



Vale S.A.

Reference Form

1. Identification of the people responsible for the content of the form

1.1 - Statement and Identification of People in Charge

Name of the person responsible for the content of the form	Eduardo de Salles Bartolomeo
Position of the person in charge	Chief Executive Officer
Name of the person responsible for the content of the form	Luciano Siani Pires
Position of the person in charge	Chief Investor Relations Officer
<u>The aforementioned officers state that:</u>	
<p>a. they reviewed the reference form;</p> <p>b. all information contained in the form complies with the provisions of CVM Instruction 480, in particular articles 14 to 19;</p> <p>c. the set of information contained therein is a true, accurate and complete portrait of the economic-financial situation of the issuer and the risks inherent to its activities and the securities issued by it.</p>	

STATEMENT OF THE CHIEF EXECUTIVE OFFICER
FOR THE PURPOSES OF ITEM 1.1 OF THE REFERENCE FORM

Eduardo de Salles Bartolomeo, a Brazilian citizen, married, engineer, bearer of Identity Card IFP/RJ no. 053253845, enrolled with the CPF/MF under no. 845.567.307-91, residing and domiciled in the city and state of Rio de Janeiro, with business address at Torre Oscar Niemeyer, Praia de Botafogo, 186, suite 701 to 1901, Botafogo, CEP 22250-145, in the city and state of Rio de Janeiro, in the capacity of Chief Executive Officer of **Vale S.A.**, a corporation with its principal place of business in the city and state of Rio de Janeiro, at Torre Oscar Niemeyer, Praia de Botafogo, 186, suite 701 to 1901, Botafogo, CEP 22250-145, enrolled with the CNPJ/MF under no. 33.592.510/0001-54 ("Company"), hereby states that:

- a. he reviewed the Company's Reference Form;
- b. all information contained in the Reference Form complies with the provisions of the Securities and Exchange Commission Instruction no. 480, of December 7th, 2009, as amended, especially articles 14 to 19; and
- c. the set of information contained therein is a true, accurate and complete portrait of the Company's economic-financial situation and the risks inherent to its activities and the securities issued by it.

Eduardo de Salles Bartolomeo
Chief Executive Officer

**STATEMENT OF THE CHIEF FINANCIAL OFFICER AND CHIEF INVESTOR RELATIONS OFFICER
FOR THE PURPOSES OF ITEM 1.1 OF THE REFERENCE FORM**

Luciano Siani Pires, a Brazilian citizen, married, mechanical engineer, bearer of Identity Card IFP/RJ no. 07.670.915-3, enrolled with the CPF/MF under no. 013.907.897-56, residing and domiciled in the city and state of Rio de Janeiro, with business address at Torre Oscar Niemeyer, Praia de Botafogo, 186, suite 701 to 1901, Botafogo, CEP 22250-145, in the city and state of Rio de Janeiro, in the capacity of Chief Financial Officer and Investor Relations Officer of **Vale S.A.**, a corporation with its principal place of business in the city and state of Rio de Janeiro, at Torre Oscar Niemeyer, Praia de Botafogo, 186, suite 701 to 1901, Botafogo, CEP 22250-145, enrolled with the CNPJ/MF under no. 33.592.510/0001-54 ("Company"), for the purposes of item 1.1 of the Company Reference Form, hereby states that:

- a. he reviewed the Company's Reference Form;
- b. all information contained in the Reference Form complies with the provisions of the Securities and Exchange Commission Instruction no. 480, of December 7th, 2009, as amended, especially articles 14 to 19; and
- c. the set of information contained therein is a true, accurate and complete portrait of the Company's economic-financial situation and the risks inherent to its activities and the securities issued by it.

Luciano Siani Pires
Chief Financial Officer and Chief Investor Relations Officer

1.2 - Individual statement of new holder of the position of Chief Executive Officer or Investor Relations Officer duly signed, attesting that:

Item not applicable.

2. Auditors

2.1/2.2 - Identification and Compensation of Auditors

Do you have an auditor?	YES										
CVM Code	2879										
Type of auditor	National										
Name/Corporate Name	PricewaterhouseCoopers Auditores Independentes										
CPF/CNPJ (Individual/Corporate Taxpayer ID)	61.562.112/0001-20										
Contract date for the services	02/15/2019										
End of service provision	Not applicable.										
Description of contracted service	<p>Provision of professional services related to the audit of the financial statements, both for local and international purposes, and work on certification of internal controls (in compliance with "Section 404" of the Sarbanes-Oxley Act of 2002), for the fiscal years from 2019 to 2023, and the Review of Quarterly Financial Information (ITR) from the period ended March 31, 2019 to the period ending December 31, 2023.</p> <p>In addition, the scope of work also encompasses the provision of other audit-related services, such as issue of previously agreed procedural reports in accordance with NBC TSC4400.</p>										
Total amount of compensation for independent auditors separated by service	<p>The services contracted with the Company's external auditors for the fiscal year ended December 31, 2020 for the Company and its subsidiaries were as follows:</p> <table> <tr> <td></td><td>In thousands of reais</td></tr> <tr> <td>Accounting Audit</td><td>26,561</td></tr> <tr> <td>Audit - Sarbanes Oxley Act</td><td>2,724</td></tr> <tr> <td>Audit-Related Services ⁽¹⁾</td><td>2,231</td></tr> <tr> <td>Total External Audit Services</td><td>31,517</td></tr> </table> <p>⁽¹⁾ Those services are mostly procured for periods of less than one year.</p>		In thousands of reais	Accounting Audit	26,561	Audit - Sarbanes Oxley Act	2,724	Audit-Related Services ⁽¹⁾	2,231	Total External Audit Services	31,517
	In thousands of reais										
Accounting Audit	26,561										
Audit - Sarbanes Oxley Act	2,724										
Audit-Related Services ⁽¹⁾	2,231										
Total External Audit Services	31,517										
Reason for substitution	Not applicable.										
Reason presented by the auditor in case of disagreement with the issuer's justification	Not applicable.										

Name of technician responsible	Period of service provision	CPF (Individual Taxpayer ID)	Address
Patricio Marques Roche	As from 01/01/2019	993.005.407-34	<p>Rua do Russel, 804, 6º e 7º Ed. Manchete – Glória, Rio de Janeiro/RJ, 22210-907</p> <p>E-mail: patricio.roche@pwc.com Telephone: (21) 3232-6112</p>

Do you have an auditor?	YES
CVM Code	418-9
Type of auditor	National
Name/Corporate Name	KPMG Auditores Independentes
CPF/CNPJ (Individual/Corporate Taxpayer ID)	57.755.217/0001.29
Contract date for the services	04/30/2014
End of service provision	12/31/2018
Description of contracted service	<p>Provision of professional services related to the audit of the financial statements, both for local and international purposes, and work on certification of internal controls (in compliance with Section 404 of the Sarbanes-Oxley Act of 2002), for the fiscal years from 2014 to 2018, and the Review of Quarterly Financial Information (ITR) from June 30, 2014 to September 30, 2018.</p> <p>In addition, the scope of work also encompassed the provision of other audit-related services, such as issuing previously agreed procedural reports in accordance with NBC TSC4400.</p>
Total amount of compensation for independent auditors separated by service	KPMG did not provide services to the Company in the last fiscal year ended December 31, 2020.
Reason for substitution	The replacement of KPMG by PwC aimed to comply with the provisions of art. 31 of CVM Instruction 308/99, which determines the rotation of certifying accountants every five years, and was approved by the current auditors.
Reason presented by the auditor in case of disagreement with the issuer's justification	Not applicable.

Name of technician responsible	Period of service provision	CPF (Individual Taxpayer ID)	Address
Manuel Fernandes Rodrigues de Sousa	From April 1, 2014 to July 25, 2018	783.840.017-15	Rua do Passeio, 38, setor 2, 17º andar – Centro/RJ Edifício Passeio Corporate 20021-290, Rio de Janeiro, RJ E-mail: mfernandes@kpmg.com.br Telephone: (21) 2207-9400
Bernardo Moreira Peixoto Neto	From July 26, 2018 to December 31, 2018	877.721.757-87	Rua do Passeio, 38, setor 2, 17º andar – Centro/RJ Edifício Passeio Corporate 20021-290, Rio de Janeiro, RJ E-mail: bmoreira@kpmg.com.br Telephone: (21) 2207-9400

2.3 - Other relevant information

Vale's Board of Directors, at a meeting held on September 27, 2018, approved the hiring of PricewaterhouseCoopers Auditores Independentes ("PwC"), for the provision of independent auditing services for the Company's financial statements, for a period of five years from the year 2019. That service started to be provided as of the review of the quarterly information ("ITR") for the three-month period ended March 31, 2019.

At a meeting of the Board of Directors, held on September 10, 2020, Vale's Policy for the Hiring of Independent Auditors was approved, which aims to establish the guidelines and principles for the contracting of audit services and audit-related or non-audit services for the consolidated financial statements of the Company and its subsidiaries, in compliance with the requirements provided for in applicable legislation.

Said policy sets forth specific internal procedures for the initial hiring of independent auditors, as well as the subsequent hiring of other services from the independent audit firm, based on principles that preserve the auditor's independence.

All contracts are assessed by the Audit Committee, which is responsible for recommending the hiring of independent auditors for the approval by the Board of Directors, as defined in the Company's Bylaws. The policy also contains the provision of specific services that are prohibited to the independent auditor, even though he/she declares to be independent for the service.

3. Selected financial information

3.1 - Financial Information - Consolidated

(In Reais)	Fiscal year (December 31, 2020)	Fiscal year (December 31, 2019)	Fiscal year (December 31, 2018)
Stockholders' equity	180,986,000,000.00	157,149,000,000.00	173,683,000,000.00
Total Assets	478,130,000,000.00	369,671,000,000.00	341,713,000,000.00
Net Revenue / Financial Intermediary Revenue /Insurance Premium Earned	208,529,000,000.00	148,640,000,000.00	134,483,000,000.00
Gross Profit or Loss	109,962,000,000.00	64,804,000,000.00	53,282,000,000.00
Net (Loss) Income	26,713,000,000.00	(6,672,000,000.00)	25,657,000,000.00
Number of Shares, Ex-Treasury	5,129,910,954	5,128,282,469	5,126,258,410
Equity Value of Shares (Reais/Unit)	35.28	30.64	33.54
Basic Earnings or Loss per Share	5.21	(1.30)	4.95
Diluted Earnings or Loss per Share	5.21	(1.30)	4.95

3.2 - Non-gAAP measures

a. value of non-gAAP measures

The Company uses Adjusted EBITDA, Adjusted EBIT, net debt (cash) and expanded net debt as non-gAAP measures methods.

(In R\$ million)	Fiscal year ended on December 31,		
	2020	2019	2018
Adjusted EBITDA	87,340	42,307	61,065
Adjusted EBIT	70,661	27,556	48,825
Net debt (Cash)	(4,666)	19,669	37,390
Expanded net debt	69,302	71,607	60,418

b. reconciliations between the amounts disclosed and the amounts of the audited financial statements

(In R\$ million)	Fiscal year ended on December 31,		
	2020	2019	2018
Net income (loss) attributable to the Vale's shareholders	26,713	(6,672)	25,657
Net income (loss) attributable to noncontrolling interests	(1,810)	(2,025)	117
Net income (loss)	24,903	(8,697)	25,774
(+) Income taxes	3,025	(2,509)	(966)
(+) Financial result, net	24,140	13,446	18,058
EBIT	52,068	2,240	42,866
(+) Depreciation, amortization and depletion	16,679	14,751	12,240
EBITDA	68,747	16,991	55,106
Equity results and other results in associates and joint ventures ⁽¹⁾	5,436	2,684	693
Dividends received and interest on loans from associates and joint ventures ⁽²⁾	1,338	1,870	1,433
Impairment and disposal of non-current assets ⁽³⁾	11,819	20,762	3,523
Loss from discontinued operations	-	-	310
Adjusted EBITDA of the continued operations	87,340	42,307	61,065
Depreciation, amortization, and depletion	(16,679)	(14,751)	(12,240)
Adjusted EBIT of the continued operations	70,661	27,556	48,825

(1) For the fiscal year ended December 31, 2018, this line included dividends received and interest on loans from associates and joint ventures, which started to be reported separately as from the fiscal year ended December 31, 2019.

(2) Includes the yield on the financial instrument in the coal segment.

(3) For the year ended December 31, 2018, this line was described as "special events".

(in millions of Reais)	On December 31,		
	2020	2019	2018
Short-term loans and financing ⁽¹⁾	4,602	4,895	3,889
Gross debt ⁽¹⁾	69,426	52,625	59,928
(-) Cash, cash equivalents and financial investments	70,086	29,627	22,413
(-) Short-term financial investments	4,006	3,329	125
Net debt (Cash)	(4,666)	19,669	37,390
(+) Lease liabilities (IFRS 16) ⁽¹⁾	8,662	7,218	-
(+) Foreign exchange swaps ⁽²⁾	4,591	62	1,830
(+) Refinancing program ("REFIS") ⁽¹⁾	14,262	15,749	16,852
(+) Liabilities related to Brumadinho ⁽¹⁾	23,774	12,022	-
(+) De-characterization of dams ⁽¹⁾	11,897	10,034	-
(+) Liabilities related to associates and joint ventures ⁽¹⁾	10,782	6,853	4,346
Expanded net debt	69,302	71,607	60,418

(1) Includes the amounts reported in current liabilities and non-current liabilities.

(2) It relates to asset and liability derivatives, related to interest rate and foreign exchange risk.

c. reason why the Company understands that such measurement is more appropriate for the correct understanding of its financial condition and the result of its operations

The Company calculated Adjusted EBITDA and Adjusted EBIT according to CVM Instruction No. 527, dated October 04, 2012, as amended ("CVM Instruction No. 527").

The bodies in charge of making operational, resource allocation and performance evaluation decisions, which include the Board of Executive Directors or the Board of Directors, use Adjusted EBITDA as a performance measure. The Adjusted EBITDA corresponds to the operating profit or loss plus dividends received from investees and interest on loans from associates and joint ventures, excluding (i) depreciation, depletion and amortization, and (ii) impairment and write-off of non-current assets. The Adjusted EBITDA presents an approximate measure of the Company's cash generation, since it excludes non-recurring effects and non-cash.

Adjusted EBIT corresponds to Adjusted EBITDA, including depreciation, amortization, and depletion.

The definitions of Adjusted EBITDA and Adjusted EBIT used by Vale may not be compared to Adjusted EBITDA and Adjusted EBIT disclosed by other companies.

The Company evaluates Net Debt (Cash) and Expanded Net Debt in order to ensure the long-term continuity of its business. The Company has adopted the concept of Expanded Net Debt to manage its liquidity and cash flow, and includes, in addition to the obligations contracted with financial institutions, also the obligations to deliver cash to third parties outside its regular operating process, specifically the liabilities related to the liabilities of the Brumadinho event, Renova Foundation, Samarco and REFIS.

The Company reports Net Debt (Cash) and Expanded Net Debt as additional information and should be considered in conjunction with other measures and indicators for a better understanding of the Company's financial performance and conditions.

Adjusted EBITDA, Adjusted EBIT, Net Debt (Cash) and Expanded Net Debt are not measures recognized by the Accounting Practices Adopted in Brazil (BR GAAP) or by the International Financial Reporting Standards ("IFRS"), issued by the International Accounting Standard Board ("IASB"), nor do they represent cash flow for the periods reported and should not be considered as substitutes for net income, as indicators of operating performance or as substitutes for cash flow, as an indicator of the Company's liquidity. They do not have a standard meaning and may not be comparable to similar measures used by other companies.

3.3 - Events subsequent to the latest financial statements

The Company's Consolidated Financial Statements for the fiscal year ended December 31, 2020 were approved by the Company's Board of Directors and issued on February 25, 2021.

The Company's Consolidated Financial Statements, pursuant to the rules provided for in the Technical Pronunciation CPC 24, as approved by CVM Deliberation No. 593/09, contain the following subsequent events:

- 1. On January 20, 2021, the Company signed a Heads of Agreement ("HoA") with Mitsui & Co., Ltd. ("Mitsui"), allowing the parties to structure Mitsui's withdrawal from Vale Moçambique S.A. and the Nacala Logistics Corridor ("CLN"). The HoA provides for that Vale will buy Mitsui's stake in the mine and logistics assets for an immaterial value and will commit to settling CLN's Project Finance, the remaining balance of which is R\$ 12,992 million (US\$ 2,500 million) as of December 31, 2020. In the event of closing the transaction, Vale will also have control of CLN and, therefore, will consolidate its assets and liabilities in its balance sheet. The parties' objective is to conclude the transaction in 2021, which is subject to usual conditions precedent.*
- 2. On February 4, 2021, Vale entered into a Judicial Agreement for Full Reparation ("Global Agreement") with the State of Minas Gerais, the Public Defender's Office of the State of Minas Gerais, and the Public Prosecution Offices of the Federal Government and of the State of Minas Gerais, for full reparation of environmental and social damage resulting from the failure of the Brumadinho dam. Thus, the Company recognized an additional expense of R\$ 19,924 million in income for the year ended December 31, 2020.*
- 3. On February 9, 2021, the Company informed it had completed an investment of R\$ 33 million (US\$ 6 million) in Boston Metal to acquire a minority interest and promote the development of a technology focused on reducing carbon dioxide emissions in steel production. Boston Metal has a diversified shareholder base, which includes venture capital funds, mining companies and private investors.*
- 4. On February 11, 2021, the Board of Directors resolved and submitted for approval to the General Shareholders' Meeting the partial spin-off of the wholly-owned subsidiary Minerações Brasileiras Reunidas S.A., with the merger of the spun-off portion into Vale S.A.*
- 5. On February 23, 2021, Vale was assessed for the collection of IRPJ (Corporate Income Tax) and CSLL (Social Contribution on Net Income) and penalties, in the amount of R\$ 3,423 million, related to the disallowance of interest on the stockholders' equity expenses deducted in the base year of 2017. There was also a reduction in tax loss and negative base, whose tax effect is R\$ 698 million, plus penalty and interest. The Company will file an objection within the appropriate term, and the prognosis for loss, based on the previous analysis of the tax treatment adopted, is classified as likely.*
- 6. On February 25, 2021, the Board of Directors approved the remuneration to shareholders in the total gross amount of R\$ 21,866 million, equivalent to R\$ 4.262386983 per share, the payment of which was made on March 15, 2021, of which R\$ 4,288 million was interest on the stockholders' equity and R\$ 17,578 million as dividends.*

3.4 - Income Allocation Policy

Fiscal year ending on December 31,			
	2020	2019	2018
a. Rules on Earning Retention	Pursuant to Articles 39 and 40 of the By-laws, after the legal reserve is established, the creation of (i) a tax incentive reserve, to be created in accordance with the legislation in force, and of a (ii) investment reserve, must be considered in the proposal for the distribution of profits, in order to ensure the maintenance and development of the main activities that make up the Company's corporate purpose, in an amount not exceeding 50% of net income distributable up to the maximum limit of the Company's capital stock.		
a.i Values for Earning Retentions	Out of the total net income of R\$ 26,712,688,500.84 for the year, (i) R\$ 1,335,634,425.04 were allocated to the legal reserve, (ii) R\$ 9,061,939.21 to the tax incentive reserve, and (iii) R\$ 3,502,326,464.04 to the investment reserve.	The loss of R\$ 6,671,445,224.86 for the year was fully absorbed through investment reserves.	Out of the total net income of R\$ 25,656,525,836.23 for the year, (i) R\$ 1,282,826,291.81 were allocated to the legal reserve, (ii) R\$ 1,496,628,728.93 to the tax incentive reserve, and (iii) R\$ 15,182,992,215.49 to the investment reserve.
a.ii Percentages in relation to total reported income	Out of the total net income for the year, (i) 5% were allocated to the legal reserve, (ii) 0.03% to the tax incentive reserve, and (iii) 13.11% to the investment reserve.	Loss for the year 100% absorbed through investment reserve.	Out of the total net income for the year, (i) 5% were allocated to the legal reserve, (ii) 6% to the tax incentive reserve, and (iii) 59% to the investment reserve.
b. Rules on dividend distribution	<p>Pursuant to Article 41 of the By-Laws, at least 25% of the annual net profits, adjusted according to the law, will be used to pay dividends.</p> <p>In the last three fiscal years, pursuant to Article 5, Paragraph 5, of the By-laws, the holders of preferred shares were entitled to receive dividends to be distributed, as calculated pursuant to Chapter VII of the By-laws, in accordance with the following criterion:</p> <p>(a) priority in receiving the dividends corresponding to (i) a minimum of 3% of the net equity value of the share, as calculated based on the financial statements drawn up, which served as reference for the payment of dividends, or (ii) 6% calculated over the part of the capital constituted by this class of share, whichever of the two is greater;</p> <p>(b) the right to share distributed profits, under equal conditions with the common shares, after being assured the latter a dividend equal to the minimum priority established in accordance with item "a" above;</p> <p>(c) the right to share any bonuses, under equal conditions with the common shares, observing the priority established for the distribution of dividends.</p>		
c. Frequency of dividend distributions	Out of the results for the fiscal year of 2020, R\$ 4,288,000,000.00 were paid as interest on the shareholders' equity and R\$ 17,577,665,672.55 by way of dividends, which were paid on March 15, 2021.	None.	Out of the results for the fiscal year of 2018, R\$ 6,801,433,061.10 were paid as interest on the shareholders' equity and R\$ 892,645,538.90 by way of dividends, which were paid on September 20, 2018.
d. Any restrictions on the distribution of dividends enforced by legislation or	None.	None.	None.

special
regulation
applicable to the
issuer, as well as
contracts and
court,
administrative or
arbitration
decisions.

e. If the issuer has a formally approved income allocation policy, stating the body responsible for approval, date of approval and, if the issuer discloses the policy, sites on the World Wide Web where the document can be consulted.

The compensation policy applicable to the 2020 fiscal year is the compensation policy approved on March 29, 2018 by the Board of Directors, which is available for consultation at the CVM's website (www.gov.br/cvm) and the Company's website (www.vale.com). Such policy was suspended on January 27, 2019, due to the failure of Dam I at the Córrego do Feijão Mine, in Brumadinho (MG), and was reinstated, without any changes, on July 29, 2020. For further information, see item 3.9 of this Reference Form.

The compensation policy applicable to the 2019 fiscal year is the compensation policy approved on March 29, 2018 by the Board of Directors, which is available for consultation at the CVM's website (www.gov.br/cvm) and the Company's website (www.vale.com). Such policy was suspended on January 27, 2019, due to the failure of Dam I at the Córrego do Feijão Mine, in Brumadinho (MG). For further information, see item 3.9 of this Reference Form.

The compensation policy applicable to the 2018 fiscal year is the compensation policy approved on March 29, 2018 by the Board of Directors, which is available for consultation at the CVM's website (www.gov.br/cvm) and the Company's website (www.vale.com).

3.5 - Distribution of dividends and net income retention

(In Reais)	Fiscal year 12/31/2020	Fiscal year 12/31/2019	Fiscal year 12/31/2018
Adjusted net income	25,367,992,136.59	(6.671.445.226,01)	22,877,070,815.49
Dividend distributed in relation to adjusted net income	86.193915	0.00	33.632272
Rate of return in relation to the issuer's net assets	14.759533	0.00	15.056415
Total distributed dividend	21,865,665,672.55	0.00	7,694,078,600.00
Retained net income	4,847,022,828.29	0.00	17,962,447,236.23
Date of approval of the retention	04/30/2021	04/30/2020	04/30/2019

01/01/2020 to 12/31/2020

Type of Share	Class of Share	Distributed Dividend	Amount (Unit)	Dividend Payment
Common Shares	-	Interest on the stockholders' equity	4,288,000,000.00	03/15/2021
Common Shares	-	Mandatory dividend	17,577,665,672.55	03/15/2021

01/01/2019 to 12/31/2019

Type of Share	Class of Share	Distributed Dividend	Amount (Unit)	Dividend Payment
-	-	-	0.00	-

01/01/2018 to 12/31/2018

Type of Share	Class of Share	Distributed Dividend	Amount (Unit)	Dividend Payment
Common Shares	-	Interest on the stockholders' equity	6,801,433,061.10	09/20/2018
Common Shares	-	Mandatory dividend	892,645,538.90	09/20/2018

3.6 - Report of dividends as retained earnings or reserves

Dividends distributed to the account of (in R\$ thousand):	Fiscal year ending on December 31,		
	2020	2019	2018
Retained Earnings	-	-	-
Realization of Reserves	-	7,253,260 ⁽¹⁾	-

- ⁽¹⁾ On December 19, 2019, the Board of Directors decided on the statement of interest on the stockholders' equity for the calendar-year of 2019, calculated on the basis of the appropriated retained earnings of the balance sheet as of September 30, 2019. This decision does not change the Board of Directors' determination to suspend the Shareholders' Compensation Policy. The allocation of interest on stockholders' equity will be decided on in due course. For further information, see item 3.9.

3.7 - Level of indebtedness

Fiscal Year	Sum of current liabilities and non-current liabilities	Type of ratio	Indebtedness ratio	Description and reason for using another ratio
12/31/2020	R\$198,903,885,563.00	Indebtedness ratio	(0.05)	Not applicable.
12/31/2020	0	Other ratios	0.81	<p>Gross debt/Adjusted EBITDA. The ratio is based on the US Dollar. Gross debt consists of the sum of "Short-term loans and financing", "Current installment of long-term loans" and "Long-term loans and financing". Adjusted EBITDA is calculated as described in item 3.2.b of this annualized Reference Form for the last twelve months - ADJUSTED EBITDA.</p> <p>The Gross Debt/Adjusted EBITDA ratio indicates the approximate time it would take for a company to pay all debts exclusively using its cash generation.</p> <p>The Company adopts the Gross Debt/Adjusted EBITDA ratio and the interest coverage ratio of Adjusted EBITDA/Interest expenses. These ratios are widely used by the market (rating agencies and financial institutions) and serve as a benchmark for assessing the Company's financial situation, in addition to being included in covenant clauses in certain loan and financing contracts.</p>
12/31/2020	0	Other ratios	20.85	<p>Adjusted EBITDA/Interest Expense - This ratio is based on US Dollar. Adjusted EBITDA is calculated as described in item 3.2.b of this Reference Form. Interest expenses comprise the sum of all appropriated or capitalized interest, whether paid or not, in a given period, arising from the Company's indebtedness.</p> <p>The interest coverage ratio (Adjusted EBITDA/Interest expenses) is used to determine the company's capacity to generate sufficient cash flow to cover its interest expenses.</p> <p>The Company adopts the Gross Debt/Adjusted EBITDA ratio and the interest coverage ratio of Adjusted EBITDA/Interest expenses. These ratios are widely used by the market (rating agencies and financial institutions) and serve as a benchmark for assessing the Company's financial situation, in addition to being included in covenant clauses in certain loan and financing contracts.</p>

3.8 - Obligations according to nature and maturity

Latest Accounting Information (December 31, 2020)							
Type of obligation	Type of security	Other security or liens	Less than one year	One to three years	Three to five years	Over five years	Total
Debt securities	Unsecured		1,371,463,600.82	5,624,649,878.17	239,464,740.80	38,899,087,808.64	46,134,666,028.43
Loans	Unsecured		2,730,663,983.68	6,743,188,147.72	11,108,040,608.69	1,796,185,282.03	22,378,078,022.12
Loans	Security interest		501,703,421.96	412,858,673.42	-	-	914,562,095.38
Total			4,603,831,006.46	12,780,696,699.31	11,347,505,349.49	40,695,273,090.67	69,427,306,145.93
Note: The information contained in this item refers to the Company's consolidated financial statements. The debt securities field comprises debt securities and transactions in the stock market.							

3.9 - Other relevant information

Additional Information on Financial Agreements

Part of the financing agreements entered into by the Company, as well as the outstanding debt securities issued by the Company (for more information on such securities, see item 18 of this Reference Form) contain clauses that determine the early maturity of outstanding installments in case of cross-acceleration of another financial agreement entered into with the same counterparty and/or any other financial agreement.

For more information related to contract covenants, see item 10.1 (f).

Additional Information on Remuneration Policies

At a meeting held on March 29, 2018, the Board of Directors approved a new Shareholders' Remuneration Policy, replacing the previous policy, the content of which is available for consultation at the CVM's website (www.gov.br/cvm) and the Company's website (www.vale.com). According to said approved policy:

- The Shareholders' remuneration will be composed of two semiannual installments, the first in September of the current year and the second in March of the following year, provided that the Board of Directors may declare interest on capital in the month of December of each year for payment in March of the subsequent year. Such amounts will be reduced from the March installment.
- The minimum amount of the remuneration will be 30% of the Adjusted EBITDA, less Sustaining Investments calculated based on the first-half of the year results for the September installment, and on the second-half of the year results for the March installment.
- The Board of Directors may approve additional remuneration through the distribution of extraordinary dividends.

According to the Press Release disclosed by the Company on January 27, 2019, due to the failure of Dam I of the Córrego do Feijão Mine, in Brumadinho (MG), the Board of Directors, in a extraordinary meeting held on January 27, 2019 decided for and approved, among other matters, the suspension of the Shareholders' Remuneration Policy and, consequently, the non-payment of dividends and interest on capital, as well as any other resolution on the repurchase of its own issued shares.

According to the Press Release disclosed by the Company on July 29, 2020, the Board of Directors decided, on the same date, to reinstate, without changes, the Shareholders' Remuneration Policy suspended in January 2019.

4. Risk factors

4.1 – Description of risk factors

(a) Risks related to a Dam Rupture

The rupture of a dam or similar structure can cause serious damage.

The Company has several dams and other geotechnical structures. Some of these structures were built using the "upstream" rising method, which presents stability risks, mainly related to liquefaction. The rupture of any of these structures can cause the loss of lives and serious off-balance sheet, material and environmental damage, and may have adverse effects on Company's business and reputation, as evidenced by the consequences of the Brumadinho dam rupture. Some *joint ventures* and investments, including Samarco and Mineração Rio do Norte S.A. (MRN), also have dams and similar structures, including structures built using the upstream rising method.

Recently approved laws and regulations require the Company to decharacterize all of its upstream dams on a specified schedule. Implementing the decharacterization plan will require significant expenses, and the decharacterization process can take a long time. As of December 31, 2020, the provision for the completion of the structural decharacterization plan is USD 2.289 billion and Samarco's structure is USD 221 million, subject to review, depending on new adjustments to the decharacterization projects.

Works related to the decharacterization process can impact the geotechnical stability of certain upstream tailings structures, increasing the risk of rupture of these structures especially in the early stages of this process. In extreme cases, this process, when associated with other conditions, can contribute to the rupture of structures. Thus, depending on the emergency level of the structure, the evacuation of areas downstream of critical dams, the construction of physical barriers (containment structures) to contain the tailings in case of failure and/or other safety measures are carried out.

The rupture of Dam I in Brumadinho has adversely affected the Company's business, financial condition and reputation, and the overall impact of the dam rupture is still uncertain.

In January 2019, the Brumadinho dam rupture resulted in 270 fatalities or presumed deaths, as well as off-balance sheet, material and environmental damage. This event has adversely affected and will continue to adversely affect Vale's operations. For further information, see item 7.9 of this Reference Form.

- *Liabilities and legal proceedings.* The Company is a defendant in several lawsuits and investigations related to the dam rupture, including criminal investigations in Brazil and securities litigation in the United States. Additional proceedings and investigations may be filed in the future. Unfavorable results in these proceedings may have a relevant adverse effect on the Company's business and financial condition. For more information, see items 4.3 to 4.7 and 7.9 of this Reference Form.
- *Suspension of operations.* After the rupture of the dam, several operations were suspended, which negatively impacted and may continue to affect the production and cash flows of the Company. It is possible that some of these operations may not be resumed, or that the schedule for resuming some operations is delayed. For further information, see item 7.9 of this Reference Form.
- *Impact on financial performance.* The dam rupture continues to have a significant impact on the Company's financial performance, which includes reduced revenues due

to the suspension of operations, increased expenses with assistance and remediation, reduction in the recoverable value of fixed assets, provisions for costs of decharacterization, restoration and recovery and provisions for legal proceedings. For further information, see item 7.9 of this Reference Form.

- *Increase in production costs and capital investments.* The Company has made investments and adjustments to operations and it may be necessary to make additional investments and adjustments to increase production, mitigate the impact on suspended operations or comply with additional safety requirements. Alternative disposal methods may also have to be used to continue operating some of the mines and plants, particularly those that depend on tailings dams. These alternative methods may be more expensive or require significant capital investments in mines and plants. As a result, costs are expected to increase, which may have a relevant adverse effect on the Company's businesses and financial conditions.
- *Additional regulation and restrictions to mining operations.* The rules on mining activities and auxiliary activities, such as dam safety, became stricter after the rupture of Brumadinho dam. Additional regulation may be approved. The licensing process of the Company's operations became longer and subject to further uncertainties. In addition, external experts may be reluctant to attest to the stability and safety of the Company's dams, as a result of increased liability risks. If any of the Company's dams are unable to meet safety requirements or if the Company is unable to obtain the required certification for any of its dams, the Company may have to suspend the operations, evacuate areas around the dam, reallocate communities and take other emergency actions. These measures are costly,, and may have an adverse impact on the business, in addition to causing financial and image impacts on the Company.
- *Additional environmental impacts.* The full environmental consequences of the dam rupture remain uncertain and further damage may be identified in the future. In addition, failure to implement the Company's decharacterization plan for dams and measures to prevent new accidents may also lead to additional environmental damages in our operations and result in additional claims, investigations and lawsuits against the Company.
- *Reserves.* New regulations applicable to the licensing and operation of dams have caused, and may still cause, reductions in reported reserves or in the reclassification of reserves proven as probable reserves.
- *Increase in insurance costs.* The Company's insurance cost is expected to increase, and the Company may not be able to obtain insurance for certain risks.
- *Higher taxation and other obligations.* The Company may be subject to new or increased taxes or other obligations to finance remediation measures and offset the direct and indirect impacts of rupture of dams.
- *Social license to operate.* The damages caused to the Company's image can affect its acceptance by the communities where it operates, making it difficult or even preventing its activities or obtaining essential licenses and authorizations.

(b) Risks related to the Company

Events related to the coronavirus pandemic may have a relevant adverse impact on the

Company's financial conditions or operating results.

In December 2019, the outbreak of Coronavirus Disease 2019 (COVID-19) spread all over the world. In March 2020, the World Health Organization (WHO) declared a COVID-19 pandemic outbreak. The disease has caused multiple fatalities worldwide, including in Brazil and Canada, where the Company has its main operations. The consequences for the global economy and financial markets have been significant and the full impact is still uncertain. It is unclear how the COVID-19 pandemic will evolve over the course of 2021 and beyond.

- In 2020 and continuing in 2021, government authorities in several jurisdictions imposed blockages or other restrictions in order to contain the virus and several companies suspended or reduced operations.
- The Company, its customers, suppliers and service providers may face restrictions imposed by regulators and authorities. These restrictions can result in difficulties related to employee absenteeism and, consequently, in insufficient contingent to operate in some locations, interruption of our supply chain, deterioration in the financial health of customers, higher costs and expenses associated with the suspension of the work of contractors on non-essential projects, operational difficulties, such as the postponement of the resumption of production capacity due to delays in inspections, assessments and authorizations, among other operational difficulties. The Company may need to take other contingency measures or, where appropriate, suspend additional operations, which may have an adverse material impact on production and sales, result in additional costs and expenses, and possibly adversely impacting its financial conditions or operating results.
- In 2020, the Company reduced some operations and revised the plans of others. For further information, see item 7.9 of this Reference Form.
- The Company transferred a significant number of employees to the remote work regime in an effort to mitigate the spread of COVID-19. Remote work can magnify certain business risks due to increased demand for information technology resources combined with increased risk of *phishing scams* and other cybersecurity attacks, increased risk of unauthorized dissemination of sensitive personal or confidential information and increased risk of business interruptions. The Company may be more exposed to lawsuits from employees alleging unpaid overtime or other work-related claims. These risks may result in additional costs and expenses for the Company, affect its ability to operate effective internal control over financial reporting and adversely affect its reputation.
- As a result of the current coronavirus pandemic outbreak, commercial activities worldwide, including construction and manufacturing activities, which are two of the main demand factors for iron ore and other metals, have been significantly impacted and an overall recovery in these industries can take a long time. If the coronavirus outbreak continues and efforts to contain the pandemic, whether governmental or otherwise, further limit commercial activity or the Company's ability to transport its products to customers in general, over a long period of time, the demand for its products may be adversely affected. All of these factors may also have a relevant adverse impact on Company's financial conditions or operating results. For more information, see items 7.9 and 10.3 of this Reference Form.

Operational problems negatively and significantly affect Company's business and financial performance.

Inefficient project management and operational failures may lead to the suspension or reduction of Company's operations, causing a general reduction in its productivity. Operational failures may lead to failure of plants and machinery. There can be no assurance that an inefficient project management or other operational problems will not occur. Any damage to the Company's projects

or delays in its operations caused by inefficient project management or operational breakdowns can negatively and significantly affect its business and operating results.

The Company's businesses are subject to several operational risks that may adversely affect the results of its operations, such as: (i) unexpected weather conditions or other force majeure events; (ii) adverse mining conditions, delaying or hindering their ability to produce the expected amount of minerals and meeting the specifications required by customers, which can trigger price adjustments; (iii) accidents or incidents involving its mines, industrial facilities and related infrastructure, such as dams, power plants, railways and railway bridges, ports and ships; (iv) the Company may experience delays or interruptions in the transportation of its products, including railways, ports and ships; (v) tropical diseases, HIV/AIDS, viral outbreaks such as coronavirus, and other contagious diseases in regions where some of their operations or projects are located, imposing risks to the health and safety of their employees; (vi) labor disputes that may eventually disrupt its operations; (vii) changes from time to time in market conditions or regulations may affect the economic prospects of an operation and make it inconsistent with the Company's commercial strategy; (viii) failure in obtaining the renewal of required permits and licenses, or delays or costs higher than expected in obtaining them; and (ix) interruptions or unavailability of critical information technology systems or services resulting from accidents or malicious acts.

Legal proceedings and investigations may have a relevant adverse effect on Company's business

The Company is involved in legal proceedings in which the opposing parties sought preliminary injunctions to suspend some of its operations or claim substantial amounts. In addition, according to Brazilian law, a wide range of conducts that can be considered a violation of Brazilian environmental, labor or tax laws can be considered a crime. In this way, the Company's executive directors and employees may be subject to criminal investigations and criminal proceedings related to allegations of violations of environmental, labor or tax laws, and the Company or its subsidiaries may be subject to criminal investigations and criminal proceedings related to allegations of violation of environmental laws.

Defense in these lawsuits can be expensive and time-consuming. Possible consequences of adverse outcomes in some legal proceedings include suspension of operations, payment of significant amounts, triggering of creditors' remediation and damage to reputation, which may have a relevant adverse effect on Company's operating results or financial situation. For additional information, see items 4.3 to 4.7 of this Reference Form.

Besides investigations and lawsuits related to the Brumadinho dam rupture, as a shareholder of Samarco, the Company also faces the consequences of the rupture of the Fundão tailings dam, in November 2015. Vale is involved in multiple lawsuits and investigations related to the rupture of Fundão tailings dam. Tax authorities or other Samarco creditors (which joined, on April 9, 2021, with a request for Judicial Recovery) may attempt to recover the amounts owed by Samarco, in case Samarco fails to meet its obligations or fails to restructure its debt. Failure to contain the remaining tailings in Samarco dams can cause additional environmental damage, additional impacts on operations and additional claims, fines and lawsuits against Samarco and against the Company. The Company has been funding Fundação Renova to support certain remediation measures undertaken by Samarco and also providing resources directly to Samarco to preserve its operations. If Samarco is unable to generate enough cash flows to finance the remediation measures required in these agreements, the Company will be demanded to continue financing such remediation measures. For further information, see item 7.9 of this Reference Form.

The Company's business may be adversely affected by the failure or unavailability of certain critical assets or infrastructure.

The Company has some critical assets and infrastructure to produce and transport its products to customers. Such critical assets include mines, industrial facilities, ports, railways, roads and

bridges. The failure or unavailability of any critical asset, whether resulting from natural events or operational problems, may have a relevant adverse effect on its business.

Substantially all the iron ore production in the Northern System is transported from Carajás, in the state of Pará, to the Ponta da Madeira Port, in the state of Maranhão, through the Carajás Railroad (EFC acronym in Portuguese). Any interruption at EFC or Ponta da Madeira port may significantly impact the Company's ability to sell its Northern system production. Regarding EFC, there is a particular interruption risk on the bridge over Tocantins River, where trains run on a single railway line. At Ponta da Madeira port, there is a particular interruption risk in São Marcos access channel, a deep water channel that provides access to the port. In addition, any failure or interruption of the long-distance conveyor belt (TCLD) used to transport the iron ore production from the S11D mine to the processing plant could negatively impact operations at the S11D mine.

The Company's reserve estimates may differ materially from the quantities of minerals that the Company is able to recover; the Company's estimates of mine's service life may prove to be inaccurate; stricter regulations and fluctuations in market prices and changes in operating and capital costs may make certain ore reserves uneconomical for mining; the Company may not be able to replenish its reserves.

There are numerous uncertainties inherent in estimating quantities of reserves and in projecting potential rates of future mineral production, including factors that are beyond Company's control. The reduction in Company's reserves may affect future production and cash flow generation, affect depreciation and amortization and result in asset write-offs, which may have an adverse effect on the Company's financial performance. Below are the main risks related to the reserves:

- Mine estimated service life and reserve reports involve estimating mineral deposits that cannot be measured accurately, and the accuracy of any reserve estimate is a function of the quality of available data, engineering, market prices for minerals and metals, stricter regulations, cost estimates, investments, geotechnical analysis, interpretation and geological judgment. As a result, no assurance can be given that the indicated amount of ore will be recovered or that it will be recovered at the rates provided by the Company. The Company reviews its reserve estimates periodically in light of up-to-date information and changes in the regulatory environment, which may result in a reduction in reported reserves.
- The Company's inability to obtain licenses for new operations, support structures or activities (such as dams), or to renew its existing licenses, may cause a reduction in its reserves.
- Once mineral deposits are discovered, it can take several years, from the initial drilling stages, until production is possible, during which economic feasibility of production may change. If it is proven that a project is not economically feasible when it is able to operate it, Vale may suffer substantial losses and be forced to write off its assets. In addition, the possible changes or complications involving metallurgical and other technological processes arising during the life of a project may result in delays and costs extrapolation which, in turn, may render the project economically unfeasible.
- The Company engages in mineral exploration, which is highly uncertain in nature, involves many risks and is frequently non-productive. The Company's exploration programs, which involve significant expenditures, may fail to result in the expansion or replacement of reserves depleted by current production. If the Company does not develop new reserves, it will not be able to sustain its current level of production beyond the remaining service life of its existing mines.
- Reserves are gradually depleted in the ordinary course of a given open pit or underground mining operation. As mining progresses, distances from the primary crusher and tailings deposits become longer, pits become steeper, mines may change from being open pit to

underground, and underground operations become deeper. In addition, for some types of reserves, mineralization grade decreases and hardness increases at greater depths. As a result, over time, the Company generally suffers an increase in extraction costs per unit at each mine, or it may need to make additional investments, including adaptation or constructing of processing plants and expansion and expansion or constructing of tailings dams. Several of Company's mines have been in operation for long periods, and it is likely that the Company will experience rising extraction costs per unit in the future in these operations in particular.

- As of the fiscal year ended on December 31, 2021, the Company will be required to comply with the new SEC reporting rules on mining activities. Vale is currently reviewing its declared mineral reserves and may need to adjust its declared reserves in order to report in accordance with the new rules.

The Company's projects are subject to risks that may result in an increase in costs or a delay in their implementation.

The Company is investing in maintaining and increasing its production and logistical capacity. Vale reviews, on a regular basis, the economic feasibility of its projects. As a result of such review, the Company may decide to postpone, suspend or interrupt the execution of certain projects. Its projects are also subject to a number of risks that may adversely affect its growth and profitability prospects, including the following: (i) the Company may not be able to obtain financing at attractive rates; (ii) the Company may encounter delays or costs greater than expected in obtaining the necessary equipment or services and implementing new technologies to build and operate a project; (iii) its efforts in developing projects on schedule may be hampered by the lack of infrastructure, including reliable telecommunications and power supply services; (iv) suppliers and contractors may fail to comply with their contractual obligations assumed before the Company; (v) the Company may face unexpected weather conditions or other force majeure events; (vi) the Company may fail to obtain or renew the necessary authorizations and licenses to build a project, or face delays or costs greater than those foreseen to obtain or renew them; (vii) changes in market conditions or regulations may make a project less profitable than expected at the time the work was started; (viii) there may be accidents or incidents during project implementation; and (ix) the Company may face a shortage of qualified labor.

Higher energy costs or energy shortages can adversely affect the Company's business.

Fuel oil, gas and electricity costs are a significant component of the Company's production cost, accounting for 9.0% of its total cost of goods sold in 2020. In order to meet its demand for energy, the Company depends on the following sources: oil byproducts, which accounted for 36% of total energy needs in 2020, electricity (31%), natural gas (13%), coal (16%) and other energy sources (4%).

Electricity costs accounted for 3.8% of its total cost of goods sold in 2020. In case the Company is unable to secure reliable access to electricity at acceptable prices, it may be forced to reduce production or experience higher production costs, which may, in either cases, adversely affect its operating results. The Company faces the risk of energy scarcity in the countries where it has operations and projects, especially in Brazil, due to lack of infrastructure or weather conditions, such as floods or droughts. Future shortages and government efforts to respond to or prevent scarcities may adversely impact the cost or supply of electricity for Company's operations.

Company's business may be adversely affected by the performance of its counterparties, contractors, joint venture partners or non-controlling joint ventures.

Customers, suppliers, contractors, financial institutions, joint venture partners and other third-parties may fail to comply with existing contracts and obligations, which may unfavorably impact

the Company's operations and financial results. The ability of these third parties to fulfill their obligations may be adversely affected in times of financial and economic crisis.

Significant parts of Vale's iron ore, pelletizing, nickel, coal, copper, energy and other business segments are operated through joint ventures. This may reduce the Company's control degree, as well as its ability to identify and manage risks. Vale's projections and plans for these *joint ventures* and consortia assume that its partners will fulfill their obligations to make capital contributions, purchase products and, in some cases, provide qualified and competent managerial personnel. If any of its partners fail to fulfill their commitments, the affected joint venture or consortium may not be able to operate in accordance with its business plans, or it is possible that the Company may have to increase its investment's level to put these plans into practice.

Some of the Company's investments are controlled by partners or have a separate and independent management. These investments may not fully comply with the Company's standards, controls and procedures, including health, safety, environment, integrity (including anti-corruption) and community standards. Failure by any of the contractors, partners or *joint ventures* in adopting appropriate standards, controls and procedures can lead to higher costs, reduced production or environmental, legal, reputational, health and safety incidents or accidents, which may adversely affect the Company's results and reputation.

Failures in the Company's cybersecurity controls, information technology, operational technology and telecommunications system may adversely affect the Company's business and its reputation.

The Company strongly relies on cybersecurity controls, information technology, operational technology and telecommunications systems for the operation of many of its business processes. Failures in these controls, whether caused by obsolescence, technical flaws, negligence, accident or cyber attacks, may result in the disclosure or theft of confidential information, loss of data integrity, misappropriation of funds, and interruption in the Company's business operations and impact the Company's ability to report its financial results. The Company may be the target of attempts to obtain unauthorized access to information technology and operational technology systems through the Internet, including sophisticated and coordinated attempts, often referred to as advanced persistent threats. The interruption of critical controls on cybersecurity, information technology, operational technology or telecommunications systems, as well as data breaches, may damage the Company's reputation and have a significant adverse effect on the Company's operating performance, revenue and financial condition.

The Company is subject to data protection and privacy laws and regulations, including the European Union's General Data Protection Regulation (GDPR) and Brazilian Law No. 13,709 (General Data Protection Law or LGPD). Any failure to comply with these laws and regulations may result in proceedings or lawsuits against the Company, the imposition of fines or penalties or reputational damage, which may have an adverse effect on the Company and its business, reputation and operating results.

Lower cash flows, resulting from the suspension of operations or prices' reduction of Company's products, may adversely affect the Company's credit ratings, as well as the cost and availability of financing.

Suspension of operations or a decline in the prices of the Company's products may adversely affect its future cash flows, credit ratings and its ability to obtain financing at attractive rates. It can also negatively affect its ability to finance its capital investments, including disbursements necessary to remedy and compensate for damages resulting from the rupture of Brumadinho dam, provide the necessary financial guarantees to obtain licenses in certain jurisdictions, pay dividends and meet financial commitments (covenants) in some of its long-term debt instruments. For more information, see items 4.2 and 10.1 of this Reference Form.

The Company's governance, internal controls and compliance processes may fail to prevent violations of legal, accounting, regulatory, ethical or governance standards.

The Company operates in a global environment and its activities extend across countless jurisdictions and across complex regulatory structures with growing inspection activities all over the world. Vale is required to comply with a wide range of laws and regulations in the countries where it operates or does business, including anti-corruption, international sanctions, anti-money laundering and related laws and regulations. The Company's governance and compliance processes, which include the review of internal controls over financial statements, may not identify or prevent future violations of legal, regulatory, accounting, governance or ethical standards. The Company may be subject to breaches of its Code of Conduct, anti-corruption policies or other internal policies, or violations of business conduct protocols and to cases of fraudulent behavior, corrupt practices and dishonesty by its employees, contractors or other agents. This risk is aggravated by the fact that Vale has a large number of contracts with local and foreign suppliers, as well as by the geographical distribution of its operations and the wide variety of counterparties involved in its business. Failure to comply with applicable laws and other standards by the Company may subject it to investigations by the authorities, litigation, fines, loss of its licenses to operate, return of profits, involuntary dissolution and reputational damage.

The Company may not have adequate insurance coverage for some of the business risks.

The Company's businesses are, generally, subject to a number of risks and hazards, which could affect persons, assets and the environment. The insurance that Vale maintains against risks that are typical in its business may not provide adequate coverage. Insurance against some risks (including liabilities for environmental damage, damages resulting from the rupture of dams, spillage or leakage of hazardous substances and interruption of certain commercial activities) may not be available at a reasonable cost or in any way. Even when available, the Company may self-insure in cases where it determines that this will bring it a higher cost-benefit ratio. As a result, accidents or other negative events involving its mining, production or transportation facilities may not be covered by insurance and may have a relevant adverse effect on its operations.

Labor disputes may interrupt the Company's operations eventually.

A substantial number of Company's employees and some of the employees of its subcontractors are represented by unions and are protected by collective labor agreements or collective negotiations, subject to periodic negotiation. Strikes and other labor stoppages in any of its operations are able to negatively affect the operation of such facilities, the completion deadline and the cost of the Company's main projects. For more information on labor relations, see item 14 of this Reference Form. Furthermore, the Company may be adversely affected by labor stoppages involving third parties who provide it with goods or services.

It may be difficult for investors to enforce any court order rendered outside Brazil against the Company or any of its associates.

Company's investors may be located in jurisdictions outside Brazil and may file suits against it or against the members of the Board or executive officers in the Courts of their home jurisdictions. Vale is a Brazilian company, and the majority of its officers and directors reside in Brazil. The vast majority of Company's assets and the assets of its directors and Board members are likely to be located in jurisdictions other than those of its foreign investors. It might not be possible for investors outside Brazil to perform summons within their home jurisdictions against the Company or its officers or Board members who reside outside their jurisdictions. In addition, a conclusive foreign judgment may be enforced in Brazilian Courts without a new examination of the merit, only if previously ratified by the Superior Court of Justice, and ratification shall only be granted if the foreign judgment: (i) complies with all the formalities required for its enforceability under the law of the country where it was rendered; (ii) has been rendered by a competent court after the due summons upon the defendant, as required by applicable law; (iii) is not subject to appeal;

(iv) does not conflict with a final and unappealable decision rendered by a Brazilian judicial authority; (v) has been certified by a Brazilian consulate in the country where it was rendered or is duly apostilled in accordance with the Convention Abolishing the Requirement of Legalization for Foreign Public Documents and accompanied by a sworn translation into Portuguese, unless such procedure has been exempted by an international treaty signed by Brazil; (vi) does not cover matters of exclusive competence of the Brazilian Courts; and (vii) is not contrary to Brazilian national sovereignty, public policies or good manners. Therefore, investors might not obtain a favorable judgment in legal proceedings against the Company or its directors and officers in court judgments in their home jurisdiction, based on the laws of such jurisdiction.

(c) Risks related to the Controller or Controlling Group of the Company and Risks related to Company's shareholders.

The Company does not have a controlling shareholder or control group, which may hinder certain decision-making processes

Since November 9, 2020, the Company does not have a controlling shareholder or a group of shareholders who jointly hold rights that permanently assure it the majority of votes in the resolutions of the general meeting of shareholders and the power to elect the majority of the members at the Company's Board of Directors. The absence of a control or a control group may hinder certain decision-making processes, as the minimum quorum required by law for certain resolutions at the General Meeting of Shareholders may not be reached, which may adversely affect the Company's business and operating results.

The Brazilian Federal Government has certain veto rights.

The Brazilian Federal Government holds 12 golden shares at Vale, which grants them limited veto power over certain matters involving the Company, such as changes to the corporate name, to the location of its headquarters and to its corporate purpose, regarding mining activities. For a detailed description of the veto power of golden shares, see item 18.1 of this Reference Form.

(d) Risks related to the Company's subsidiaries

For information on the risks related to the Company's investees, see the Risk Factor described in item (b) above: *"Company's business may be adversely affected by the performance of its counterparties, contractors, joint venture partners or non-controlling joint ventures"*.

(e) Risks related to the Company's suppliers

For information on risks related to the Company's suppliers, see the Risk Factors described in item (b) above: *"Higher energy costs or energy shortages can adversely affect the Company's business"* and *"Company's business may be adversely affected by the performance of its counterparties, joint venture partners or non-controlling joint ventures"*.

(f) Risks related to the Company's customers

For information on the risks related to the Company's customers, see the Risk Factor described in item (b) above: *"Company's business may be adversely affected by the performance of its counterparties, contractors, joint venture partners or non-controlling joint ventures"*.

(g) Risks related to the Economic Sectors in which the Company operates

Adverse economic developments in China may have a negative impact on Vale's revenue, cash flow and profitability.

China has been the main driver of global demand for minerals and metals over the last few years. In 2020, China's demand accounted for 80% of global oceanic demand for iron ore, 60% of global demand for nickel and 54% of global demand for copper. The percentage of Company's net operating revenue attributable to sales to customers in China was 58% in 2020. Therefore, any contraction of China's economic growth could result in lower demand for our products, leading to lower revenues, cash flow and profitability. Poor performance in the Chinese real estate sector, the largest consumer of carbon steel in China, would also have a negative impact on the Company's results. These risks may be intensified in 2021 due to the impact of the COVID-19 pandemic.

The Company's businesses are exposed to the cyclical nature of global economic activity and require significant capital investments.

As a mining company, Vale is a supplier of industrial raw materials. Industrial production is cyclical and volatile, which affects the demand for minerals and metals. At the same time, investment in mining requires a substantial amount of financial resources in order to replenish reserves, expand and maintain production capacity, build infrastructure, preserve the environment, prevent fatalities and occupational risks and minimize negative social impacts. Susceptibility to industrial production, along with the need of significant long-term capital investments, are important risk sources to Vale's financial performance and growth prospects.

It is possible that the Company will not be able to adjust production volume in a timely or cost-effective manner in response to changes in demand. Lower utilization of capacity during periods of weak demand may expose the Company to higher production costs per unit, since a significant portion of its cost structure is fixed in the short term, due to the capital intensity of mining operations. Besides, efforts to reduce costs in periods of weak demand could be limited by labor regulations or collective-bargaining agreements or by previous agreements with the government. Conversely, during periods of high demand, Vale's ability to rapidly increase production is limited, which could prevent it from meeting demand for its products. Moreover, it is possible that the Company will not be able to complete expansions and new greenfield projects in time to take advantage of the rising demand for iron ore, nickel or other products. When demand exceeds its production capacity, the Company may meet excess demand from customers by purchasing iron ore fines, iron ore pellets or nickel from third parties who process and resell them, which increases its costs and narrows its operating margins. If Vale is unable to meet the excess demand of its customers in this way, it may lose customers. In addition, operating close to full capacity may expose the Company to higher costs, including demurrage fees due to capacity restraints in its logistics systems.

(h) Risks Related to the Regulation of Sectors in which the Company operates

The political, economic and social conditions of the countries in which the Company maintains operations or projects, especially in Brazil, can adversely impact its business.

Vale may have its financial performance negatively affected by regulatory, political, economic and social conditions in the countries where it has significant operations or projects. In many of these jurisdictions, Vale is exposed to several risks, such as political instability, bribery, cyber attacks, extortion, corruption, robbery, sabotage, kidnapping, civil war, acts of war, guerrilla activities, piracy on international transport routes, and terrorism. Such problems may adversely affect the economic conditions and other conditions under which the Company operates in several manners, significantly hindering its business.

In Brazil, where a significant part of operations are concentrated, the economic policies of the Federal Government can have important effects on Brazilian companies, including Vale, and on

market conditions and security prices of Brazilian companies. The financial condition and operating results of the Company may be adversely affected, for example, by the following factors and by the Brazilian Federal Government's response to these factors:

- exchange rate movements and volatility;
- inflation and high interest rates;
- financing of the current account deficit;
- liquidity of the domestic capital and loan markets;
- tax policy;
- pension, tax and other reforms;
- political instability resulting from allegations of corruption involving political parties, elected officials or other public officials; and
- other political, diplomatic, social and economic events in or that affect Brazil.

Historically, the country's political situation has influenced the performance of the Brazilian economy, and political crises have affected the confidence of investors and the general public, resulting in economic deceleration, reduction in credit ratings of the Brazilian government and Brazilian issuers, and heightened volatility in the securities issued abroad by Brazilian companies. Political instability can aggravate economic uncertainties in Brazil and increase the volatility of securities of Brazilian issuers. Future economic, social and political developments in Brazil may impair the Company's business, financial condition or results of operations, or cause the market value of its securities to decrease.

Disagreements with local communities may cause an adverse impact on Company's business and reputation.

Legal disputes with communities located where the Company operates may arise. Accidents or incidents involving mines, industrial facilities and related infrastructure, such as the rupture of the tailings dam in Brumadinho, can significantly impact the communities where the Company operates. In some cases, Company's operations and mineral reserves are located on indigenous lands or on nearby lands owned or used by indigenous people or other groups of stakeholders. Some of the Company's mining and other operations are located on territories whose property may be subject to disputes or uncertainties, or in areas intended for agriculture or land reform purposes, which may lead to disagreements with landowners, organized social movements, local communities and the government. In some jurisdictions, the Company may be required to consult and negotiate with these groups as part of the process of obtaining the required licenses to operate, in order to minimize the impact on its operations or to gain access to lands. Disagreements or disputes with local communities and groups, including indigenous groups, organized social movements and local communities, can cause delays in obtaining licenses, increases in the planned budget, delays or interruptions in operations. These issues may have a negative effect on Company's reputation or even hinder its ability to work in the reserves and carry out its operations. For more information, see items 4.3 to 4.7 of this Reference Form.

The Company may be adversely affected by changes in public policies or by trends such as resource nationalization, including the imposition of new taxes or royalties on mining activities.

Mining is subject to government regulation, including taxes and royalties, which can have a significant financial impact on Company's operations. In countries where it is present, the Company is exposed to potential renegotiation, annulment or forced amendment of existing contracts and licenses, expropriation or nationalization of property, exchange controls, capital ownership requirements, changes in local laws, regulations and policies and audits and revaluations. The Company is also exposed to new taxes or increase in existing tax and royalties rates, reduction of exemptions and tax benefits, renegotiation of tax stabilization agreements or changes in the calculation base that are unfavorable to the Company. Governments that have pledged to provide a stable taxation or regulatory environment may alter or shorten the duration of such commitments. The Company also faces the risk of having to submit to the jurisdiction of a foreign or arbitration court, or having to enforce a judgment against a sovereign nation within their own territory. For more information, see item 7.5 of this Reference Form.

The Company is also required to meet internal beneficiation requirements in certain countries where it operates, such as local processing standards, export duties or restrictions, or charges on raw ores. The imposition or enlargement of such requirements, taxes or charges can significantly increase the risk profile and the operating costs in those jurisdictions. The Company and the mining sector are subject to rising trends of resource nationalization in certain countries where it operates, which may result in restrictions on its operations, increased taxation or even expropriations and nationalizations.

As a supplier of iron ore, nickel and other raw materials to the integrated global steel industry and other metal consuming sectors, such as battery production and other specific industrial end uses, the Company is subject to additional risks arising from the imposition of rights, customs duties, export and import control tariffs and other trade barriers, which affect the Company's products and the products that Company's customers produce. World trade is subject to a growing trend of increased trade barriers, which could exacerbate commodity price volatility and, thus, result in price instability of Company's products.

Changes in Brazilian tax policies and tax laws may have an adverse effect on the Company's financial condition, results and investments in securities

The Brazilian government has frequently implemented and can continue to implement changes in its tax policies, including, but not limited to, rates, fees, sector charges and, occasionally, the collection of temporary contributions. Changes in tax laws and the interpretation of tax laws by the Brazilian tax authorities may occur and may result in tax increases and revocation of tax exemptions. Currently, Brazilian legislators are considering a comprehensive tax reform, which may include the elimination or unification of certain taxes, creating new ones, repealing income tax exemptions on the distribution of profits and dividends, and changes related to interest on equity. The approval of these legislative proposals or changes in tax policies, tax laws and interpretations may impact on tax obligations and may have an adverse material effect on the financial condition and results, and on investments in Company securities.

The Company's concessions, authorizations, licenses and permits are subject to expiration, limitations on renewal and various other risks and uncertainties.

Vale's operations depend on authorizations and concessions from governmental regulatory agencies in the countries in which it operates. The Company is subject, in many jurisdictions, to laws and regulations that can change at any time, and such changes in laws and regulations may require modifications to Vale's technologies and operations, resulting in unexpected capital expenditures.

Some of Vale's mining concessions are subject to fixed expiration dates and might only be renewed a limited number of times, for a limited period. Apart from mining concessions, it is possible that the Company has to obtain several authorizations, licenses and permits from public bodies and regulatory agencies in relation with the planning, maintenance, operation and closure of its mines, and related logistics infrastructure, which may be subject to fixed expiration dates or periodic revision or renewal. There is no assurance that such renewals will be granted when requested, and there is no guarantee that new conditions will not be imposed for the renewal. Fees for mining concessions might substantially increase over time, from the original issuance of each individual exploration license. Should this happen, the costs of obtaining or renewing the mining concessions may render the Company's commercial purposes unfeasible. Accordingly, the Company needs to continually assess the mineral potential of each mining concession, especially at the time of renewal, in order to determine whether the costs of maintaining the concessions are justified by the results of operations so far, and, thus, it may choose to let some of its concessions expire. There may be no guarantee that concessions will be obtained on terms favorable to the Company, or, in general, no guarantee for its intended exploration or mining goals.

In a number of jurisdictions where the Company has research projects, it is possible that it may be required to return to the State a certain portion of the area covered by the exploration permit as a condition to renew the license or to obtain a mining concession. Such obligation can lead to a substantial loss of part of the mineral deposit originally identified in the Company's feasibility studies. For more information on mining concessions and other similar rights, see "Mining Rights and Regulation of Mining Activities" in item 7.5 of this Reference Form.

For information on the risks related to environmental regulations, see the Risk Factors described in item (j) below: "*The Company's business may be adversely affected by environmental and health and safety regulations, including regulations pertaining to climate change*".

(i) Risks related to the Company's ADS (American Depositary Shares)

If ADR holders exchange the ADSs for underlying shares, they risk losing the ability to remit foreign currency abroad.

The custodian of shares underlying the Company's ADSs maintains a registration with the Central Bank of Brazil, allowing the custodian to remit US Dollars outside of Brazil for dividend payments and other distributions related to the shares underlying, to the ADSs or by disposing of the underlying shares. If the ADR holder exchanges its ADSs for the underlying shares, they shall be entitled to rely on the custodian's registration for only five business days from the date of exchange. Thereafter, an ADR holder may not be able to get and remit foreign currency abroad upon the disposition of, or distribution relating to, the underlying shares, unless it obtains its own registration in accordance with the applicable regulation. Refer to item 18.8 for a better description of Vale's ADSs. If the ADR holder attempts to obtain its registration, they may incur expenses or suffer delays in the application process, which could delay the receipt of dividends and other distributions relating to the underlying shares or the return of capital in a timely manner.

The custodian's registration or any registration obtained may be affected by future legislative changes, and additional restrictions applicable to ADRs' holders, the sale of the underlying shares or the repatriation of the proceeds from the sale and taxation of dividends could be imposed in the future.

ADR holders may not have all the rights of Vale's shareholders and may not be able to exercise voting or preemptive rights related to the shares underlying their ADSs.

ADRs holders may not have the same rights that are assigned to the Company's shareholders under Brazilian law or under its bylaws, and the rights of ADR holders may be subject to certain limitations provided for in the deposit agreement or by the intermediaries through which the ADR holders hold their securities.

ADR holders do not have the rights of shareholders. They have only the contractual rights set forth for their benefit under the deposit agreements. ADR holders are not allowed to attend shareholders' meetings and may only vote by giving instructions to the depositary. In practice, the ability of an ADR holder to instruct the depositary on how to vote will depend on the timing and procedures for giving instructions to the depositary, either directly or through the holder's clearing and custody system. With respect to ADSs for which no instructions are received, the depositary may, being subject to certain limitations, grant a power of attorney to someone designated by the Company.

The ability of ADR holders to exercise their preemptive rights is not assured, particularly if the applicable law in the holder's jurisdiction (for example, the Securities Act in the United States) requires that either a registration statement be effective or an exemption from registration be available in relation to those rights, as is in the case of the United States. The Company is not obligated to extend the offer of preemptive rights to ADR holders, to file a registration statement in the United States, or to make any other registration in any other jurisdiction, relating to preemptive rights, or to undertake steps that may be needed to provide exemptions from

registration, and cannot assure holders that it will make any registration statement or take such measures.

Legal protections for holders of the Company's securities differ from one jurisdiction to another and may be inconsistent, unfamiliar or less effective in relation to investors' expectations.

Vale is a global company with securities traded in several markets and with investors located in numerous countries. The legal regime for investors protection varies all over the world, sometimes in a substantial manner, and investors in the Company's securities should recognize that the protections and safeguards available to them may be different from those they are used to in their home markets. The Company is subject to securities legislation in several countries, which have different standards, supervision and enforcement practices. The only Business Corporation Law applicable to Company's headquarters is Brazilian law, with its specific and substantive legal rules and procedures. The Company is subject to corporate governance standards in several jurisdictions where its securities are listed, however, as a foreign private issuer, the Company is not required to follow many of the corporate governance standards that apply to U.S. domestic issuers with securities listed on the New York Stock Exchange, and it is not subject to the U.S. proxy rules.

(j) Risks related to socio-environmental issues

The Company's businesses are subject to environmental, health and safety incidents.

The Company's operations involve the use, handling, storage, discharge and disposal of hazardous substances in the environment and the use of natural resources, resulting in significant risks and hazards, including fire, explosion, leakage of toxic gases, spillage of polluting substances or other hazardous materials, rockslides, accidents involving dams, failure of other operational structures, as well as activities involving equipment, vehicles or mobile machinery and other potentially fatal incidents and accidents. Incidents may occur due to deficiencies in the identification and assessment of risks or in the implementation of robust risk management and, once these risks materialize, they can result in significant environmental and social impacts, damage to or destruction of mines or production facilities, injuries, illness and fatalities, involving employees, service providers or members of the community surrounding the operations, as well as production delays, financial losses and possible civil liability. In addition, employees may be exposed to tropical and contagious diseases capable of affecting their health and safety. Notwithstanding the Company's standards, policies, controls and procedures, its operations remain subject to incidents or accidents, which may adversely affect its business, its stakeholders or its reputation.

The Company's business may be adversely affected by environmental and health and safety regulations, including regulations pertaining to climate change.

Nearly all aspects of activities, products and services associated with the Company's capital projects and operations around the world are subject to social, environmental, health and safety regulations, which may expose it to increased liability or costs. Such regulations require Vale to have environmental licenses, permits and authorizations for its operations and projects, and to carry out environmental and social impact assessments in order to obtain approval for its projects and permission for initiating construction and continue operating. Significant changes to existing operations are also subject to these requirements. Difficulties in obtaining or renewing licenses can lead to construction delays, cost increases, and may adversely impact the Company's production volumes. Socio-environmental and health and safety standards also impose standards, procedures, monitoring and operational controls on activities related to mineral research, mining, processing, pelletizing activities, rail and marine services, ports, decharacterization, decommissioning, distribution and commercialization of their products. Such regulation may give

rise to significant costs and liabilities. Litigation related to these or other related matters may adversely affect the Company's financial condition or harm its reputation.

Social, environmental and health and safety regulations in many countries in which Vale operates have become stricter in recent years, and it is possible that more regulations or a stricter application of existing regulations may adversely affect it by imposing restrictions on its activities, products and assets, creating new requirements for the issuance or renewal of environmental licenses and work permits, resulting in licensing and operating delays, increasing their costs or requiring the engagement in costly recovery efforts. All these factors may affect Company's practices and result in increased costs or expenses, demand new capital expenditures, restrict or suspend operations, lower or write off the assets or reserves.

For a discussion of stricter rules related to the licensing and operation of dams after the rupture of the tailings dam in Brumadinho, see item 7.5 of this Reference Form. For additional information on national policies and international regulations related to climate change, which may affect a number of Company's businesses in several countries, see item 7.5 of this Reference Form. For additional information on 2020 regulatory initiatives of the International Maritime Organization (IMO) Standard, which prohibits high sulfur fuel oil, as well as IMO's targets on greenhouse gas reductions in industry, see item 7.5 of this Reference Form.

Natural disasters may cause severe damage to Company's operations and projects in the countries where it operates and may have a negative impact on its sales to countries affected by such disasters.

Natural disasters, such as windstorms, droughts, floods, earthquakes and tsunamis, may have a negative effect on Vale's operations and projects in the countries where it operates, and may cause a contraction in sales to countries affected by, among other factors, power outages and destruction of industrial facilities and infrastructure. The physical impact of climate change on business remains uncertain, but it is likely that Vale may experience changes in precipitation standards, increased temperatures, floods, droughts, water scarcity, rising sea levels, increased incidence and intensity of discharges atmospheric conditions (lightning strikes) as a result of climate change, which may adversely affect its operations. On some occasions, in recent years, the Company has determined that force majeure events have occurred due to the effect of bad weather on its mining and logistics activities.

4.2 - Description of the main market risks

Significant Market Risks Applicable to the Company

Considering the nature of the Company's business and operations, the main market risk factors that it is exposed to are:

- price of products and inputs;
- foreign exchange rates and interest rates.

Price risk of products and inputs

The Company is exposed to market risks related to volatility in the prices of its production inputs and products, as follows:

Global prices for the Company's products are subject to volatility, which may affect negatively its own business.

Global prices for metals are subject to significant fluctuations and are affected by many factors, including current and expected global macroeconomic and political conditions, regional and sectorial factors, levels of supply and demand, the availability and cost of substitutes, inventory levels, technological developments, regulatory issues and foreign trade issues, investments by commodity funds, and actions of participants in the commodity markets. Persistent low market prices for products sold by the Company may result in the suspension of some of its projects and operations, the reduction of its mineral reserves and the loss of value of its assets, which may adversely affect its cash flows, financial situation and results of its operations. The persistence of high prices for the products sold can result in new competitors entering, which can have deleterious long-term effects on prices. The Company expects the price of its products to be subject to additional volatility in the year 2021 due to the impact of the COVID-19 pandemic and relief measures.

Demand for iron ore, coal and nickel products depends on global demand for steel. Iron ore and iron ore pellets, which together accounted for 79% of the Company's 2020 net operating revenue, are used to produce carbon steel. Nickel, which accounted for 8% of the Company's 2020 net operating revenue, is used mainly to produce stainless steel and alloys. The prices of different types of steel and the performance of the global steel industry are highly cyclical and volatile, and these economic cycles in the steel industry affect demand and prices for the Company's products. In addition, vertical backward integration of the steel and stainless steel industries and the use of scrap could reduce the global seaborne trade of iron ore and primary nickel. The demand for copper is affected by the demand for copper wire, and a sustained decline in the construction industry demand could have a negative impact on the Vale's copper business.

The Company is mainly affected by changes in iron ore prices. For example, a price reduction of US\$ 1 per dry metric ton unit ("dmt") in the average iron ore price would have reduced the Company's operating revenue for the year ended December 31, 2020 by approximately US\$ 265 million. Average iron ore prices have changed significantly in the past five years, from USD 58.5 per dmt in 2016, USD 71.3 per dmt in 2017, USD 69.5 per dmt in 2018, USD 93.4 per dmt in 2019 and USD 108.9 per dmt in 2020, according to the Platts IODEX average (62% Fe CFR China). On January 5, 2021, the year-to-date average Platts IODEX iron ore price was US\$ 164.5 per dmt.

For information on the risks related to inputs, see the Risk Factor described in item 4.1(b) above: "*Higher energy costs or energy shortages would adversely affect the Company's business*".

Foreign Exchange Risks

The Company's cash flow is subject to the volatility of several currencies, since the prices of its products are predominantly indexed to US Dollar, while a significant part of the costs, expenses and investments are indexed to other currencies, mainly Reais and Canadian Dollars, as highlighted in the risk below.

The Company also has debt instruments and other liabilities denominated in currencies other than US Dollar, mainly in Brazilian Reais.

Changes in the exchange rates of the currencies in which the Company conducts its operations may adversely affect its financial condition and results of operations.

A substantial portion of the Company's revenues, trade receivables and debt is denominated in U.S. Dollars, and considering that its functional currency is Brazilian Reais, changes in exchange rates may result in (i) losses or gains on its net U.S. dollar-denominated indebtedness and accounts receivable, and (ii) market value losses or gains on exchange derivatives used to stabilize its cash flow in U.S. Dollars. In 2020, the Company had net foreign exchange losses of US\$ 523 million, while it had net foreign exchange gains of US\$ 39 million in 2019. In addition, changes in the values of the Brazilian real, the Canadian dollar, the euro, the Indonesian rupiah, the Chinese yuan and other currencies against the U.S. Dollar affects the Company's results, since most of its costs of goods sold are denominated in currencies other than the U.S. dollar, mainly the Brazilian Real (39.5% in 2020) and the Canadian dollar (6.2% in 2020), while its revenues are mostly U.S. dollar-denominated. Exchange rate fluctuations are expected to continue to affect the Company's financial result, expenses and cash flow generation.

Significant volatility in currency prices may also result in disturbances in foreign exchange markets, which could limit the Company's ability to transfer or to convert certain currencies into U.S. Dollars and other currencies for the purpose of making timely payments of interest and principal on its indebtedness. The central banks and governments of the countries in which Vale operates may institute restrictive exchange rate policies in the future and impose taxes on foreign exchange transactions.

Interest Rate Risk

The Company is also exposed to interest rates on loans and financings. Debts with fluctuating interest rates in U.S. Dollars consist mainly of loans, including export prepayment operations and loans from commercial banks and multilateral organizations. In general, these debts are indexed to the LIBOR (London Interbank Offered Rate).

Uncertainties regarding the discontinuation and replacement of LIBOR may adversely affect the Company.

In July 2017, the UK Financial Conduct Authority ("FCA"), the body that regulates the London Interbank Offered Rate ("LIBOR"), announced the effective discontinuation of LIBOR. After December 31, 2021, the FCA will no longer require panel banks to submit quotes for LIBOR settings other than overnight and 12-month U.S. dollar LIBOR and, after June 30, 2023, the FCA will no longer require panel banks to submit quotes for any U.S. dollar LIBOR settings. The Company is currently evaluating the potential impact of the possible replacement of LIBOR's interest. As of the date of this document, it is not possible to predict the effect of discontinuing LIBOR or replacing it with alternative reference rates or any other LIBOR reforms that may be enacted in the United Kingdom or elsewhere. The uncertainty related to the discontinuation, as to the nature of the alternative reference rates and as to possible changes or other reforms in LIBOR, may have a material adverse effect on the Company's financial condition and results of operations.

The Company is exposed, through its debt contracts, to the rates encompassed in the new term. Currently, around 25% of Vale's debt is tied to LIBOR. Floating debts denominated in Reais are indexed mainly to the Interbank Deposit Certificate (CDI), Long-Term Interest Rate (TJLP) and

the National Consumer Price Index (IPCA), and part of these debts are converted to fixed interest rates in U.S. Dollars through swap operations.

On December 31, 2020, 81.34% of the Company's indebtedness was denominated in U.S. Dollars (US\$), corresponding to R\$ 56,470,464,004.39, of which R\$ 40,056,776,799.22 at fixed interest, R\$ 16,123,039,320.09 at variable interest and R\$ 290,647,885.08 tied to LIBOR. Other 10.59% of the debt was denominated in Reais (R\$), corresponding to R\$ 7,349,093,806.97, of which R\$ 4,510,621,066.65 tied to DI Rate and TJLP, and R\$ 2,838,472,740.32 at fixed interest rates and others. The remaining 8.08% of debt, corresponding to R\$ 5,607,748,334 at fixed interest rates, was denominated predominantly in Euros (€).

4.3 - Relevant non-secret legal, administrative or arbitration proceedings

Vale is a party involved in labor, civil, tax and other actions in the administrative and judicial spheres. The provisions for the losses arising out of these actions are estimated and updated by the Company, based on the opinion of legal advisors.

For the purposes of this item 4.3, the proceedings, among others, that may have a significant impact on the Company's equity or business, quantitatively representing the amount in dispute greater than the equivalent to 1% of the Company's Shareholders' Equity, as of December 31, 2020, have been considered as individually relevant proceedings. In addition, without prejudice to the materiality criterion highlighted above, relevant proceedings have also been included due to other aspects, regardless of the amount involved.

As of December 31, 2020, the provision for contingencies arising out of administrative and judicial proceedings of a tax, civil, labor and environmental nature, recognized in the Company's consolidated financial statements, totaled R\$ 5.671 billions, and its composition can be summarized as follows:

Provisions for legal proceedings (R\$ million)	December 31, 2020
Tax	2,520
Civil	1,354
Labor	1,741
Environmental	56
Total	5,671

(i) Labor

As of December 31, 2020, the Company and its controlled companies were parties to 15,208 legal proceedings of labor nature, involving the total amount of R\$ 33.470 billions. On that same date, the Company's consolidated financial statements were provisioned with R\$ 1.741 billion to cover possible losses. The labor lawsuits brought against the Company relate to matters such as overtime, premium for unhealthy and hazardous work, outsourcing, among others.

The tables below present an individual description of labor proceedings considered relevant to the Company's and/or its subsidiaries' businesses as of December 31, 2020:

1) Case no. 0126600-17.2006.5.03.0012	
Court	6 th Panel of the Superior Labor Court (TST)
Instance	Superior
Filed on	Nov 27, 2006
Parties	Labor Prosecution Office of Minas Gerais ("MPT-MG") (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 19,373,213.29
Main facts	<p>MPT-MG filed, on November 27, 2006, a public-interest civil action aimed at preventing the outsourcing of services of (i) operation of machinery and equipment for mining, such as loader, excavator and drill; (ii) monitoring and reading of instruments in tailings dams and sterile piles; and (iii) preparation and performance of a fire plan (detonation).</p> <p>On August 20, 2009, a judgment was rendered (partially granted) ordering Vale to refrain from outsourcing the aforementioned services and, therefore, to conduct such activities through its own employees. The court understood that such services would be the Company's core activities and thus could not be outsourced.</p> <p>On February 22, 2010, the Regional Labor Court of the 3rd Region ("TRT3") dismissed the appeal filed by Vale and partially granted the MPT-MG appeal,</p>

	<p>in order to grant the interlocutory relief for immediate enforcement of the judgment.</p> <p>On May 18, 2010, Vale filed an appeal to the Superior Labor Court ("TST"), sustaining the violation of art. 129, III, of the Federal Constitution and art. 83 of Complementary Law No. 75/93, as well as jurisprudential divergence regarding the lack of collective interest to authorize the filing of the public-interest civil action by the MPT-MG, which would imply its illegitimacy to propose the action, and, consequently, the extinction of the proceedings without judgment on the merits (art. 267, I and VI and art. 295, V, of the Code of Civil Procedure). Vale also claimed breach of article 5, paragraphs XXII, LIV and LV, of the Federal Constitution, and article 899 of the Consolidation of Labor Laws (CLT), due to the unreasonable judicial mortgage determined by TRT3 without there being an execution procedure. Finally, Vale claimed breach of items II and XIII of article 5, and sole paragraph of article 170, both of the Federal Constitution, for disrespect to the right to free exercise of the job or legal profession, since the legal qualifications are met, considering that the activities performed by the service providers are specialized and can be legitimately contracted.</p> <p>On May 21, 2010, in the action for a provisional remedy filed by Vale, TST granted an injunction request to suspend the interlocutory relief that determined the immediate enforcement of the judgment.</p> <p>On July 19, 2010, Vale filed an interlocutory appeal with TST due to the denial of the Review Appeal by TRT3.</p> <p>On March 18, 2015, the Interlocutory Appeal filed by Vale was granted, determining the consideration of Vale's Review Appeal.</p> <p>On April 8, 2015, the Review Appeal was found partially favorable to Vale by annulling the decision of the Motion for Clarification issued by TRT3.</p> <p>Despite the above decision, MPT-MG understands there is a fine for alleged noncompliance with the decision, and, as a precaution, Vale calculated the amounts sought by the Prosecution Office (approximately R\$ 7.6 million), which would be added to the original requests of the case and classified with chance of remote loss. Due to the aforementioned questioning by MPT-MG, the amount involved in the case was reassessed in order to consider the new MPT-MG's allegations regarding noncompliance with the court decision. Accordingly, the amount of the claim was revalued from R\$ 856,000 on December 31, 2014 to R\$ 12.8 million on December 31, 2015, although Vale does not agree with the determination of noncompliance and the application of the fine.</p> <p>The documents returned to TRT3, for a new judgment of the Motion for Clarification. Once the Motion for Clarification was issued, a new Review Appeal was filed and, in view of its denial, an Interlocutory Appeal was filed, which is pending before the TST and was assigned to the 6th Panel.</p> <p>In March 2018, Vale filed a petition before the TST requesting that the Court recognize that the action became moot, as Laws 13,429/17 and 13,467/17 authorize the outsourcing of the core activity. Subsequently, in the event of non-acceptance of this request, the Rapporteur of the appeal was requested to limit the adverse judgment until November 2017, when the mentioned law came into force.</p> <p>In September 2018, the lawsuit was dismissed because it depends on the STF's judgment on the "outsourcing" matter. A situation that remains up to this date.</p>
Chances of loss	1.90% of the total updated order was classified as Likely Loss, the remaining amount being classified as Remote Loss.
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In case the court upholds the unfavorable decision, Vale will be obliged, in the region of Minas Gerais, to refrain from outsourcing the aforementioned services, and conduct such activities, therefore, through its own employees; and to cause the termination of outsourcing agreements that have such services as purpose. However, with the adoption of labor reform and consequent legal permission to outsource core activities, there is the possibility of the recognition of mootness of the action or, also, limitation of the adverse judgment until adoption of the new legislation.
Notes	Not applicable.

2) Notices of Violation 20.588.905-1 and 20.589.903-0	
Administrative Level	Ministry of Labor and Employment ("MTE")
Instance	2 nd Administrative Instance
Filed on	Feb 12, 2015
Parties	MTE and Vale
Amounts, goods or rights involved	R\$ 602,665.51 (of which R\$ 601,976.74 related to record 20.588.905-1 and R\$ 688.77 related to record 20.589.903-0)
Main facts	<p>In February 2015, the Ministry of Labor and Employment (MTE) supervised the activities of the company Ouro Verde Locação e Serviços S.A. ("<u>Ouro Verde</u>"), which provided services to Vale for the transportation of finished products between Pico Mine (Itabirito-MG) and the railway terminals in Fábrica Mine (Congonhas-MG).</p> <p>The referred to inspection resulted in notices of violation issued by the MTE, related to alleged (i) inadequate hygiene conditions; (ii) violation of safety standards; (iii) excessive working hours; (iv) outsourcing of finished products considered as end activity not subject to outsourcing; and (v) due to all of the aforementioned violations, the MTE filed a notice of violation for practices similar to slave labor.</p> <p>Although all the practices subject to the notices of violation refer to Ouro Verde, as the outsourcing was considered illegal, all the notices were issued against Vale.</p> <p>Vale filed administrative defense before the MTE claiming: (i) that the transportation of products is outsourced; (ii) that there is no direct employment relationship between Vale and the employees of Ouro Verde; (iii) that there was a misunderstanding of the classification of alleged irregularities as "practice similar to slave labor". The administrative defenses were not granted and Vale appealed to the second administrative instance. In April 2016, decisions were issued denying Vale's appeals.</p> <p>Once the administrative level had been exhausted, Vale filed an Action for Provisional Remedy (case no. 0010627-83.2016.5.03.0005), in which it obtained an injunction in favor of Vale to suspend the enforceability of the fine. The main action, an Action for Annulment of Notices of Violation, was assigned to the same judge presiding over a connected lawsuit on May 27, 2016.</p> <p>As a result of the notices of violation issued by the MTE, the Prosecution Office ("MPT") commenced Public Civil Inquiry No. 3212.2014.03.000/9-12 to investigate the alleged practice similar to slave labor in the services provided by Ouro Verde, upon Vale having signed with MPT Consent Decree no. 118/2015 ("<u>TAC</u>"), by means of which preventive and corrective measures were agreed to guarantee the labor rights of the employees of the companies that provide services. The commitments undertaken have been properly implemented. For information on said TAC, see item 4.7 of this Reference Form. Due to the fulfillment of the agreed commitments, the Civil Inquiry is provisionally closed.</p> <p>By adopting a broad interpretation of the law, the Ministry of Labor concluded that the employees had been working under conditions similar to slavery. Upon becoming aware of the findings, the Company promptly remedied the issues and, subsequently, terminated the contract with the transportation company.</p> <p>However, the Ministry of Labor filed an administrative proceeding against the Company. Vale presented its defense, which was rejected, the subsistence of the records being maintained. Against that decision, an administrative appeal was filed, which was not accepted, and the administrative proceeding was terminated.</p> <p>In June 2016, Vale commenced a legal proceeding requesting the annulment of administrative notices of violation and that the Ministry of Labor refrain from classifying it as a company involved in practices similar to slavery. For information on such lawsuits, see items 4 and 5 below.</p> <p>On April 30, 2018, the judgments regarding the annulment actions mentioned in items 4 and 5 et seq. were rendered, through which revoked, among other things, interlocutory relief that prevented the registration of the fines as overdue tax liability.</p> <p>Against said judgments, the competent appeals were filed. After assessing the appeals filed by Vale S.A., the notice of violation No. 20.588.905-1 was annulled by the TRT of the 3rd region and the outsourcing of the activities provided by the company Ouro Verde Locações e Serviços S.A. was deemed lawful.</p> <p>With regard to the lawsuit discussing the notice of violation No. 20.589.903-0, Vale S.A.'s appeal was dismissed and the Company remains appealing against the decisions.</p>
Chances of loss	Remote for notice no. 20.588.905-1 and likely for notice of violation no. 20.589.903-0

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Low economic value, but relevant due to the impact to image.
Notes	Not applicable.

3) Case no. 0010784-59.2016.5.03.0004	
Court	5 th Labor Court of Belo Horizonte/MG
Instance	Trial Court
Filed on	May 27, 2016
Parties	Vale S.A. (Plaintiff) Federal Government (Defendant)
Amounts, goods or rights involved	R\$ 9,241.57
Main facts	<p>The subject matter of this suit is the annulment of notice of violation No. 20.588.905-1, drawn up against Vale by the Ministry of Labor, and based on the understanding of the supervisory authority, that the transportation of ore in the section of Pico/Fábrica road would not be subject to outsourcing, which is why the contracting between the Company and employees of Ouro Verde Locação e Serviços S.A. ("<u>Ouro Verde</u>") would have been illegal.</p> <p>On May 10, 2016, interlocutory relief was granted in favor of Vale by determining, through a Preliminary Injunction distributed on April 29, 2016, that the Ministry of Labor refrain from promoting the registration of the Notice of Violation in active debt, as well as executing it, "before the final decision on the annulment suit that will be filed by the plaintiff" (Vale).</p> <p>On May 2, 2018, a judgment was issued dismissing the annulment action and repealing the injunction previously granted. Motion for Clarification was filed by Vale on May 9, 2018, to remedy omissions and contradictions, among which the point pertinent to revocation of the relief.</p> <p>The Motion for Clarification filed has been accepted in part. Subsequently, Vale filed an Ordinary Appeal, and it was granted in December 2018 to render notice of violation No. 20.588.905-1 ineffective, considering the outsourcing to be lawful.</p> <p>At the date of this Reference Form, Vale awaits the judgment of the appeal filed by the Federal Government, forwarded to the TST.</p>
Chances of loss	Remote.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The maintenance of the understanding of illegality, in principle, would compel the Company to prioritize the transportation of ore, even in the case of a finished product, in the Pico/Fábrica area. The adverse judgment in said lawsuit may cause financial and reputational losses to the Company.
Notes	The subject matter of said lawsuit has correlation with lawsuit 5 below. Thus, see also the description and impacts of lawsuit 5 described below.

4) Case no. 0010787-11.2016.5.03.0005	
Court	5 th Labor Court of Belo Horizonte/MG
Instance	Trial Court
Filed on	May 27, 2016
Parties	Vale S.A. (Plaintiff) Federal Government (Defendant)
Amounts, goods or rights involved	R\$ 18,136.62
Main facts	<p>The subject matter of this action is the annulment of notice of violation no. 20.589.903-0 drawn up against Vale by the Ministry of Labor based on the understanding of the supervisory authority that employees of Ouro Verde Locação e Serviços S.A. ("<u>Ouro Verde</u>") worked under conditions similar to slavery, subject to exhaustive working hours and degrading working conditions. Due to the understanding upheld by the auditors of the Ministry of Labor regarding the unlawfulness of the outsourcing between the Company and Ouro Verde, the notice of violation related to work similar to slavery was issued against Vale.</p> <p>On May 10, 2016, interlocutory relief was granted, through a Provisional Remedy distributed on April 29, 2016, in favor of Vale, determining that the Ministry of Labor refrain from promoting the registration of the Notice of Violation in active debt, as well as before the final decision on the annulment suit filed by the plaintiff (Vale).</p>

	<p>On May 2, 2018, the judgment dismissing the annulment action was published. On May 9, 2018, Vale filed motion for clarification, and it was decided, on May 21, 2018, that the repeal of the interlocutory relief will only take effect after the decision has been res judicata, which has not yet occurred in view of the fact that the case is in the appeal phase.</p> <p>Vale filed an Ordinary Appeal on June 6, 2018. In February 2019, despite the fact that the employment relationship between Vale and the employees of Ouro Verde Locações e Serviços S.A. was dismissed, this fact was once again challenged, which had given rise to Vale's notification of the degrading conditions of work, the 4th Panel of the Regional Labor Court of MG, through a non-unanimous decision, maintained the notice of violation, denying the Ordinary Appeal.</p> <p>Vale filed a motion for clarification, which has been deemed groundless. An Appeal was filed against the decision that upheld the aforementioned notice of violation, which was not entertained. An Interlocutory Appeal was filed against the decision that refused to entertain the Appeal, which is pending judgment by the TST.</p> <p>At the date of this Reference Form, Vale awaits the judgment of the appeal filed by Vale S.A., forwarded to the TST.</p>
Chances of loss	Likely
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The possible loss of said proceeding and that described in item 4 above may cause significant financial and reputational losses to the Company, especially as it could cause Vale to be included in the list of slave employers maintained by the Ministry of Labor.
Notes	Not applicable.

5) Case no. 0001698-92.2014.5.03.0179	
Court	41 st Labor Court of Belo Horizonte/MG
Instance	Higher Instance
Filed on	May 29, 2014
Parties	Belo Horizonte Railroad Companies Workers Union (<i>Sindicato dos Trabalhadores em Empresas Ferroviárias de Belo Horizonte</i>) – STEFBH (Plaintiff) Vale S.A. (Defendant)
Amounts, goods or rights involved	Amount in dispute attributed by the Union was R\$ 40,000.00. The updated amount in dispute (as of December 31, 2020), to the knowledge of the Company, was R\$ 27,007,239.66.
Main facts	<p>By means of the aforementioned labor claim, the Union intended that the following requests be granted to those replaced:</p> <ul style="list-style-type: none"> (i) individual mental distress damages; (ii) collective mental distress damages; (iii) 01 extra daily hour with 50% overtime premium or higher conventional rate for not granting the full intra-day interval; (iv) payment of overtime premium for the whole period available as hours of commuting, standby and readiness; (v) union fees; (vi) mandatory injunction for abstaining from adopting a mono conduction system and to adopt a dual conduction system, to provide appropriate sanitary conditions, to adopt mono conduction with permission to use toilets during journeys or stops, to open stations in the travel sections so that they can be used for meal and satisfaction of physiological needs, all under penalty of fine to be determined by the court; (vii) interlocutory relief for fulfillment of the obligations to do; (viii) union fees. <p>On June 09, 2014, Vale presented its defense initially addressing the Union's lack of standing to sue, and exclusion of the non-associate substitutes. It argued that the action is barred by the statute of limitations and on the merits it fully challenged all the pleas.</p> <p>The evidentiary hearing was scheduled for November 26, 2014. At the evidentiary hearing, the testimony of Vale's representative and the testimony of the plaintiff's witness were gathered. The trial date was set for December 5, 2014.</p> <p>In the judgment, the court dismissed the case in relation to those substituted in case records 0001784-59.2012.5.03.0106 due to the <i>lis alibi pendens</i> of the</p>

requests, it rejected the preliminary arguments, declared the statute of limitations of the claims prior to December 09, 2008, and ordered Vale to pay the following portions:

- (i) interval between shifts and its reflexes;
- (ii) handover time and its reflexes;
- (iii) Union fees to the amount of 15% of the net value calculated in settlement of the case;

It arbitrated the award of R\$ 30,000.00 with costs by VALE in the amount of R\$ 600.00.

Vale filed an Ordinary Appeal asking for a review of the decision so that the lack of standing to sue with the union as plaintiff might be recognized and on the merits that the interval between shifts, handover time and union fees might be separated from the judgment.

The Union, as plaintiff, prepared an Ordinary Appeal asking for a revision of the judgment to determine that the defendant operate the locomotives with two drivers; ordering the defendant to pay individual and collective non-pecuniary damages; payment of the deferred portions with the inclusion of the portions yet to be paid.

In the TRT3, the relevance and public interest of the matters contained in the records was recognized and their submission to the Labor Prosecution Office, which manifested itself in favor of partial granting of the Ordinary Appeal filed by the Union, as plaintiff, to order the defendant to adopt the two-driver system and compensation for individual and collective non-pecuniary damages.

The appellate decision rejected the preliminary arguments and, on the merits, partially granted the Ordinary Appeal filed by Vale to separate the order to pay handover time and its reflexes.

However, the referred to appellate decision partially granted the Ordinary Appeal filed by the Union, as plaintiff, to add to the judgment:

- (i) on one side, to abstain from adopting a single-driver system and to adopt the two-driver system of the locomotives as from the final decision under a penalty of a daily fine of R\$ 2,000.00 for each adversely affected worker found in an irregular situation at each monthly observation of non-compliance;
- (ii) compensation for individual non-pecuniary damages to the amount of R\$ 10,000.00 for each one substituted;
- (iii) compensation for collective non-pecuniary damages to the amount of R\$ 500,000.00 reverted to the Workers' Support Fund (FAT – *Fundo de Amparo ao Trabalhador*);
- (iv) add the portions payable of the obligations of payment of interval overtime, while the situations that gave raise to them remain;
- (v) collection of FGTS, specifying that they should consider, as a basis for calculation, the interval overtime already increased by the granted reflexes;

It raised the value of the judgment from R\$ 30,000.00 to R\$ 550,000.00 with consequent procedural costs in the amount of R\$ 11,000.00.

The Union, as plaintiff, filed an Appeal for Review to change the appellate decision with regard to the rejection of the hours of readiness and standby.

Vale filed an Appeal for Review for a reversal of the judgment for recognition of the lack of standing to sue of the plaintiff Union, nullity of the appellate decision for lack of jurisdiction, to the extent that it has not analyzed the thesis addressed in the Ordinary Appeal, as well as the absence of exhaustive or analytical grounds of the appellate decision, a decision above and beyond the request; and on the merits a review with regard to the granting of interval overtime, an obligation to do or not do relating to the adoption of a two-driver system; compensation for individual and collective non-pecuniary damages and reduction of the compensatory amount and application of a fine for malicious prosecution.

The Regional Court of the 3rd Region received the Appeal for Review prepared by the Union, as plaintiff, and denied continuation of the Appeal for Review issued by VALE.

	The Interlocutory Appeal filed by Vale was rejected by the TST. The Company filed an extraordinary appeal to the Federal Supreme Court. Awaiting judgment of the appeal on the date of this Reference Form. Case held by the judge under advisement. Provisionary Execution suspended.
Chances of loss	Likely (80%) and Remote (20%)
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	<p>The relevance of the case comes about because, if the decision of the Regional Court is upheld, Vale, in the territorial area of the STEFBH, will have to implement the two-driver scheme, that is, the drivers must be accompanied by another employee when traveling.</p> <p>The loss of the referred to case could cause significant financial losses to the Company.</p>
Notes	Not applicable.

6) Case no. 0010261-67.2019.5.03.0028	
Court	5 th Labor Court of Betim/MG
Instance	Trial Court
Filed on	March 25, 2019
Parties	Labor Prosecution Office ("MPT")/Sindicato dos Empregados em Empresas de Asseio/ Sindicato dos Empregados em Empresas de Refeições Coletivas/Public Defender's Office of the Federal Government/SINDIASSEIO/Sindicato dos Trabalhadores na Indústria da Extração de Ferro e Metais Básicos de Brumadinho e Região/ Sindicato dos Trabalhadores nas Empresas de Produção, Organização e Projetos de Eventos do Estado de Minas Gerais/ SITICOP MG/ FETICOM MG/ SINTRAL MG/ Sindados (Plaintiffs) and Vale S.A. (Defendant)
Amounts, goods or rights involved	R\$ 3,600,000,000.00 (amount in dispute)
Main facts	<p>The subject matter of this suit is to provide for the protection of the employment contracts of those who worked in the Feijão mine at the time of the Brumadinho dam rupture, in addition to the pension of dependents of deceased/disappeared employees, payment of collective moral damages and compensation for social dumping. The initial hearing was scheduled for May 17, 2019 and later re-scheduled for June 03, 2019.</p> <p>The amount of R\$ 1,600,000,000.00 was blocked in Vale's accounts, due to a judicial order issued in the Interlocutory Relief, case no. 0010080-15.2019.5.03.0142, which preceded the filing of this Public Civil Action.</p> <p>On July 15, 2019, an agreement was signed between Vale the MPT, with the participation of unions, through which the following indemnity parameters were established for the relatives of workers who were victims of the failure of the B1 Dam: (i) parents, spouses or partners, and children of deceased workers will individually receive R\$ 500,000 for moral damages, and the payment of an additional insurance for work accidents in the amount of R\$ 200,000, (b) brothers will receive R\$ 150,000. There will also be the payment of pecuniary damage to the family of dependents, whose minimum value is R\$ 800,000. The agreement also provides for the benefit of daycare assistance in the amount of R\$ 920 per month for children of deceased workers up to 3 years of age, and education aid in the amount of R\$ 998 per month for children between 3 and 25 years of age. There is also the granting of a lifetime health plan for spouses or partners and for children up to 25 years of age.</p> <p>The agreement also provides for stability for own and outsourced workers, based at the Córrego do Feijão mine on the day of the failure, and for the survivors who were working at the time of the failure, for a period of 03 years, counted from January 25, 2019, which can be converted into cash. The agreement also provides for the payment of R\$ 400.0 million as collective moral damages. Finally, the agreement also determined the release of Vale's amount of R\$ 1.6 billion, which was initially blocked.</p> <p>On August 4, 2019, Vale proved in the records the deposit in court, as a result of the consent decree, in the amount of R\$ 400 million as collective moral damage.</p> <p>On September 26, 2019, a decision was issued, stating that "the termination of the employment relationship is a precondition (necessary precedent) for the exercise of the power to convert provisional stability into cash. With regard to</p>

	<p>the health plan, the approved agreement guarantees such benefit only to spouses, partners, children and dependents of employees who died or disappeared due to the failure of the B1 dam in Brumadinho (item 4 of the agreement), not reaching surviving employees who exercise the option to convert provisional stability into cash", and the request for schedule of a hearing was rejected.</p> <p>On February 10, 2020, in view of a statement by the MPT, Vale stated in the records elucidating the impossibility of discussing the terms of the ACP agreement, in view of the impossibility of investing against the approved instrument of conciliation, clarifying that any and all pending incident or issue is to be solved in the areas of qualifications.</p> <p>On March 26, 2020, the judge granted the management committee's request for allocation of the amount of the indemnity for moral damages, so that part of the amount was allocated to fight Covid-19.</p> <p>On August 20, 2020, the parties, in an amendment to the agreement signed on July 15, 2019, agreed that those interested in enforcing the terms of the covenant may do so by July 15, 2021, subject to the hypotheses already contained in the agreement. The time limit in question shall be set only for the enforcement of the terms of the agreement entered into in the record of that case by qualification of the interested person.</p>
Chances of loss	<p>Likely only for the collective moral damage object and for the other indemnity installments provided for in the agreement entered into on July 15, 2019, namely: daycare allowance, education aid, individual moral damages, pecuniary damages, additional insurance for occupational accidents, granting of health plan, job security, psychological/psychiatric assistance.</p> <p>The other subject matters in the action have a remote "chance of loss."</p>
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The agreement of July 15, 2019 ended the public civil action. The proceeding is strategic for the Company, as it established, by consensus, the indemnity parameters for the relatives of workers who died and disappeared due to the accident.
Notes	Not applicable.

7) Case no. 0010357-31.2019.5.03.0142	
Court	5 th Labor Court of Betim/MG
Instance	Trial Court
Filed on	April 10, 2019
Parties	Metabase Brumadinho / SITICOP-MG / SEERC-MG / FETICOM / SINTEPOPE / Rental Companies MG Workers Union / SINDADOS-MG
Amounts, goods or rights involved	R\$ 10,000,000,000.00
Main facts	<p>The subject matter of this lawsuit is the payment of compensation to the families of deceased or missing victims in the amount of R\$ 10,000,000.00, as well as compensation of R\$ 1,500,000.00 to rescued survivors and R\$ 1,000,000.00 to survivors who were not on site, but that they had a relation of employment or work with Vale. The claim also covers the payment of compensation for material damages to the families of the victims and the surviving victims. At the end, there is still a claim for compensation for collective moral damages equivalent to R\$ 4,000,000,000.00 and compensation for social dumping. Finally, the plaintiffs intend that Vale will be obliged to maintain the workers' jobs, salaries and benefits until the on-site mining activity is resumed and, at least for a period of 3 years, during the period of decommissioning, condemning the Company to reintegrate the employees eventually dismissed after January 25, 2019.</p> <p>A freezing of R\$5,480,000,000.00 was requested in Vale's accounts, which was rejected because the magistrate did not perceive the existence of risk of harm or risk to the useful outcome of the proceeding.</p> <p>Initial hearing held, with the presentation of defense and documents by Vale. Hearing for attempted conciliation scheduled for August 19, 2019, postponed to February 17, 2020, when the Judge granted a new deadline for the parties to attempt at a conciliation, and scheduled an evidentiary hearing for March 27, 2020.</p>

	<p>On said date, the proceeding was removed from the docket, due to the COVID-19 pandemic.</p> <p>Subsequently, the Company entered into a partial agreement with SITICOP, SEERC, SINDIASSEIO, Union of Employees in Security and Surveillance Companies, FETICOM and SINTETOPE, which was duly ratified by the Court on 04/22/2020. Through that agreement, the following parameters have been established:</p> <ul style="list-style-type: none"> a) Surviving employees, own and outsourced workers who were working at the Córrego do Feijão mine at the time of the B1 dam collapse (10/25/2019 at 12:28 pm), regardless of the formal functional allocation, will be paid the amount of R\$ 100,000 for mental distress damages, R\$ 150,000 for property damages and will be granted psychiatric and psychological treatment, in an accredited network, until January 2022 or while the employment contract that already contemplates an equal benefit lasts; b) Allocated employees, who are own and outsourced workers with an active contract as of 01/25/2019, and who actually worked at the Córrego do Feijão mine, although they were not at the said establishment at the exact moment of the B1 dam collapse, and who are not allocated in other Vale's units or in other locations defined by their employers, even though, from time to time or occasionally, they have rendered services at the Córrego do Feijão mine and/or Jangada mine, will be paid the amount of R\$ 40,000 for mental distress damages and R\$ 40,000 for property damages; c) Allocated employees on leave, own and outsourced workers who, at the date of the B1 dam collapse (01/25/2019), were on leave for any reason for more than 30 days, will be paid an indemnity of R\$ 40,000. <p>The execution of the agreement takes place through an enforcement action filed individually by each of the replaced beneficiaries.</p> <p>As for the claims made by the Trade Unions that had not signed the agreement, the Court determined the suspension of the proceedings, due to the COVID-19 pandemic, the relevance and complexity of the proceedings, until the flows of face-to-face hearings were reestablished within the scope of the 3rd Region TRT, in order to designate the instruction hearing.</p>
Chances of loss	<p>Blocking of registration: Remote loss</p> <p>Constitution of capital: Remote loss</p> <p>Individual property damages: Possible loss</p> <p>Individual mental distress damages: Possible loss</p> <p>Collective mental distress damages: Remote loss</p> <p>Social dumping damages: Remote loss</p> <p>Obligation to abstain from dismissing employees with stability: Possible loss</p>
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	<p>The action may increase the damage to Vale's reputation, either because it keeps in evidence all the facts that happened in Brumadinho due to the rupture of the dam and its serious repercussions, or because it continuously revolves the situation of the workers that survived the failure of B1 Dam, as well as the workers based at Córrego do Feijão Mine.</p>
Notes	Not applicable.

8) Case no. 0010319-76.2019.5.03.0026	
Court	5 th Labor Court of Betim/MG
Instance	Trial Court
Filed on	April 05, 2019
Parties	SITRAMONTI-MG - Industrial Assemblies of Minas Gerais Workers Union
Amounts, goods or rights involved	R\$ 500,000.00.
Main facts	<p>The subject matter of this lawsuit is the payment of compensation for material damages to dependents of deceased / missing employees; indemnity for material damages related to all the benefits provided in ACT/CCT, in a single installment; and, alternatively, in the form of pension. The union also intends the payment of compensation of not less than R\$5,000,000.00 for each family group and, finally, the payment of legal fees.</p> <p>Initial hearing held on July 7, 2019, with the presentation of defense and documents by Vale.</p>

	<p>Judgment was handed down, which dismissed the proceeding without resolution on the merits, considering that the lawsuit represented a simulated dispute between the parties, as there is a class action in progress with other unions that address the subject matter of compensation for dependents of missing or deceased employees, and the Plaintiff of this lawsuit does not appear as plaintiff in said class action, and sentenced the parties (plaintiff and defendant) to pay a fine for malicious prosecution, in the amount of R\$ 10,000.00 for each.</p> <p>Vale filed an ordinary appeal, which was dismissed by the TRT. Vale filed a review appeal, whose entertainment was denied by the TRT.</p> <p>Vale filed an interlocutory appeal, which was dismissed by the TST.</p> <p>Currently, the case awaits judgment of the internal interlocutory appeal brought by Vale before the TST.</p>
Chances of loss	<p>Fine for malicious prosecution: Likely loss</p> <p>Other subject matters: Remote loss</p>
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	The case increases the damage to Vale's reputation.
Notes	Not applicable.

9) Cases no. 0000356-94.2019.5.08.0126 and 0000361-07.2019.5.08.0130	
Court	2 nd Labor Court of Parauapebas – PA
Instance	Trial Court
Filed on	Jul 16, 2019 and Jul 19, 2019 - respectively
Parties	Vale S.A. (defendant) and Labor Prosecution Office of Pará ("MPT – PA") (plaintiff)
Amounts, goods or rights involved	Both R\$ 134,483,000.00 (December 31, 2020).
Main facts	<p>On June 16 and 19, 2019, the MPT-PA filed a Public-Interest Civil Action against Vale S.A., claiming several obligations and collective moral damage due to the Water Catchment Dams and Tailings Ponds, located in the Igarapé Bahia Mine - Parauapebas/PA. These obligations would be: (i) immediate declaration of the emergency of both dams; (ii) preparation of an independent technical audit report on the possibility of carrying out emergency activities remotely; (iii) implementing remote correction mechanisms and all necessary safety measures described in the report in favor of protecting direct and indirect workers; (iv) performing a special safety inspection prepared by a multidisciplinary team of experts, hired and paid by Vale; (v) preparing PSB and PAE/PAEBM for the aforementioned dams, containing specifications for the effective protection of workers' safety in the event of failure; (vi) implementing the entire PAE/PAEBM of these dams in the entire area, which could be affected by failure or serious misfortune, and carrying out capacity building and training of workers exposed to risk; (vii) hire an independent audit firm to review and certify the full compliance of the PSB and PAE/PAEBM; (viii) submitting monthly reports in court, signed by a multidisciplinary team of experts or a company hired for this purpose, until a significant reduction in the risk of rupture, and express declaration of workers' safety, or until the issuance of the stability certificate upon presentation of the DCE signed by a competent professional - all of these under penalty of a daily fine of one million reais (R\$ 1,000,000.00).</p> <p>With regard to action no. 361-07.2019.0130, Vale has the following obligations: (i) prove the hiring of companies responsible for the execution of all stages of the construction project, necessary to prevent risks of rupture/overtopping of the indicated dams; (ii) prove the hiring of a company responsible for the design and execution of temporary emergency measures, such as water pumping and control of the free board of dams; arranging for the hiring of a independent audit firm to monitor and certify the court on compliance with obligations; (iii) perform basic safety maintenance works/services at the dams; (iv) preparing and implementing a specific risk study; (v) perform risk mitigation measures, implementing the water pumping system, and control of free board of the dams; (vi) prepare a specific risk study; (vii) carry out the projects to implement the spillway systems of both dams; (viii) preparing and implementing a specific study of risks to which the workers who will carry out the measures will be exposed; (ix) execute mitigating measures recommended by the independent external audit; (x) disclose on major newspapers, as a relevant fact, the decisions on provisional and definitive relief; (xi) periodically submit - 30 days - progress report on the measures described in the previous orders; all of these</p>

	<p>obligations are linked to a fine of one million reais (R\$ 1,000,000.00) in case of noncompliance; collective moral damage.</p> <p>On July 19, 2019, a decision was issued on the request for injunction for Vale to declare the emergency situation of both dams, submit a report to be prepared by an independent technical audit, among others, under penalty of a daily fine of one million reais (R\$ 1,000,000.00). A request for reconsideration was requested by Vale, which was accepted by the court that suspended the injunction.</p> <p>On August 2, 2019, the first hearing took place, where the parties decided to reconcile (in both actions) with regard to some obligations, one of which being the declaration of an emergency situation (although it does not recognize it), in addition to several obligations, each with a specific term.</p> <p>After several administrative meetings between MPF and MPT, an out-of-court agreement was ratified, in which Vale replaced the external audit company (Walm) with another that fit the concept of independent of the MPs (PCE). In return, MPT and MPF waived the portion of collective moral damage.</p> <p>The settlement was ratified judicially and also reaches the two ACPs that are pending before the Federal Court (1002242-17.2019.4.01.3901 and 1002244-84.2019.4.01.3901).</p> <p>Currently, the obligations are being complied with and some works have already been closed. Vale and PCE are holding meetings to debate the report issued, especially regarding the withdrawal of N1 from water catchment.</p>
Chances of loss	Remote
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The Company considers the lawsuits to be relevant and strategic because of the amount involved and the matter discussed in the suits, which is linked to the dam safety issue.
Notes	These lawsuits are being processed together and serve the same subject matter on the same site - Igarapé Bahia and its water intake and tailings dams and ponds. A first agreement was formalized in both proceedings where the obligations of one complement the other.

10) Case no. 0001703-41.2014.5.08.0126	
Court	2 nd Labor Court of Parauapebas – PA
Instance	Trial Court
Filed on	11/27/2014
Parties	Vale S.A. (defendant) and Labor Prosecution Office of Pará ("MPT – PA") (plaintiff)
Amounts, goods or rights involved	R\$ 500,000.00 (amount in dispute)
Main facts	<p>The Labor Prosecution Office of the 8th Region has filed a Public-Interest Civil Action against Vale S.A. and the Metabese Trade Union of Carajás, claiming preliminary judgment as to the obligation to do and not to do so that the working hours of all employees who hold a higher education degree, managers and supervisors are recorded, under penalty of a fine in the amount of R\$ 20,000.00, and the time of arrival and leave of employees under these categories begins to be immediately recorded, as well as granting an intra-day and inter-day break, correctly compensating with a 50% premium when there are overtime hours. Finally, it requested, on a preliminary basis, that Vale refrain from collectively agreeing clauses that do not require the working hours record.</p> <p>In a judgment, the judge of the 2nd Labor Court of Parauapebas partially granted the request, obliging Vale to immediately implement the proper control of the working hours of employees with a higher education degree (invalidating the clause of the collective agreement), except for those who meet the requirements of art. 62 of the CLT. It has entered judgment against the trade union regarding the obligation to do and not to do, so that it is prevented from entering into clauses that exempt employees from signing their attendance.</p> <p>Vale was also ordered to pay R\$ 300,000.00 (three hundred thousand reais), as compensation for collective moral damages.</p>

	<p>An ordinary appeal was filed against that decision, aiming at reversing the decision to be totally unfounded. The MPT appealed only against the issue of allocating the indemnity amount and increasing the amount.</p> <p>The case record was assigned to the 3rd Panel of TRT8, where they decided to exclude the collective moral indemnity, but the invalidation of the clause that exempts higher-education staff, managers and supervisors from signing their attendance was upheld.</p> <p>The case record is currently with TST, assigned to the 8th Panel, with Judge Maria Cristina as rapporteur. The case record is suspended due to the court decision of ARE 1.121.633 at STF – Topic 1,046, in which it will be decided on the validation/invalidation of clauses of the Collective Agreement/Convention.</p>
Chances of loss	Possible loss due to the pending judgment of Topic 1,046 at STF.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The Company considers the case to be strategic, as the MPT seeks to invalidate a clause included in the ACT that exempts higher-education staff, managers, supervisors, etc. from signing their attendance. If the decision is upheld, with the clause being invalidated, the financial reflexes will be highly expressive.
Notes	Demand involving request for invalidation of the clause of the Collective Agreement.

(ii) Taxes

The tables below present an individual description of tax proceedings considered relevant to the Company's and/or its subsidiaries' businesses as of December 31, 2020.

As a result of the classification of tax cases as likely loss, the Company has constituted, over the years, a provision that added up to, on December 31, 2020, the amount of approximately R\$ 2.520 billions related to the Company, subsidiaries and divested companies, whose liabilities remain under the responsibility of Vale.

1) Rescisory Action (<i>Ação Rescisória</i>) no. 2006.02.01001869-2	
Court	Superior Court of Justice (STJ)
Instance	3rd Instance
Filed on	February 20, 2006
Parties	Federal Government (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Not applicable.
Main facts	<p>In 2004, a judgement by the Superior Court of Justice ("STJ") became unappealable in favor of Vale, granting Vale the right to deduct the amounts of social contributions over net income ("CSLL") from Vale's taxable corporate income ("IRPJ").</p> <p>In 2006, the Federal Government filed a rescisory action (<i>ação rescisória</i>) seeking the reversal of the 2004 final decision. The action was rejected by the Federal Court of Rio de Janeiro and by the Federal Court of Appeals ("TRF") of the 2nd Region.</p> <p>In 2008, the Federal Government filed motions for clarification in view of TRF's decision, and such motions were denied.</p> <p>In 2009, the Federal Government appealed to the STJ and the Federal Supreme Court ("STF").</p> <p>In 2012, the special appeal was denied, but an interlocutory appeal from this decision by the Federal Government was granted. That lead to the submission of an interlocutory appeal by Vale in 2014.</p> <p>In 2016, Vale's interlocutory appeal was dismissed and the STJ ordered that the case be referred to the TRF for a new judgment on the motions for clarification by the Federal Government in 2008.</p> <p>In 2017, Vale presented its counter-arguments.</p> <p>In 2019, the TRF, in a new judgment, granted the motion for clarification filed by the Federal Government, in order to dismiss the decision issued in 2004 that was favorable to Vale. In view of the new TRF decision, Vale filed a motion</p>

	for clarification, which was not granted.
	In 2020, Vale filed a Special Appeal and an Extraordinary Appeal, which were accepted by the Vice-President of the TRF. Vale is awaiting judgment on the Special Appeal.
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In the event of a definitive judgement in the Rescission Action (Ação Rescisória) determining the annulment of the 2004 judgment, the Company will no longer be able to deduct the CSLL from taxable income.
Notes	Due to the developments of this action, Vale decided not to deduct CSLL from its taxable profit, as of the fiscal-year 2018. See Item 4.3 sub-item 6, below.

2) Writ of Mandamus (Mandado de Segurança) No. 2011.51.01.011763-1	
Court	17 th Federal Court of the Judiciary Section of Rio de Janeiro
Instance	Trial Court
Filed on	August 5, 2011
Parties	Inspector of the Federal Revenue Service of the State of Rio de Janeiro (defendant) and Vale S.A. (successor of Valepar S.A. by merger, as of 2017, plaintiff).
Amounts, goods or rights involved	Total judicial deposits: R\$2.5 billion (December 31, 2020) and R\$ 533 million relating to the adhesion to Refis.
Main facts	<p>In 2011, Valepar (merged into Vale in 2017) filed for a Writ of Mandamus with the purpose of safeguarding its right not to include the amounts received as interest on net equity ("JCP") in the tax base for the calculation of PIS and COFINS from the year 2004 onwards. Valepar argued, in summary, inequality of treatment of taxpayers, based to the tax regime and/or domicile of the shareholder. Valepar deposited the amounts of PIS and COFINS on the JCP at each distribution.</p> <p>The decision of the first instance court extinguished the lawsuit without judgment on the merits, in view of alleged <i>lis alibi pendens</i> of another Writ of Mandamus previously filed by the Company.</p> <p>In 2012, the Appeal was filed by Valepar and denied by the court.</p> <p>In October 2013, the Special and Extraordinary Appeals were filed by the Company. In December 2013, the company adhered to REFIS, instituted by Law no. 12,865/2013, and partially withdrew from the legal discussion regarding the taxable events of Oct/2004, Apr/2005, Oct/2005, Apr/2006, Oct/2006, Apr/2007, Oct/2007, Apr/2008 and Oct/2008. After the adhesion to REFIS, a judicial decision confirmed the Company's partial withdrawal of the appeals related to the charges included in the REFIS.</p> <p>In 2014, the Special and Extraordinary Appeals were denied, and Interlocutory Appeals were filed against the decisions.</p> <p>In 2016, a favorable decision in Valepar's Special Appeal dismissed the <i>lis alibi pendens</i> argument, annulling the judgment and ordering that the records of the proceedings be returned to the original court, so that it analyzes the merits of the case.</p> <p>In 2017, an unfavorable decision ordered the conversion of all the deposits made into Federal Government income, subject to the lawsuit becoming unappealable. Motion for clarification was filed, and was dismissed.</p> <p>In 2018, an Appeal was filed, and was denied. The Motion for Clarification filed against this decision was rejected.</p> <p>In 2019, Vale filed a new Extraordinary Appeal, which was rejected by the Vice President of the Regional Federal Court of the 2nd Region. Thus, an Interlocutory Appeal was filed. Upon receiving the case, the Federal Supreme Court determined the overturn of the Writ of Mandamus due to the general repercussion in RE 607.642.</p> <p>Vale has filed an Interlocutory Appeal against this decision, arguing that the general repercussion does not apply to the case, since the leading case discusses the constitutionality of the non-cumulative PIS tax established by Law no. 10,637/02 on the billing of legal entities that provide services.</p>

	<p>In 2020, Vale informed that it requested the partial withdrawal of the process with respect to the remaining tax credit related to the taxable events occurred between October/2009 and April/2017 (which period was not included in the REFIS), thus waiving, in this part, any allegations of law on which the present action is based. The request for partial withdrawal was ratified and became final and unappealable on August 4, 2020.</p> <p>Once the discussion on the merits of the case was concluded, Vale made the following requests: (i) as to the judicial deposits related to the first partial withdrawal (taxable events occurred between October/2004 and October/2008): the withdrawal, in favor of Vale, of the part of the judicial deposits related to the amounts forgiven due to the adhesion to REFIS and the conversion of the remaining balance into income of the Federal Government;; (ii) as to the judicial deposits related to the second partial withdrawal (taxable events occurred between October/2009 and April/2017): the conversion into income of the Federal Government.</p> <p>The Federal Government opposed the request to withdraw in favor of Vale any amount deposited in court, alleging non-compliance with the REFIS adhesion requirements. Vale refuted this allegation. Vale is waiting a judicial decision on this issue and on the above requests.</p>
Chances of loss	Probable
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In light of the withdrawal of the lawsuit: (i) the judicial deposits will be partially converted into income in favor of the Federal Government; and (ii) Vale's withdrawal claim for part of the amounts deposited due to adhesion to Refis may not be granted.
Notes	Not applicable.

3) Administrative Proceeding No. 16682.720914/2019-17	
Court	Administrative Council for Tax Appeals ("CARF").
Instance	2 nd Administrative Instance
Filed on	November 26, 2019
Parties	Federal Government (plaintiff) and Vale (defendant).
Amounts, goods or rights involved	As of December 31, 2020, the total amount in dispute was R\$1.58 billion, in addition to the reduction of tax losses and the negative CSLL taxable basis for the years 2015 and 2016, with a total tax effect of R\$1.4 billion, plus fine and interest.
Main facts	<p>In November 2019, Vale was assessed for the collection of corporate income tax (IRPJ) and social contribution on net income (CSLL), for the base years of 2015 and 2016.</p> <p>This charge arises from the alleged unduly deduction of costs of intermediation in the Company's determination of the transfer pricing basis related to exports of iron, copper and manganese to its subsidiary abroad.</p> <p>Vale's claim was judged unfounded and Vale is currently waiting the judgment of its voluntary appeal.</p>
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In case of an unfavorable final administrative decision, a guarantee may be required to secure payments of the amounts under discussion.
Notes	Vale was assessed for the base-year 2017 (see item 4.7 for more information). It is possible that similar tax assessments may be received in relation to other years.

4) Tax Injunction No. 0021378-63.2018.4.01.380	
Court	Regional Federal Court of the 1 st Region
Instance	Appellate Court
Filed on	June 5, 2018
Parties	Federal Government (plaintiff) and Vale S.A. (defendant) and others.
Amounts, goods or rights involved	The request deals with the seizure of assets and unavailability rights in order to secure the payment of tax and social security credits in the amount of approximately R\$ 11 billion (as of June 2018).
Main facts	The Federal Government requested before the 27 th Federal Court of Belo Horizonte, that Samarco shareholders' assets and rights become unavailable, as a precautionary measure to secure the payment of alleged tax and social security debts of Samarco, in the amount of R\$ 11 billion (as of June, 2018).

	<p>Initially, an injunction was granted to seize Vale's assets and rights. This decision was reversed in all relevant aspects, because the enforceability of the debts covered by the injunction had been suspended under Brazilian law.</p> <p>Vale's summons was attached to the case record in January 2019, and the Company filed its defense in a timely manner. The defense was based on the lack of legal grounds for the filing of such lawsuit, in view of the suspended enforceability of the tax and social security debts, as well as in the non-occurrence of the legal hypotheses that would authorize Vale to be held liable for paying the amounts in question.</p> <p>In May 2019, a favorable judgment was rendered for the dismissal of the case without prejudice, due to lack of interest in the suit. The Federal Government filed a Motion for Clarification against such decision.</p> <p>In June 2019, a decision was issued that partially accepted such Motion for Clarification solely to restrict the confidentiality of documents attached to the records.</p> <p>In July 2019, the Federal Government filed an appeal against that decision, and Vale presented its briefs. Vale is waiting judgment of the Federal Government's appeal.</p>
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	Seizure of assets and unavailability rights in order to secure the payment of tax and social security credits in the amount of approximately R\$ 11 billion (as of June 2018).
Notes	Not applicable.

5) Administrative Proceeding No. 16682.721173/2013-04	
Court	Higher Chamber of Tax Appeals of the CARF
Instance	3 rd Administrative Instance
Filed on	November 14, 2013
Parties	Federal Government (plaintiff) and Vale (defendant).
Amounts, goods or rights involved	R\$ 1.85 billion (as of December/2020)
Main facts	<p>Vale was assessed by the Brazilian Internal Revenue Service for the collection of an isolated fine due to alleged omissions and inaccuracies in magnetic files in the delivery of accessory obligations related to PIS and COFINS from 2008 to 2010, based on IN/RFB 86.</p> <p>The collection considered as basis for calculation 1% of the gross revenue in the years 2008 to 2010.</p> <p>A favorable decision was rendered at the first administrative level, which reduced the percentage of the fine on gross revenue from 1% to 0.2%.</p> <p>At the second administrative level, Vale obtained another favorable decision, which maintained the fine percentage of 0.2% and limited the taxable basis so that only the billing for the month prior to the delivery of the magnetic files is considered.</p> <p>The Federal Government filed an administrative appeal against this decision, which is pending judgment.</p>
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In the event of an unfavorable final administrative decision, Vale will have the opportunity to present a guarantee in order to continue the proceeding at the judicial level.
Notes	Not applicable.

6) Infraction Notice no. 16682.721.163/2020-90	
Court	Regional Judgment Office ("DRJ")
Instance	1 st Administrative Instance
Filed on	November 24, 2020
Parties	Federal Government (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	R\$ 2.3 billion (as of December/2020)
Main facts	<p>In November 2020, Vale was assessed for the collection of R\$2.3 billion in IRPJ and fines for the base years 2016 and 2017, related to the disallowance of the CSLL deduction from taxable income.</p> <p>Vale contested the tax assessment in the first administrative instance, which</p>

	is awaiting judgment.
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	In the event of an unfavorable final administrative decision, Vale will have the opportunity to present a guarantee in order to continue the proceeding at the judicial level.
Notes	See Item 4.3 sub-item 1 above.

(iii) Civil

As of December 31, 2020, the Company's consolidated financial statements were provisioned with R\$ 1.354 billion to cover possible losses in civil actions.

The tables below present an individual description of the civil cases deemed relevant for the business of the Company and/or of its controlled companies, filed up to December 31, 2020.

1) Case no. 0063023-34.2008.8.19.0001	
Court	41 st Civil Court of the State Appellate Court of Rio de Janeiro
Instance	Trial Court
Filed on	Mar 17, 2008
Parties	Vale (plaintiff) and the Landless Workers' Movement ("MST") (defendant)
Amounts, goods or rights involved	Protection of the Company's assets and guarantee of its operational activities.
Main facts	<p>Vale filed a lawsuit with the purpose of ceasing violent acts of violation or incitement by the MST that would cause the halting of the Company's operational activities. The request for interlocutory relief was granted so as to determine that the MST refrain from such acts. The MST failed to comply with said judicial order, reason why Vale requested an increase to the fine established in case of non-compliance, which was granted by the court.</p> <p>In 2012, the parties initiated efforts towards a possible settlement for the resolution of this case. On July 06, 2015, an order was published determining that the parties should state whether they were in fact interested in entering into an agreement, it being no longer possible for the parties to request the suspension of the case. Production of evidence phase started. By reason of the recent non-compliance with the judicial order that granted the interlocutory relief on the case, Vale requested a new application and increase to the fine previously established.</p> <p>On September 30, 2016, the case left the sentencing group because the judge found that part of the order had not been complied with. Following that, the judge ordered the Plaintiff to request the collection of costs for the expedition of the letters rogatory intended to collect the testimony of the witnesses he called, a decision published on October 19, 2016.</p> <p>On October 26, 2016, Vale filed the petition declining from the testimonial evidence due to the long time elapsed since the filing of the lawsuit, requesting the confirmation of the preliminary injunction granted in 2008 and the granting of the claim of the initial pleading, as well as the increase to the fine for failure to comply with the interlocutory relief, in view of the new non-compliances reported in the record.</p> <p>On February 15, 2018, a judgment was entered in the record and, thus, Vale's claim was granted to determine that the defendants abstain from inciting and promoting the practice of violent acts against the facilities of the plaintiff, as well as acts that might cause the interruption of the plaintiff company's activities, within 72 hours counting from the disclosure of the judgment, under penalty of a fine of R\$ 100,000.00 per act practiced in disagreement with this precept. The judgment also confirmed the order, making it definite, observing the increase to the applied fine. The defendants were also ordered to pay the procedural costs and attorney's fees in favor of the plaintiff's lawyer, which were set at 10% of the amount in dispute.</p> <p>On April 20, 2018, the notary office certified that the decision was made final and unappealable.</p> <p>In mid-2018, the execution of the judgment was begun to receive fines, costs</p>

	<p>and fees for loss of suit, and, on February 26, 2019, the issuance of a letter rogatory for subpoena and summons of the enforced parties was deferred, not having been dispatched.</p> <p>On May 14, 2019, the Letter Rogatory is received at the TJ/SP and returns to the TJ/RJ in September 2019 with a negative result. As a result, the issuance of a new letter was requested, which has been granted. Such letter rogatory was issued on September 23, 2020.</p>
Chances of loss	Remote
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	The case was initiated with the purpose of guaranteeing the protection of the Company's assets and its operational activities. Any unfavorable decision might increase the company's exposure to the incitement acts of the MST.
Notes	Not applicable.

2) Case no. 0009362-71.1997.4.02.5001	
Court	5 th Panel of the Regional Federal Court of the 2 nd Region
Instance	2 nd instance
Filed on	November 10, 1997
Parties	Public Prosecutors' Office of Espírito Santo (plaintiff) and Federal Government, Gerdau Açominas S.A., Companhia Siderúrgica de Tubarão, Usinas Siderúrgicas de Minas Gerais S.A., Vale, Odacir Klein, Luis Andre Rico Vicente, Jorge Eduardo Brada Donato, José Armando Figueiredo Campos, Rinaldo Campos Soares, João Jackson Amaral, Claudio José Anchieta de Carvalho Borges, Ivo Costa Serra, and Companhia Docas do Espírito Santo (CODESA) (defendants).
Amounts, goods or rights involved	Incalculable – Request to annul the port concession contract for Tubarão Complex's terminals.
Main facts	<p>This is a public-interest civil action that seeks to annul the authorization by which Vale and some of the other defendants operate Praia Mole Port Terminal in the state of Espírito Santo.</p> <p>In November 2007, 10 years after the case was filed, a sentence was issued, deeming the case to be completely groundless and recognizing the validity of the concession contracts that permit the use of the port terminals located at Praia Mole.</p> <p>On July 03, 2012, the judgment was upheld by the Regional Federal Court of the 2nd Region (TRF2) when judging an appeal filed by the Federal Prosecution Office. The latter, unhappy with the decision of the TRF2, filed a Special (STJ) and Extraordinary (STF) Appeal on October 23, 2012. Judgment of Special Appeal no. 1534854/RJ is pending before the STJ. Case under advisement for judgment since June 14, 2019.</p>
Chances of loss	Remote
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	Incalculable value, as it could impact Vale's operations in the State of Espírito Santo, since this proceeding challenges the validity of the concession agreement for the exploitation of the Tubarão Complex Terminals.
Notes	Not applicable.

3) Case no. 0024892-89.2011.8.13.0570	
Court	1 st Civil Court of the Judicial District of Salinas, Minas Gerais
Instance	Trial Court
Filed on	Sept 14, 2011
Parties	Minas Gerais State Public Prosecutors' Office ("MPMG") (plaintiff); Vale S.A., Instituto de Terras de Minas Gerais ("ITER"), Manoel da Silva Costa Junior, Evandro Carvalho, Mauro Eurípedes Rocha Mendes, Ricardo de Carvalho Rocha, Luciana Rocha Mendes, Orozino Marques de Carvalho, Adelzuith Marques Santos, Altamar Alves Ferreira, and Breno Rodrigues Mendes (defendants).
Amounts, goods or rights involved	Compensation for damages to the state government of Minas Gerais amounting to at least R\$200 million, a civil fine of no less than R\$600 million, and the ownership of lands acquired by Vale. However, it should be noted that these sums were attributed by the Plaintiff, and it is not possible at this time to estimate the possible amount to be settled by the Company.
Main facts	<p>This is a public-interest civil action filed by the State Public Prosecutors' Office against Vale and 10 other defendants. In short, the Public Prosecutors' Office argues for the existence of an <i>"organized group of people who have acted to illegally appropriate lands belonging to the state government of Minas Gerais."</i></p> <p>The Public Prosecutors' Office requested an injunction to seize the assets of the defendants, <u>except Vale</u>, up to the sum of R\$200,000,000, to carry out a search and seizure of movable assets, and to remove their banking and tax confidentiality. The injunction was granted by the court and upheld by the Minas Gerais Court of Appeals. In the end, the Public Prosecutors' Office</p>

	<p>requested the following: <i>"the suspension of all effects – and consequent annulment – of all titles of legitimate agricultural use issued by ITER involving lands located in the municipalities of Salinas, Santa Cruz de Salinas, Padre Carvalho, Fruta de Leite and Rubelita, in the period between January 2007 and August 2011"</i>; an order for ITER <i>"to hire a specialized company, at its own expense, to carry out an audit of all the titles of legitimate agricultural use issued by the state government of Minas Gerais in the period between January 2007 and August 2011"</i>; to condemn all the defendants <i>"to the loss of illegally gained goods or sums"</i>; to <i>"provide full compensation for the harm imposed on the state government of Minas Gerais, whose minimum value must be R\$200,000,000"</i>; to levy a <i>"civil fine of no less than R\$600,000,000"</i>; to <i>"remove their public functions and positions"</i>; to <i>"suspend their political rights"</i>; and to <i>"prohibit them from entering into contracts with the public authorities or receiving benefits from them."</i></p> <p>Vale presented its defense (challenge) on March 15, 2012, but the fact-checking stage has not yet begun. On March 23, 2017, a conflict of jurisdiction was claimed. On May 8, 2017, the Judge raised a "positive conflict of jurisdiction", which is why the TJMG established the conflict of jurisdiction No. 0238729-84.2017.8.13.0000, defining the jurisdiction of the Judge of the 1st Civil Court of the Judicial District of Salinas to adjudicate the public-interest civil action.</p> <p>On October 26, 2018, the Motion for Clarification filed by Vale was not accepted, which refuted the removal of the preliminary indictees, and a review was not filed due to the prohibition of art. 1015 of CPC/15. In any case, the Judge deferred the probation delay and the possibility of defining the object of the investigation to be performed at the time of the Instruction and Judgment Hearing, not causing damages to the Company. On May 3, 2019, the case was closed for dispatch.</p> <p>A Pretrial Hearing, assigned for September 14, 2020, was cancelled due to the COVID-19. Reassignment is currently awaited.</p>
Chances of loss	Possible
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	Harm to the Company's image by having its name associated with the practice of fraudulent appropriation of lands in the northern part of the state of Minas Gerais, the cancellation of land acquisitions, and the loss of sums paid by Vale (approximately R\$35.0 million).
Notes	Not applicable.

4) Extraordinary Appeal – 808621	
Court	Federal Supreme Court
Instance	Superior
Filed on	May 15, 2014
Parties	Interunion Capitalização S.A. (plaintiff) and others; Companhia Paulista de Ferro Ligas (CPFL) (defendant)
Amounts, goods or rights involved	R\$ 1,890,847,736.83 (as of December 31, 2020)
Main facts	<p>Interunion filed an enforcement procedure against Vale subsidiary CPFL to demand R\$248,968,222.18, corresponding to 200 bonds that were the subject of a contract that despite being titled "Purchase and Sale of Bonds," was in fact a bond lease contract. The defense (motion to stay execution) presented by CPFL was rejected, leading it to file an appeal with the Bahia Court of Appeals. In judging this appeal, the Bahia Court of Appeals upheld the decision to reject the appeal. CPFL then filed a special appeal with the Superior Court of Appeals. The Superior Court of Appeals accepted CPFL's special appeal and ordered the annulment of the enforcement process, deeming that Interunion had not adequately demonstrated the calculation of the enforced amount, which is indispensable when requesting such an enforcement process. Interunion then filed a series of appeals against the Superior Court of Appeals' decision (a motion for clarification, an appeal against a divergent decision, an internal interlocutory appeal, and a new motion for clarification), all of which were rejected in turn. Interunion then filed an extraordinary appeal with the Supreme Federal Court. When examining this appeal's admissibility, the Superior Court of Appeals deemed that the appeal was groundless and did not allow it to progress to the Supreme Federal Court for analysis of the case's merits, in line with the ruling published on March 10, 2014. Interunion filed an appeal against this decision of inadmissibility, and on April 22, 2014 it was submitted to the Supreme Federal Court. The Office of the Prosecutor General then issued an opinion, ruling that the extraordinary appeal should not be allowed to proceed.</p>

	<p>After this opinion was issued by the Office of the Prosecutor General, a single-judge decision was handed down, rejecting the extraordinary appeal, published on August 30, 2016. On September 5, 2016, Interunion filed an internal interlocutory appeal against the single-judge decision. On September 13, 2016, permission was granted for the defendant to present its counterarguments. The appeal was judged on October 4, 2016. On the same date, in a subsequent act, the records were concluded with the Justice Rapporteur and are pending judgment.</p> <p>On August 7, 2017, the internal interlocutory appeal was included in a virtual list to be tried, however, Interunion, due to the relevance of the case, filed a timely petition requiring that the judgment not be given virtually. This request was accepted by Justice Rapporteur Gilmar Mendes on August 23, 2017.</p> <p>On August 21, 2017, it was deferred emphasis on face-to-face trial of the extraordinary appeal. As a result, the records returned for completion on September 15, 2017 and remain so until then.</p> <p>Interunion's interlocutory appeal was judged and was dismissed by unanimous vote, and its judgment was published on May 17, 2021. Against this decision Interunion filed a motion for clarification and, as a result, a period was allowed for CPFL to manifest itself, whose term expires on June 2, 2021.</p>
Chances of loss	Remote
Impact analysis in case of loss / Reasons of the relevance of the lawsuit for the Company	An unfavorable decision in the case would generate financial losses to the Company.
Notes	Not applicable.

5) Case no. 1024354-89.2019.4.01.3800 (former no. 0069758-61.2015.4.01.3400)	
Court	12 th Federal Court of Minas Gerais
Instance	Trial Court
Filed ON	Dec 17, 2015
Parties	Federal government, Brazilian Environmental Protection Agency ("IBAMA"), Chico Mendes Institute, National Water Agency ("ANA"), National Mineral Production Department ("DNPM"), State Government of Minas Gerais, State Forest Institute ("IEF"), Minas Gerais Water Management Institute ("IGAM"), State Environmental Foundation ("FEAM"), State Government of Espírito Santo, State Environment and Water Resources Institute ("IEMA"), and State Water Resources Agency ("AGERH"), and together with the other plaintiffs listed above, "Plaintiffs", and Samarco, Vale, BHPB (collectively, "Defendants").
Amounts, goods or rights involved	Amount in dispute by the Plaintiffs of R\$ 23,955,160,294.89, which, updated until December 2020, represents R\$ 30,572,622,732.24. Given the subject matter and progress of the case, the Company deems the sum arising from a possible condemnation to be inestimable.
Main facts	<p>On December 17, 2015, the Federal Government filed a public-interest civil action aimed at forcing Vale, Samarco and BHPB to take a series of urgent measures, in order to repair alleged social and environmental damage arising from the failure of Samarco's tailings dam in the municipality of Mariana ("Fundão Dam") and to prevent potential future environmental damage. For information on this accident, see item 7.9 of this Reference Form.</p> <p>On December 18, 2015, a decision was handed down, granting an injunction requested by plaintiffs, in order to: (i) determine that Samarco prevents (or proves that it is already contained) the leakage of the volume of tailings that are still in the collapsed dam; (ii) order the Defendants to: (a) hire companies to immediately start evaluating the contamination of fish by inorganic substances and any potential risks caused by human consumption of these fish, and to control the proliferation of species benefiting from the manmade occurrence; and (b) carry out studies and take measures to prevent the volume of mud discharged into the Doce River from reaching the Doce River lagoon system and to protect the mineral water sources mapped by DNPM; (c) carry out studies to map the different levels of potential resilience of the impacted locations; (iii) order Samarco to make an initial deposit in court of R\$2.0 billion; (iv) freeze the Defendants' existing mining concession licenses; (v) grant an injunction to force the Defendants to present an overall social and environmental recovery plan for the Doce River Basin and the entire degraded area; and (vi) order the provision of services to the people impacted by the disaster. Within the scope of the decision in question, a daily fine of R\$150,000 was also established in the event of non-compliance with each of the measures imposed on the Defendants, and a daily fine of R\$1.5 million was established in the event of a delay in making the aforementioned mandatory R\$2.0 billion</p>

	<p>deposit in court.</p> <p>On January 14, 2016, Vale, Samarco and BHP filed an interlocutory appeal against the injunction, requesting the suspension of the injunction's effects and a comprehensive reversal of it.</p> <p>On February 5, 2016, Samarco filed a challenge, arguing there was a lack of procedural assumptions and merit, also alleging that it has already been adopting the measures intended in the action on a voluntary basis, requesting the dismissal of the claims of the initial petition, through the revocation of the interlocutory relief and the provisional remedies granted provisionally. On March 2, 2016, the Federal Government, the State Government of Minas Gerais and various other governmental authorities entered into a Transaction and Conduct Adjustment Agreement ("<u>TTAC</u>"), which was submitted to the court on March 7 with a request for its judicial ratification.</p> <p>On May 5, 2016, at a hearing attended by the parties to the case and the Federal Public Prosecutors' Office, the TTAC was registered within the Federal Court Conciliation System, an organization that is part of the structure of the Regional Federal Court of the 1st Region, and the lawsuit was suspended during the period of execution of the obligations assumed by the parties within the scope of the TTAC.</p> <p>On August 17, 2016, the 5th Panel of the Regional Federal Court of the 1st Region declared null and void the decision that approved the TTAC and rejected the interlocutory appeals made by Vale, BHP and Samarco, while upholding the injunction granted by the 12th Federal Court of Belo Horizonte on December 18, 2015, including the freezing of the Defendants' mining concessions, but without limiting their production and sale activities.</p> <p>On November 4, 2016, the Federal Courts ordered the Defendants to: (i) present evidence, within 90 days, that the leakage of waste from the Fundão Dam had been definitively contained; (ii) to submit conclusive studies within six months, endorsed by the relevant environmental agencies, regarding an action plan and the feasibility of removing the mud spread along the banks of the Doce River, along its tributaries and in areas near its estuary; and (iii) to make a deposit of R\$1.2 billion, within 30 days, to guarantee future remedial measures. This cash deposit of R\$1.2 billion was provisionally replaced by the guarantees provided for in Preliminary Conduct Adjustment Agreement I ("<u>Preliminary Conduct Adjustment Agreement I</u>").</p> <p>On January 18, 2017, the Federal Public Prosecutors' Office, Vale, Samarco and BHPB filed a petition to: (i) report the signing of Preliminary Conduct Adjustment Agreement I by the parties; (ii) accept the guarantees provided for in this agreement for the purpose of provisional compliance with the requirement to make the deposit specified in the injunction granted within the scope of Public-Interest Civil Action 0069758-61.2015.4.01.3400; and (iii) request the suspension of the case.</p> <p>On January 26, 2017, a decision was handed down, suspending the procedural timeframe related to the deposit of R\$1.2 billion and providing five days for the plaintiffs to express their opinion on Preliminary Conduct Adjustment Agreement I, entered into by the defendants and the Federal Public Prosecutors' Office.</p> <p>On March 16, 2017, a decision was issued, which: (i) partially approved Preliminary Conduct Adjustment Agreement I, ordering the suspension of the case until a further judicial decision; and (ii) accepted, for the time being, the guarantees provided for in Preliminary Conduct Adjustment Agreement I, with the condition that they would not replace or modify the order for a cash deposit specified in the injunction.</p> <p>On June 29, 2017, a decision was issued to grant the request to extend the deadline formulated by the parties and consequently to approve a partial alteration to the TAP, granting a deadline of October 30, 2017 for the parties to present the court with the terms of the final agreement (TACF). The same decision extended the legal and procedural effects of the Preliminary Consent Decree and of the confirmatory decision dated March 16, 2017.</p> <p>On October 31, 2017, a decision was rendered which, by granting the request submitted by Samarco, Vale, BHP and the Federal Prosecution Office, ratified a partial amendment to the Preliminary Consent Decree, granting the deadline</p>
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	<p>until November 16, 2017 for the submission of the terms of the final agreement (TACF). The same decision extended the legal and procedural effects of the Preliminary Consent Decree and of the confirmatory decision dated March 16, 2017.</p> <p>On November 20, 2017, a decision was rendered which, by granting a request submitted by Samarco, Vale, BHP and the Federal Prosecution Office, ratified a partial amendment to the Preliminary Consent Decree, granting the deadline until April 20, 2018 for the submission of the terms of the final agreement (TACF). The same decision extended the legal and procedural effects of the Preliminary Consent Decree and of the confirmatory decision dated March 16, 2017.</p> <p>On May 3, 2018, a decision was rendered authorizing the hiring of the Getúlio Vargas Foundation to act in the socio-economic diagnosis of the impacts resulting from the rupture of the Fundão Dam, as a technical assistant.</p> <p>On August 8, 2018, the Consent Decree ("<u>TAC Governance</u>") was approved in its entirety and the amendment term to the preliminary adjustment term (TAP) was ratified in part and with interpretative/additive opinions. In view of these ratifications, the phase of knowledge of ACP No. 0069758-61.2018.4.01.3400 was dismissed with prejudice. It should be noted that the TAC Governance consists of an instrument signed on June 25, 2018 with the Federal Prosecution Office, Public Prosecution Office of the State of Minas Gerais, Public Prosecution Office of the State of Espírito Santo, Public Defender's Office of the State of Minas Gerais, Public Defender's Office of the State of Espírito Santo and other public entities, whose purpose is (a) to change the governance process provided for in the TTAC to define and execute the programs, projects and actions that are intended to provide full compensation for damages arising from the failure of the Fundão Dam; (b) improvement of mechanisms for effective participation of those affected by the failure, and (c) establishment of a negotiation process aimed at the possible renegotiation of the programs.</p> <p>The TTAC remains valid and the parties will continue to fulfill their obligations already provided for.</p> <p>For additional information on the main terms and conditions of the TTAC, Preliminary Consent Decree I and TAC Governance mentioned above, see "Terms Related to the Failure of the Samarco Dam" in item 4.7 of this Reference Form.</p> <p>On December 11, 2019, a hearing was held to present the thematic axes defined as priorities by the stakeholders, in addition to any agreements or controversial points to be considered in due course, whereby the parties submitted such divergences in relation to the interpretation and/or compliance, by Renova Foundation, of the obligations provided for in the TTAC, for judicial consideration.</p> <p>Such thematic axes were agreed upon in addition to the mechanisms provided for in the TTAC, which had been used, for administrative discussion within the scope of the CIF and the presentation of incidents of divergence, in order to speed up the solution of divergences of a priority nature.</p> <p>In January 2020, the following decisions were rendered in the ACP case records in reference: (i) decision that granted the extension of the deadline for statement on the hiring of Technical Advisors by January 29, 2020 at 6:00 pm; (ii) decision that has granted the request made by Samarco and Vale and has determined the immediate dispatch of an official letter to ANM, determining the lifting of judicial encumbrances that from time to time fall on the mining concessions held by the defendants; (iii) determined the service of summons upon defendants to comment on the contracting of technical advisory services to those affected by January 17, 2020.</p> <p>Furthermore, considering that, at the hearing held on October 15, it was established the obligation of the parties involved to submit to the court the thematic axes considered as priorities, in order to expedite the execution of the reparation and indemnity programs, on January 7, 2020, the creation of the following thematic axes was instituted, to be discussed in their own case record, but being linked to the case record of this action:</p> <p>- Priority Axis #1: Extra and intra-gutter environmental recovery - case no.</p>
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	<p>1000242-22.2020.4.01.3800;</p> <ul style="list-style-type: none"> - Priority Axis #2: Human Health Risk and Ecological Risk arising from the collapse - case no. 1000260-43.2020.4.01.3800; - Priority Axis #3: Resettlement of Gesteira in Barra Longa - case no. 1000321-98.2020.4.01.3800; - Priority Axis #4: Infrastructure and Development - case no. 1000398-10.2020.4.01.3800; - Priority Axis #5: Operational return of the Risoleta Neves Hydroelectric Power Plant - case no. 1000406-84.2020.4.01.3800; - Priority Axis No. 6: performance and monitoring edition - case no. 1000412-91.2020.4.01.3800; - Priority Axis #7: Registration and Indemnification of those impacted by the collapse - case no. 1000415-46.2020.4.01.3800; - Priority Axis #8: Resumption of economic activities impacted by the collapse - case no. 1000417-16.2020.4.01.3800; - Priority Axis #9: Water Supply for Human Consumption - case no. 1000462-20.2020.4.01.3800; <p>On January 31, 2020, a decision was issued determining the creation of Priority Axis no. 10, which aims to discuss the Contracting of Technical Advisors in favor of those impacted by the Collapse (case no. 1003050-97.2020.4.01.3800).</p> <p>On April 03, 2020, the States of MG and ES filed a petition requesting the parties to release to the States the amount of R\$ 100,000,000.00, deposited at the disposal of the Court, in proportion to the extent of socioeconomic damage.</p> <p>On April 28, 2020, Vale certified the deposit of R\$ 60,460,721.71, as partial advance of compensatory measures to the damages resulting from the overload of the State Health Systems caused by the failure. On the same date, AGU, representing the ANM, presented a statement in the case records suggesting that Vale check with the ANM any pending matters of an administrative nature for the lifting of encumbrances falling under Vale's mining rights. To that end, it indicated administrative proceedings no. 00786.000089/2020-76 and 00786.001036/2018-58.</p> <p>On May 21, 2020, the Renova Foundation requested that the following claims be granted: a) the amount of R\$ 150 million, to be used in actions to fight COVID-19 by the States of Minas Gerais and Espírito Santo, be considered as anticipation of compensatory measures for the impacts resulting from the breach of the Fundão Dam that do not involve reparation, under the terms of Clause 232, § 1, of the TTAC; b) the aforementioned financial resources are made available through a judicial deposit, in order to ensure that the amounts are used only in the fight against COVID-19 and its impacts, with different allocations being forbidden; c) the financial resources are made available to the states of MG and ES for actions in the municipalities affected by the collapse of the Fundão dam, which can be accessed through specific and detailed projects, with gradual disbursements linked to proof of compliance with the steps of the projects/demands, as detailed specification previously submitted and after ratification; d) the details of approved projects and the use of resources are made available on the transparency portals of the respective state governments; and) the Accounting Court be asked to audit the expenditures incurred in the execution of the approved projects.</p> <p>On May 27, 2020, the Renova Foundation requested that "the costs to be incurred by the Renova Foundation in the actions previously described to fight the pandemic, as in the case of other similar situations, should be considered to be of a compensatory nature in relation to the effects of the collapse of the Fundão dam and, therefore, discounted from the obligations provided for in the TTAC."</p> <p>On June 5, 2020, the Public Defender's Offices made a statement about the petition attached by the Renova Foundation on May 27, 2020. On the same date, the States of Minas Gerais and Espírito Santo required the Renova Foundation to report on the amount spent on compensatory actions, with information on the actions, dates and individualized amounts spent, in addition to the total amount used, two States reserving the right to express an opinion on Renova's proposal after said rendering of accounts. On the same date, the Federal Prosecution Office made a statement about the petition attached by the Renova Foundation on May 27, 2020.</p> <p>On November 8, 2020, a decision was issued determining the opening of a</p>
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	<p>specific procedure for priority axis no. 11, related to the measures of the Integrated Agenda. On July 9, 2020, AGU requested that SPECIFIC REMEDY IN EXECUTION OF THE JUDGMENT against the Renova Foundation be granted, so that: a) the Renova Foundation be ordered to suspend, pending a decision by the Court, or the CIF, after the Court is aware, always preceded by the due legal process and full merit analysis, the effective cancellation of Emergency Financial Aid ("AFE"); b) if the specific remedy requested is granted, the Renova Foundation be ordered to report, on its website and by public means, the suspension of the cancellation, referring to the judicial decision, in order to stop the social panic in the affected areas; c) the Renova Foundation be ordered to present the reasons and grounds for having unilaterally adopted the initiative to cancel the AFEs; d) a transition regime be established with the application of progressive effects, in favor of legal certainty and predictability of those affected, for any and all acts that reach Renova's current or future positions regarding Programs with individual or collective effects; On July 12, 2020, a decision was rendered granting the injunction required by the AGU on July 9, 2020.</p> <p>On July 24, 2020, an order was issued in the records ordering the opening of specific proceedings, that is, Priority Axis 12 (no. 1029406-32.2020.4.01.3800), to address IEF Ordinance No. 40/2017, which provides for the prohibition of fishing in the basin of Rio Doce River, within the limits of the State of Minas Gerais. In this regard, it was determined the production of expert evidence for the purpose of assessing the current situation of the biodiversity of aquatic fauna (ichthyofauna) in the stretch of the Rio Doce River located in Minas Gerais and, consequently, generating technical and scientific information to support decision-making regarding the restriction of fishing for native species in the region, due to the collapse of the Fundão dam. The expert evidence is being produced by AECOM.</p> <p>On August 4, 2020, the MPF, DPMG, DPES and DPU filed a motion for clarification of the decision that has suspended the cancellation of the AFE.</p> <p>On August 24, 2020, the requests made by the State of MG were granted and the immediate transfer of the amounts of R\$ 2,762,500.00 and R\$ 3,010,000.00 was determined for the full payment of the lung ventilators. Up to this date, the amount of R\$ 16,832,500.00 has been raised in favor of the State of Minas Gerais, related to the acquisition of lung ventilators. On November 4, 2020, the Municipality of Mariana requested that all measures taken, consistent with the subject matter of the dispute, be previously reported to the Municipality and that it be accepted as an assistant co-party.</p> <p>The execution of terms and agreements for conducting courses and teaching programs, delivered by FGV, to its employees has been authorized; rejecting the motion for clarification of the MPF, DPU, DPE/MG and DPE/ES, regarding the alleged contradiction between the subsistence and artisanal categories; partially accepting the motion for clarification, just to establish that any and all cuts (or suspensions) of AFE mandatorily demand, on the part of the Renova Foundation, the observance of the due legal process, consisting of prior notification, the adversary proceeding and fair hearing, followed by individualized and substantiated decision, specifying in detail the reasons that led to the conclusion;</p> <p>On January 27, 2021, the State of Minas Gerais submitted and requested ratification of the settlement between the Renova Foundation and the IEF. On the same date, the companies requested the rejection of the Mariana Municipality's request to join the lawsuit;</p> <p>On February 11, 2021, the State of Espírito Santo requested the transfer of R\$ 167,753.95 to the Health Fund. Up to this date, the amount of R\$ 66,155,311.77 has been raised in favor of the State of Espírito Santo, related to works/adjustments of Silvío Avidos Hospital and Maternity – HMSA, acquisition of hospital equipment for HEUE – State Emergency Hospital, renovation works and physical adaptations carried out at Silvío Avidos Hospital and Maternity – HMSA and the General Hospital of Linhares – HGL.</p> <p>On February 16, 2021, AGU attached a petition alleging that the Interfederative Committee and IAJ-AGU had received information that the Renova Foundation, upon the determination of Vale and BHP, would have canceled or reduced the payment of several emergency aid in Barra Longa, Santa Cruz do Escalvado and Chopotó District (Ponte Nova).</p> <p>On March 5, 2021, AGU petitioned to withdraw the request regarding the</p>
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	<p>unilateral cancellation of the AFE. On the same date, a decision was issued granting Samarco's request and authorizing the signing of terms and agreements for courses and educational programs, delivered by FGV, to its employees and authorizing the adoption of the necessary measures for the purposes of implementing and operating SAMU Leste/Vale do Aço.</p> <p>On March 10, 2021, AGU requested the establishment of a new Compliance Axis for TTAC and TAC-GOV, aimed at remodeling and improving the Renova Foundation. On the same date, a decision was issued granting the request and requiring the opening of specific proceedings for Priority Axis 13 (1011729-52.2021.4.01.3800). The companies filed a motion for clarification in relation to said decision, requiring the inclusion of the CIF in the scope of the preliminary diagnosis to be carried out by Kearney, in view of the integrated and symbiotic management of the work of the Renova Foundation not only by its internal instances, but by the external management performed through the CIF, in accordance with the TTAC and the Governance TAC. It is awaiting the decision on this motion for clarification. The MPF filed an interlocutory appeal against that decision.</p> <p>On March 22, 2021, the MPF requested the suspension of case no. 1016756-84.2019.4.01.3800 (former no. 0023863-07.2016.4.01.3800) until April 27, 2021, in order to initiate, in the period, the arrangements for a possible renegotiation of the measures for full reparation of socio-economic and socio-environmental damages arising out of the collapse of the Fundão Dam.</p> <p>The institutions have promoted several measures against the judge and the Court – such as Writ of Mandamus and Complaints – claiming the existence of alleged decisions manifestly null and harmful to those affected, as well as omissions by the Court of the 12th VFBH to consider petitions filed by the Justice Institutions and consideration of requests in the various priority axes. The key measures in this regard are:</p> <ul style="list-style-type: none"> - 1008894-45.2021.4.01.0000 - MPF Writ of Mandamus, MPMG and Public Defender's Offices: Aiming, on an interlocutory relief, the immediate consideration of the statements submitted by the Petitioners, as well as by the Companies and the Renova Foundation regarding dissent in relation to the methodological proposal presented by the Getúlio Vargas Foundation ("FGV") for the execution of primary data collection work related to the health of those affected (Work Front 5 – Damage to Health Based on Primary Data). - 1035333-30.2020.4.01.0000 - Writ of Mandamus (Axis 7): The MPF filed a writ of mandamus, "with a preliminary injunction against repeated abusive conduct practiced by the judges of the 12th Federal and Agrarian Court of the Judicial Section of the State of Minas Gerais, resulting in the proliferation of proceedings and decisions manifestly null and harmful to those affected by the failure of the Fundão dam", due to decisions issued under secrecy of justice in the execution of judgments under Axis 7 and/or without prior testimony of the MPF. - 1008884-98.2021.4.01.0000 - Writ of Mandamus (Axis 8): MPF, MPMG and Public Defender's Offices – Aiming, on an interlocutory relief, the immediate consideration of the petition filed by the Petitioners, on November 25, 2020, in which they requested the maintenance of silage delivery until the final examination of the matter by the 12th Federal Court of Belo Horizonte to the affected persons who requested the receipt, but whose registration was not carried out, a measure that would be essential to ensure fundamental rights belonging to those affected (rural owners) located in several territories affected by the Fundão dam failure. - 1008874-54.2021.4.01.0000 – Writ of Mandamus (Axis 3) – MPF, MPMG and Public Defender's Offices: They claim that, since July 2020, the requests made in the incident of Priority Axis No. 3 (1000321-98.2020.4.01.3800) are awaited. They argue that the judge would be acting with "partiality and selectivity" by not appreciating their statements in that Axis. - 1008899-67.2021.4.01.0000 – Writ of Mandamus (Axis 7) MPF, MPMG and Public Defender's Offices – AFE: They require the granting of interlocutory relief on a preliminary basis with the objective of
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	<p>compelling the Renova Foundation, under penalty of daily penalties, to refrain from interrupting or ceasing the payment of the present and future Emergency Financial Aid (AFE) for those affected who decided to adhere to the new indemnity system as a consequence of signing a full and final settlement, among other claims.</p> <p>- 1008877-09.2021.4.01.0000 - MP and Public Defender's Office Complaint (Axis 02) - Require the granting of an injunction to determine to the Judge of the 12th Federal Court of the Judicial District of Minas Gerais material compliance with the decision by the trial court handed down by the Honorable Federal Appellate Judge Daniele Maranhão in the case record of the interlocutory appeal no. 1010332-43.2020.4.01.0000, notifying the companies to immediately continue the reparation process, based on the studies previously prepared by AMBIOS and Grupo EPA Engenharia e Proteção Ambiental for assessment of human health and ecological risks.</p>
Chance of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	<p>The process is relevant by virtue of matter and value.</p> <p>The parties entered in the TTAC, through which it was agreed to carry out programs needed for the environmental and social restoration of the areas impacted by the accident. For more information about the TTAC, see item 4.7 of this Reference Form. In addition, the Preliminary Consent Decree I was signed with respect to the guarantees and the TAC Governance that extinguished this lawsuit. For more information, see item 4.7 of this Reference Form.</p>
Notes	Not applicable.

6) Case No. 0007284-81.2016.4.01.3800 (former No. 0197171-92.2015.8.13.0521)	
Court	12 th Federal Court of BH (2 nd Civil Court of Ponte Nova - TJMG)
Instance	Trial Court
Filed on	November 17, 2015
Parties to the proceeding	Núcleo Assessoria Comunidades Atingidas Por Barragens (NACAB) ("Plaintiff"); Samarco, Vale and BHPB (together "Defendants")
Amounts, goods or rights involved	Amount in dispute of BRL 119,568,504.25, which updated until December 2020, represents BRL 153,895,639.56. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On November 17, 2015, the Plaintiff filed a public-interest civil action requesting an injunction to force the Defendants to submit and execute, for the region of the municipalities of Santa Cruz do Escalvado, Rio Doce and Barra Longa, along the Carmo and Doce rivers: (i) recovery programs for the permanent preservation areas and springs affected by the mud that spilled from Samarco's failed dam; and (ii) a database of impacted people and the respective damage, including plans for immediate social assistance and compensation. In other specific areas, the demand was to carry out long-term monthly monitoring and genetic population studies of the rivers' aquatic fauna, and then submit an emergency recovery program. A request was also made to force the Defendants to pay compensation to all the people impacted by the accident, as well as environmental damage, totaling BRL100,000,000.</p> <p>On November 18, 2015, a sentence was issued, assigning the case to the Belo Horizonte Federal Court District.</p> <p>On November 23, 2015, the Plaintiff filed an interlocutory appeal, requesting an injunction against the decision made, a review of the first-instance decision, and the maintenance of the case record with the State Courts. In addition, NACAB requested an interim measure to oblige the Defendants to take several measures in order to remedy the damage caused by the accident. This included the submission, within 30 days, of a recovery program for the aquatic fauna of the Doce, Carmo and Piranga rivers in the municipalities of Santa Cruz do Escalvado, Rio Doce, Barra Longa and Ponte Nova, and the provision of social assistance to victims of the accident, among other things.</p> <p>On November 26, 2015, a decision was issued that postponed the analysis of the request for the injunction until after the analysis of the Defendants' challenge.</p> <p>On December 17, 2015, the rapporteur issued an order convening an</p>

	<p>extraordinary conciliation session at the Minas Gerais Court of Appeals.</p> <p>On January 7, 2016, the Federal Government petitioned in the case record to express its agreement with the decision that ordered the referral of the case record to the Federal Court, in view of its interest in the case.</p> <p>On February 03, 2016, due to the express interest of the Federal government, the case record was sent to the 12th Federal Court, according to article 109, I of the 1988 Federal Constitution ("<u>Federal Constitution</u>").</p> <p>On February 16, 2016, the case record was received by the 12th case Federal Court of the Judiciary Section of Belo Horizonte.</p> <p>On July 22, 2016, a decision was issued, calling for the case to be merged into Public Civil Action 23863-07.2016.4.01.3800, and to suspend the process.</p> <p>On March 27, 2017, a decision was published that, considering the approval granted in cases 697586120154013400 and 238630720164013800, suspended the case until subsequent judgment.</p> <p>On May 30, 2017, the suit was suspended, as per the decision of March 27, 2017.</p> <p>Suspension maintained by decision rendered as of February 05, 2020.</p> <p>On the date of this Reference Form, the action was still suspended.</p>
Chances of loss	Possible
Analysis of impact in the case of losing the suit / Reasons this case is significant to the Company	The amount in dispute demanded by the Plaintiff is BRL100,000,000. However, it should be emphasized that the suit is still on a very preliminary stage, which makes it difficult to perform a more accurate analysis of the damages, in the event of loss.
Notes	Not applicable.

7) 0028358-94.2016.4.01.3800 (former number 0426085-72.2015.8.13.0105)		
Court	12 th Federal Court of the Judicial District of Belo Horizonte (former 7 th Civil Court of Governador Valadares – TJMG)	
Instance	Trial Court	
Filed on	12/14/2015	
Parties	MP-MG (" <u>Plaintiff</u> ") and Samarco and Vale (jointly, " <u>Defendants</u> ")	
Amounts, goods or rights involved	The amount in dispute claimed by the Plaintiff is BRL6,046,597,637.06, which updated by December 2020 represents BRL 7,716,932,222.36. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.	
Main facts	<p>On December 14, 2015, the MP-MG filed this public civil action, through which intends the adverse judgment of the Defendants to adoption of several measures towards the mitigation of impacts resulting from the Fundação tailings dam breach. The Plaintiff motions for, in preliminary injunction, under penalty of a daily fine of BRL 2,000,000.00 Brazilian reais, that the defendants: (i) take steps to and maintain the measures granted by Civil Public Provisional Remedy No. 0395595-67.2015.8.13.0105, which preceded this suit, therefore presenting the same object (as described below in "Observations"),(ii) create and implement and executive project to construct collection stations, bombing and adduction of water from Suaçuí Pequeno and Grande rivers up to the stations of the Serviço Autônomo de Água e Esgoto ("<u>SAAE</u>") (Autonomous Service of Water and Sewage) within 12 months maximum; (iii) provide regularly to SAAE the necessary polymers to treat the water of Rio Doce until the operation of the installations for collection and catchment mentioned above; (iv) install equipment to provisional water collection and catchment of water from Suaçuí Pequeno and Grande rivers, so as to diminish the collection in Doce River, within 45 days maximum; (v) install a water treatment station, with treatment capacity of 120 liters per second, for catchment in the Capim stream, within a maximum period of 45 days (vi) all their accounts are frozen to the minimum amount BRL 100,000,000.00 Brazilian reais, and (vii) a confirmation of the preliminary injunction and indemnification for collective mental distress claim amounting to BRL 5,000,000,000.00 Brazilian reais.</p> <p>On December 17, 2015, there was a judgment partially granting the preliminary injunction to revert the burden of proof and ruling that the Defendants shall bear the expenses for monitoring the quality of the waters of Rio Doce and of</p>	

	<p>the fresh water provided to the population, under penalty of a daily fine of BRL2.000.000,00 Brazilian reais. In addition, it was determined that the preliminary injunction granted in the case record No. 0395595-67.2015.8.13.0105, including the determination of water delivery in the residences, within 48 hours, as well as the presentation of a logistics regarding the delivery of water in the residences, within 10 days, should be fulfilled.</p> <p>The MP-MG filed an interlocutory appeal against the preliminary decision, moving the interlocutory relief of appeals, for the adoption of provisional and emergency remedies within the regions impacted by the accident. On February 17, 2016, there was the judgment suspending the processing of the mentioned interlocutory appeal. Thus, the interlocutory appeal was suspended until the entry of the final judgment in the case record of the Positive Jurisdiction Dispute filed by Samarco, aiming at settling the discussion on the jurisdiction of Federal or State Court to judge matter regarding the city of Governador Valadares. The dispute originated from the fact that there are two Public Civil Lawsuits regarding the distribution and drinkability of the water in Governador Valadares, one pending before federal court and the other before state court. The Jurisdiction Conflict was not judged, however, there is a judgment that as long as there is not a final judgment, urgent measures shall be taken by the federal court.</p> <p>On May 10, 2016, the following were included in the case record (i) a decision by the trial court, in appellate court, rendered in the case record of the interlocutory appeal filed by the MP-MG, from January 28, 2016, establishing the submittal of the case record - as well as that of connected appeals - to the 12th Federal Court of the Judicial District of Belo Horizonte; (iii) a motion from the Municipality of Governador Valadares, of February 16, 2016, showing interest in joining the suit as Plaintiff; (iii) official letter from the Judge of the 12th Federal Court of Minas Gerais moving for the inclusion in the case record of a petition from the Federal Prosecution Office (MPF) and decision of its execution, in face of the judgment in the Jurisdiction Dispute that was pending before the STJ.</p> <p>On May 24, 2016, the case was assigned to the 12th Federal Court.</p> <p>On July 04, 2016, there was the answer by VALE filed, arguing lack of interest of acting by the MPMG (Prosecutors Office of Minas Gerais) in face of the measures already implemented by the defendants, as well as the fact that the water quality of rivers has already returned to the same status as previous to the accident. Vale also alleged in its defense the legitimacy to be in the passive pole of the suit, in face of the lack of causal nexus between any action of omission on its part and the accident that happened. Vale also maintains the lack of collective mental distress claim and the impossibility of reversion of the burden of proof.</p> <p>On July 04, 2016, there was also an answer filed by Samarco, o merits reasons similar to the ones alleged by Vale.</p> <p>On March 21, 2017, a joint decision was entered into the case record of cases no. 0069758-61.2015.4.01.3400 and 0023863-07.2016.4.01.3800, <u>approving</u> in part the Preliminary Consent Decree I, only referring to the socio-environmental diagnosis (to be performed by the Instituto de Tecnologia para o Desenvolvimento - LACTEC and diagnosis and monitoring of programs in course (to be performed by Ramboll Brasil Engenharia and Consultoria Ambiental Ltda., granting the suspension of other suits connected to them, in order to avoid conflicting judgments.</p> <p>On March 29, 2017, an order was published considering the probate decision rendered in the scope of lawsuits n: 69758-61.2015.4.01.3400 and 23863-07.2016.4.01.3800, suspending the feat until further legal resolution.</p> <p>On January 23, 2020, after the restart of the proceeding due to the request for copies, the proceeding was once again suspended.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	MPMG attributed the value of BRL5.100.000.000,00 (Brazilian reais) to the suit. However, it should be emphasized that the suit is still on a very preliminary stage, which makes it difficult to perform a more accurate analysis of the damages, in the event of loss.

Notes	Public Civil Injunction No. 0395595-67.2015.8.13.0105 refers to preparatory provisional remedy for the above described suit 0426085-72.2015.8.13.0105. Such suit was filed on November 10, 2015 by the MPMG against Samarco, before the 7 th Civil Court of Governador Valadares – TJMG and later sent to the Court. Judge of the 12 th Federal Court of Belo Horizonte.
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8) Case No. 0043356-50.2015.8.13.0400	
Court	2 nd Civil Court of the County of Mariana - (returned from the 12th Federal Court of the Judicial District of Belo Horizonte)
Instance	Trial Court
Filed on	12/10/2015
Parties	MP-MG ("Plaintiff") and Samarco, Vale and BHPB (jointly, "Defendants")
Amounts, goods or rights involved	The amount in dispute claimed by the Plaintiff is BRL2,343,788,000.00, which updated by December 2020 represents BRL 2,410,639,865.12. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On December 10 2015, the MP-MG filed a public civil action, through which it motions, under penalty of a daily fine amounting to BRL 200,000.00 (Brazilian reais), the adverse judgment of the Defendants to the (i) adoption of several measures oriented to the mitigation of impacts from the Fundão tailings dam breach, (ii) implementation of a social communication program on the activities performed, (iii) provision of health and education assistance to those impacted, and (iv) support in retrieval of assets, animals and others; retrieval of tombs and mortal remains existing in places impacted, among others.</p> <p>The main motion aims at the conversion of the preliminary injunction into a definitive one, so as to allow the whole reimbursement of the alleged individual material damages and mental distress suffered by those impacted by the accident and payment of a Reparation Plan, which allows the social and environmental recovery in face of the damages verified resulting from the accident at the Fundão tailings dam. The MP-MG also requires the resettlement and economic and social restructuring of the impacted families, and that the effects of the decision handed down in injunction No. 0039891-33.2015.8.13.0400, which preceded this demand and in which the freezing of the amount of BRL 300,000,000.00 was granted.</p> <p>On December 16, 2015, there was an order postponing the appreciation of the preliminary injunction for after the settlement hearing. On the same date, the MP-MG moved for the amendment of the complaint so that it includes new motions, among them: (i) the granting of interlocutory relief, (ii) payment of BRL10,000.00 as a financial contribution to the victims (iii) identification and reestablishment of the sporting groups of the affected communities and of the other leisure practices developed by the affected people, (iv) increase and pay the amount of assistance to the victims, (v) pay a financial aid to the victims that have not been directly impacted in their income, and (vi) submit an immediate and concrete action plan, among other measures.</p> <p>On December 23 2015, a hearing was held among the parties, approved by the judge, with discussions on: (i) the allocation of families in rented houses, observing that, regarding this matter, Samarco said that it had already fulfilled spontaneously part of said measure; (ii) emergency support, and Samarco said that it was already paying a minimum wage to each person of the family who lost their income due to the accident, accrued by 20% by dependent member of the family, in addition to the amount corresponding to a food parcel per family and having undertaken to support the referred to monthly amount for twelve months, according to the conditions of the term of the hearing; (iii) payment by Samarco of (a) BRL100,000.00 by family unit that lost family members in the event, and (b) BRL10,000.00 as indemnification advancement, per family unit, for those families that suffered physical displacement, that is, had their houses destructed, regardless of having lost income from such real estate; (iv) accountability by Samarco in court of the amount spent on indemnifications and recovery of the area by January 31, 2016. A permit amounting to BRL 5,500,000.00 was issued for the payment of the values mentioned above, except for the monthly support.</p> <p>On January 20, 2016, there was a second hearing among the parties, confirmed by the judge, where the following was discussed, in addition to individual cases: (i) the advance of BRL10,000.00 to those persons impacted by the accident, and Samarco undertaking to advance the indemnification in said amount, as settled in the previous hearing, for those individuals that lost their real estate erected in their property, which were not used as their regular living place,</p>

	<p>according to the terms settled at the hearing; (ii) the indemnification for the loss of vehicles, and Samarco undertaking to indemnify individuals that lost their vehicles; (iii) the release permit, through which Samarco agreed to release BRL1.0 million to implement the aforementioned actions.</p> <p>On February 17, 2016, due to the express interest of the Federal government, the case record was sent to the 12th Federal Court, according to article 109, I of the Federal Constitution. Pending trial.</p> <p>On March 28, 2016, Vale filed an answer, moving for the dismissal of the suit, without appreciation of merits, due to the lack of interest in the suit by the Plaintiff. Considering the possibility that the suit is not dismissed without resolution of merits, Vale also moved for the judgment of the inappropriateness of the motions contained in the complaint; in addition to the adverse judgment of the Plaintiff to the payment of legal costs and attorneys' fees.</p> <p>On July 15 2016, the Federal Prosecution Office filed a petition moving for the decline of the jurisdiction of the Federal Court to the State Court, since: (a) in the actual Interlocutory Appeal that ordered the remittance the Appellate Judge reconsidered his decision; (b) according to decision by the STJ, on June 22, 2016, on the Jurisdiction Dispute No. 144.922/MG, referring to the suit on the accident in Mariana, the Federal Justice would have jurisdiction for the demands of diffuse and transindividual rights, as well as socioeconomic and socio-environmental demands, while the State Court would have jurisdiction on individual homogeneous suits, such as the ones of this suit, referring to personal damages of families impacted by the Fundão tailings dam breach.</p> <p>On August 23, 2016, at the 12th Federal Court of the Judicial District of Belo Horizonte/MG, a judgment was awarded establishing the devolution of the case record to the Judge of the 2nd Civil, Criminal and Criminal Execution Court of the County of Mariana/MG.</p> <p>On September 12, 2016, the MP-MG filed a motion, at the 2nd Court of the County of Mariana, moving for the following, among others: (a) the reactivation of the Lawsuit at the State Court; (b) attachment of the technical assistance process to the case record of the main lawsuit and to the provisional remedy; (c) release of the amount of BRL3.5 million, through legal order, to Cáritas Brasileira Regional MG, a non-governmental organization, responsible for starting the works of technical assistance to the victims; (d) inclusion in the case record of several documents, including the receipt of the deposit of BRL500 thousand by Samarco; (and) assignment of a new settlement hearing. On November 28, 2016, there was a settlement hearing, when there was the ratification of a settlement among the parties.</p> <p>On April 07, 2017, a settlement hearing was held at the 2nd Civil Court of Mariana, Minas Gerais.</p> <p>On May 15, 2017, the Public Prosecution Office filed a motion for subpoena of the defendants so that they, within 5 days, would: (i) reply on their agreement regarding the analysis methodology of the events of noncompliance, (ii) include into the case record the reply to the events of noncompliance, (iii) include into the case record copies of the deeds of the real estate properties purchased for the resettlement of Bento Rodrigues and Paracatu, referring to case No. 0400.15.004335-6.</p> <p>On July 19, 2017, SAMARCO filed a motion for the proposal of a methodology of submittal of response to the affected people, who direct their questions to SAMARCO/Foundation.</p> <p>On February 6, 2018, a settlement hearing among the parties was held, where there was an agreement on the reparation guidelines referring to the right of housing of the impacted by the Fundão tailings dam breach, through a partial settlement.</p> <p>On March 27, 2018, a settlement hearing among the parties was held.</p> <p>On June 26, 2018, the Public Prosecution Office filed a motion, asking for the raising of the amount of BRL5,477,850.04, which shall be used to continue the work of registration of all victims of Mariana, due to the Fundão tailings dam breach, which was granted on May 14, 2018.</p> <p>On May 3, 2018, Vale, Samarco and BHP filed a motion in response to the</p>
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	<p>motion for the raising of funds filed by the Public Prosecution Office, so that such measure would depend on the submittal of specific documents by Cáritas — report on the progress of the works and accountability.</p> <p>On August 21, 2018, a conciliation hearing was held, setting a deadline of 10 days "for companies to express their opinion on the proposal for a generic indemnification agreement presented by the MPMG".</p> <p>On September 27, 2018, there was a summons to the parties to express their opinion on documents joined by the MPMG (proposal for Indemnification Transaction Agreement)</p> <p>On October 2, 2018, a new conciliation hearing was held and the transaction approved.</p> <p>On November 29, 2018, joint petitions were joined together with a proposal for a Transaction Agreement and a statement that those who have already expressed their interest in negotiating with the Renova Foundation may contact them for final indemnification negotiations.</p> <p>On February 19, 2019, an order was issued that approved the agreement entered into by the parties, determining the issuance of a license to collect the amount on behalf of Rodrigo Ires Vieira, representative of Cáritas Brasileira Regional Minas Gerais.</p> <p>On March 20, 2019, the MPMG requested FGV to present in detail the scope of its socio-economic diagnosis of the damage occurred in Rio Doce Watershed.</p> <p>Hearing was held on June 27, 2019, an opportunity at which it was stated that 1) There will be a meeting of those affected from Bento Rodrigues, to decide on the readjustment of collective resettlement, on the location of the Sewage Treatment Plant, the readjustment of projects and the destination of vacant lots, the result of which will be brought at the next hearing; 2) The defendant companies will have a common period of 15 days to comment on the compensation proposals for collective and family resettlements, presented by the Public Prosecution Office at this hearing; 3) The defendant companies will have a period of 5 days to attach the updated schedule for the resettlement of those affected (family, community and reconstructions); 4) As of this date, Cáritas Brasileira will attach to the case record of those affected the instrument of refusal of inspection, or the reason why such inspection was not carried out. For previous registrations, the defendant companies, through the Renova Foundation, may request the instrument of refusal of inspection or the reason why such inspection was not carried out, directly to Cáritas Brasileira, which will have a period of fifteen (15) days for the response; 5) The Public Prosecution Office presented the following agenda for the next hearing: Analysis of the milestone and negotiations for the new family nuclei.</p> <p>A hearing was held on August 6, 2019, it was stated that 1) The Public Prosecution Office informed the defendant companies of the result of the Meeting of those affected, of the change in the location of the Bento Rodrigues collective resettlement ETE, in accordance with proposal "10", under the terms of the SEMAD representative; 2) Cáritas must deliver the list of those affected who wish to relocate or readjust the lots of the Bento Rodrigues collective resettlement by September 5, 2019, directly to the Renova Foundation, without prejudice to the addition of those affected who are identified later; 3) The defendant companies must submit, at the next hearing, a counterproposal of an agreement related to the resettlement of those affected, addressing the change in the location of the ETE; 4) The Public Prosecution Office suggested as the agenda for the next hearing, the milestone for creation of new family nuclei.</p> <p>A hearing was held on September 17, 2019, it was stated that 1) The matter regarding the reallocation or readjustment of Bento Rodrigues collective resettlement lots will be discussed at a specific hearing, with individual analysis of the cases presented by Caritas Brasileira. 2) Those affected will analyze the proposal submitted by the defendant companies with regard to compensation for missing, tested area and slope for families in the collective resettlement of Bento Rodrigues and Paracatu, and must submit a response by the next hearing; 3) Those affected will analyze the proposal submitted by the defendant companies regarding the deadline for completion of the resettlement of the communities of Bento Rodrigues and Paracatu and family resettlement, and must submit a response by the next hearing; 4) The defendant companies</p>
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	<p>undertake to assess and submit a response to the proposal for compensation and conversion related to family resettlement, within fifteen (15) days, in the case record and directly to the Public Prosecution Office.</p> <p>On October 8, 2019, Samarco commented on item 4 indicated at the hearing held on September 17, 2019, striving to set the compensation and conversion criteria under the terms set out by the Renova Foundation, in line with the terms of the agreed resettlement guidelines and with the applicable civil legislation, within the principles of reasonableness.</p> <p>On October 22, 2019, Samarco clarified the situation and destination of one of the resettlement plots, as determined at the hearing, and the relevant clarifications were provided on the list of alleged dissatisfactions with collective resettlement plots.</p> <p>On January 7, 2020, in the records of Enforcement of the Award III (0041497-28.2017.8.13.0400), the magistrate established the deadline for fulfilling the obligation to repair the right to housing (collective resettlements, family and reconstructions) to affected by the bursting of the Fundão dam, changing the date from August / 2020 to 02/27/2021, under penalty of a daily fine of R \$ 1,000,000.00. This decision was the subject of an appeal which is pending judgment by the Court of Justice of Minas Gerais.</p> <p>On July 20, 2020, an order was issued in the ACP case record ordering the defendant companies to make payments of indemnities due to certain persons, pursuant to the collective agreement approved in this case and the out-of-court agreement approved in the pre-procedural sector of CEJUS, within 15 days.</p> <p>On August 24, 2020, an order was published that determined the issuance of a permit for the transfer of the amounts deposited in court in the name of those affected.</p> <p>On November 5, 2020, the companies petitioned for the issuance of an official letter to Caixa Econômica Federal to open savings accounts in the name of the minors listed in a spreadsheet presented, considering the judicial and extrajudicial agreements the determination of transfer of deposits in court of indemnity amounts made for the benefit of those affected who have completed the age of majority and have open bank accounts, and the determination to transfer the updated amount of BRL 740,000.00 deposited in court to the Renova Foundation's bank account.</p> <p>On May 5, 2021, the MPMG requested in the Enforcement of the Award III (0041497-28.2017.8.13.0400) the provisional execution, by means of a judicial deposit, of the fine fixed in court in the amount of R \$ 1,000,000.00, for day of delay in the delivery of housing, as of 02/27/2021, totaling up to that moment the amount of R \$ 76,901,628.19.</p> <p>The companies present on a monthly basis an update of the Cáritas Dossiers for the calendar month.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	<p>The amount in dispute claimed by the MPMG is of BRL2,000,000,000.00. The terms of the agreement, however, are illiquid, which makes it difficult to specify the exact figures involved.</p> <p>As a result of the proceeding, individual and collective judgments were sent to the same Court.</p>
Notes	Not applicable.

9) Case No. 1012518-22.2019.4.01.3800 (formerly No. 0273073-38.2015.8.13.0105)	
Court	12th Federal Court of the Judicial District of Belo Horizonte (origin: 5 th Federal Court of Governador Valadares - Court of Appeals of the State of Minas Gerais ("TJMG"))
Instance	1 st instance
Filed on	12/28/2015
Parties to the proceeding	MP-MG ("Plaintiff") and Samarco, Vale, Serviço Autônomo de Água and Esgoto ("SAAE", and, jointly with Samarco and Vale, "Defendants")
Amounts, goods or rights involved	Amount in dispute claimed by the Plaintiff of BRL 1,000,000.00, which, updated until December 2020, represents BRL 1,276,243.71. Due to the subject matter and the current stage of the suit, the Company understands that the amount involved is incalculable, in a possible adverse judgment.

Main facts	<p>On December 23, 2015, o MP-MG filed a civil lawsuit aiming at the adverse judgment of the Defendants (i)to submit a management plan for the solid residues from the water treatment stations in the municipality of Governador Valadares, with the adequate final destination of those residues; as well as (ii) to abstain from allocating, in any way, residues from the water treatment in any water course or <i>in natura</i>, until the implementation of the management plan.</p> <p>On December 25, 2015, there was a judgment granting the motioned preliminary injunction, establishing that the Defendants should submit a solid residues management plan on water treatment stations of the Municipality of Governador Valadares and that those should abstain to allocate residues from the water treatment in any water course <i>in natura</i> or in opencast until the implementation and operationalization of the mentioned plan, establishing a daily fine in the event of non-compliance and establishing the reversion of the burden of proof.</p> <p>Against this decision, Samarco and Vale filed an interlocutory appeal, which was granted a partial supersedeas.</p> <p>On January 29, 2016, Vale filed the answer alleging being legitimate party to be on the passive pole of the complaint, since SAAE is the single responsible for the public supply of water in Governador Valadares. Due to this, it moved for the dismissal of the suit, without appreciation of merits, due to the lack of interest of action by the Plaintiff. Considering the possibility that the suit is not dismissed without resolution of merits, Vale also moved for the judgment of the inappropriateness of the motions contained in the complaint; in addition to the adverse judgment of the Plaintiff to the payment of legal costs and attorneys' fees.</p> <p>On February 22, 2016, SAAE filed a motion for the judgment of inappropriateness of the suit, so that the obligation to give final destination to the mud extracted after the water treatment be attributed to Vale and Samarco.</p> <p>On May 05, 2016, o MP-MG filed impeachment to the answers submitted by the defendants.</p> <p>On May 17, 2016, there was an order subpoenaing the defendants to indicate the evidences they intend to produce.</p> <p>On July 05, 2016, Vale, Samarco and BHPB filed a motion in the case record for the production of additional documentary and expert evidences.</p> <p>On September 20, 2016, Samarco filed a motion into the case record for the submittal of the suit to the 12nd Federal Court of Belo Horizonte.</p> <p>On November 1st, 2016, the appellate decision was included in the case record, accepting the injunction of non-jurisdiction of the 5th Civil Court of the County of Governador Valadares, ordering the remittance of the case record to the 12th Federal Court of Belo Horizonte. Then, the MP-MG had right to see the case record.</p> <p>On March 27, 2017, the appellate decision was included into the case record regarding the interlocutory appeal No. 0040043-83.2016.8.13.0000, filed by VALE, accepting the injunction mentioned, to order the submittal of the case record to the 12th Federal Court of the Judicial District of Belo Horizonte.</p> <p>On May 31, 2017, SAMARCO motioned for the submittal of the case record to the Federal Court, notwithstanding the granting of supersedeas to the special appeal submitted by the Public Prosecution Office, motioning for the amendment of the appellate decision that recognized the jurisdiction of the 12th Federal Court of Belo Horizonte to judge the suit.</p> <p>On March 26, 2018, an order was issued that (i) granted the requested expert evidence and appointed the expert of the judgment, (ii) ordered the subpoena thereof to, in case of acceptance, submit a proposal for fees within 05 days; (iii) after the submittal of the proposal, determined the subpoena of the defendants to deposit the expert fees within five days. The decision did not examine the requests regarding the injunction.</p> <p>On March 07, 2019, an order was issued, determining the remittance of the case record to the 12th Federal Court in Belo Horizonte. On May 10, 2019, there</p>
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	<p>was a definitive archiving and the case record was sent to the competent court.</p> <p>On May 27, 2019, the process was reactivated and a merely administrative order was issued, informing the impossibility of assigning the case record of the PJE, with the assignment returning from the Federal Court to the State Court. Thus, the case record returned for arrangements (scanning).</p> <p>On August 7, 2019, an order was issued by the substitute judge of the 12th Federal Court in Belo Horizonte, determining that it was its jurisdiction, as it is an action related to the accident.</p> <p>On October 3, 2020, a decision was handed down determining the stay of the proceedings until further decision and binding to the case record No. 69758-61.2015.4.01.3400 (PJE 1024354-89.2019.4.01.3800).</p>
Chance of loss	Possible
Analysis of impact in the case of losing the suit / Reasons this case is significant to the Company	<p>The Public Prosecution Office alleges that the accident of the Fundão tailings dam impacted directly the water supply in the Municipality of Governador Valadares and intends to perform a continuous evaluation of the drinkability of the water supplied in that locality.</p> <p>The action is still at a very initial stage in order to evaluate the impacts. Notwithstanding the above, the Company also considers the suit relevant on account of the subject discussed.</p>
Notes	Not applicable.

10) Case No. 1:15-cv-09539	
Court	New York Federal Court
Instance	United States District Court for the Southern District of New York
Filed on	07/12/2015 (<i>First Complaint</i>) and 29/04/2016 ("Amended Complaint").
Parties to the proceeding	Alameda County Employees' Retirement Association and Orange County Employees Retirement System ("Plaintiffs") and Vale S.A., Murilo Pinto de Oliveira Ferreira, Luciano Siani Pires and Gerd Peter Poppinga ("Defendants").
Values, assets or rights involved.	Final agreement approved by the Judgment in the total amount of USD25.0 million, with the dismissal of the action.
Main facts	<p>Vale and some of its executives were considered defendants in class actions referring to securities before the New York Federal Court, moved by investors holding <i>American Depositary Receipts</i> issued by Vale, base of the American federal law on securities (<i>U.S. federal securities laws</i>). In legal suits it is alleged that Vale made false and deceitful affidavits or did not divulge the risks and dangers of the operations of the Fundão tailings dam of Samarco and the adequacy of the related programs and procedures. The plaintiffs did not specify a value for the alleged damages, in these suits, they have only motioned for the adverse judgment of the defendants in reimbursing the damages suffered, which shall be calculated during the expertise evaluation stage.</p> <p>On March 7, 2016, the relevant judge in class actions related to securities ordered the consolidation of those actions and assigned lead plaintiffs and attorney.</p> <p>On April 29, 2016, the leading plaintiffs of the action motioned for a complaint amended and consolidated, which shall be the complaint in the suit.</p> <p>On July 25, 2016, Vale filed a motion to dismiss the amended and consolidated complaint, alleging basically (i) that the cause to ask from the plaintiffs does not justify a <i>Securities Fraud Claim</i>; (ii) that the plaintiffs did not identify which omissions had been perpetrated by the defendants; (iii) that the plaintiffs did not demonstrated malice from the defendants in swindling the market; and (iv) that the plaintiffs did not impute any illicit act to individual defendants.</p> <p>On March 23, 2017, the Court issued a decision dismissing the suit with respect to most of the claims filed against Vale and the defendant individuals, in addition to judging that all the requests made against the Chief Executive Officer of Vale at the time, Mr. Murilo Ferreira, and concerning the personal liability of control of defendant individuals are extinct. The small part of the suit that remains limited to some declarations regarding the risk mitigation that were part of the Sustainability Report of Vale, in 2013, and isolated declarations regarding Vale's liability for the Fundão tailings dam breach, made during a single telephone conference, in November 2015.</p> <p>On April 06, 2017, a Vale moved for clarifications/reconsideration asking that</p>

	<p>other motions made by the plaintiffs shall be considered extinct.</p> <p>On April 07, 2017, a Vale submitted a schedule proposal for the next measures regarding the action. The parties agreed regarding this schedule and, on April 14, 2017 they had a meeting with the judge in order to establish future term dates.</p> <p>At end of April 2017, the discovery stage began, during which the plaintiffs submitted initial disclosures, asking the submittal of several documents and the referral of persons that may have knowledge of facts or bear documents related to the Fundão tailings dam breach.</p> <p>On May 05, 2017, Vale submitted its Initial Disclosures, with the referral of persons that might furnish documents or render declarations regarding to facts alleged in the lawsuit.</p> <p>During the period from August to December 2018, there were ten depositions of witnesses indicated by the plaintiffs, and the Fact Discovery phase was finalized on December 21, 2018.</p> <p>On April 15, 2019, there was a mediation session determined by the Court, however, it was not possible to reach an agreement. With that, the phase of production of technical evidence ("Expert Discovery") began, with the preparation of technical opinions by the experts of the Parties, as well as the testimony of all experts ("Experts depositions"), and this phase ended in October 2019.</p> <p>On September 27, 2019, the Court denied the motion for class certification, without prejudice.</p> <p>On December 26, 2019, the Court issued a decision stating that the parties had reached the early stages of an agreement.</p> <p>On February 7, 2020, the parties submitted a request for approval of a proposed settlement.</p> <p>On February 22, 2020, the Court accepted the proposal submitted by the parties, preliminarily approving the agreement and also ordered a public hearing to be held on June 10, 2020, in which the terms and final approval of the proposed settlement will be discussed. On June 10, 2020, the final agreement was approved and homologated by the Court, and the 30-day period elapsed without any challenge or appeal, and res judicata occurred. The case has been closed.</p>
Chances of loss	The value of the agreement was fully advanced and will be fully supported by the insurance company, under the terms of the D&O policy, which is why there was no provision for this amount.
Analysis of impact in the case of losing the suit / Reasons this case is significant to the Company.	Eventual loss could result in financial damages and in the image and reputation of the Company. With the final approval of the proposed agreement, the action was dismissed.
Notes	Not applicable.

11) Case no. 0073114-91.2016.4.01.3800 (formerly no. 0000640-06.2016.8.08.0014)	
Court	12th Federal Court of Belo Horizonte (origin: 2nd Civil Court of Colatina – Court of Justice of the State of Espírito Santo)
Instance	Trial Court
Filed on	01/15/2016
Parties to the proceeding	Public Prosecution Office of the State of Espírito Santo (Plaintiff) ("MP-ES") and Samarco Mineração S.A. ("Samarco"), Vale S.A. ("Company" or "Vale"), and BHP Billiton Brasil Ltda. ("BHPB") (together, "Defendants")
Amounts, goods or rights involved	Amount in dispute claimed by the Plaintiff of BRL 2,343,560,742.81, which, updated until December 2020, represents BRL 2,956,073,003.77. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On January 15, 2016, the MP-ES filed a public interest civil action seeking the adverse judgment of Samarco for the payment of diffuse emotional distress, due to the alleged constraints experienced by the population of the municipality of Colatina, due to the rupture of the tailings dam in the city by Mariana. For information on this accident, see item 7.9 of this Reference Form.</p> <p>The plaintiff has filed provisional remedies, through which it intends: (i) to</p>

	<p>freeze the amount of BRL 2 billion in the Defendants' accounts, in order to guarantee future execution; (ii) removal of the fiscal confidentiality of the Defendants; (iii) provision of documentation relevant to the accident; and (iv) communication to the CVM regarding this demand.</p> <p>In this regard, the MP-ES requested the disregard of the corporate entity of the shareholders of Samarco, claiming that, although there is no evidence that Samarco, owner and operator of the Fundão tailings dam, is in a state of insolvency, it could happen.</p> <p>On January 22, 2016, the MP-ES filed an amendment to the complaint, whereby it included as a beneficiary the Municipal Consumer Protection and Defense Fund, in the amount of BRL 2,000,000.00.</p> <p>On January 19, 2016, Samarco filed an answer whereby it argued that measures to protect those impacted by the accident had already been implemented and that the financial resources were being fully used to remediate the damages caused by the accident. In addition, Samarco argued that provisional remedies were not useful to justify their acceptance, and that, in addition, they could jeopardize additional efforts to mitigate the impacts caused by the accident.</p> <p>On February 11, 2016, the decision denying the interlocutory relief requested by the MP-ES regarding the freeze of moneys of the defendants was handed down.</p> <p>On February 17, 2016, the MP-ES filed an interlocutory appeal ("AI") against the decision that denied the provisional remedy, requesting the freezing of BRL 2.0 billion Reais and disregarding of corporate entity of the Defendants, among other measures.</p> <p>On March 10, 2016, the decision that postponed the analysis of the active effect sought by the MP-ES was pronounced, so that, before the decision, the Trial Court Judge was notified to provide information, as well as summoned the Defendants to produce a statement.</p> <p>On March 23, 2016, a decision was pronounced regarding the AI filed by the MP-ES, which maintained the decision that had been appealed. Since it is a decision by the trial court; however, one must await the trial of the appeal by a panel of judges.</p> <p>On April 19, 2016, Vale filed an answer brief to the appeal, requesting its rejection.</p> <p>On April 25, 2016, Vale filed an answer, requesting the judgment of insufficiency of the plaintiff's claims; in addition to the adverse judgment of the Plaintiff ordering the payment of legal costs and fees, in the absence of collective emotional distress to be indemnified.</p> <p>On June 16, 2016, the MP-MG filed an objection to the answers presented by the defendants, reiterating in full the terms of the complaint.</p> <p>On October 3, 2016, an order was issued, attesting to the existence of a positive conflict of jurisdiction regarding claims related to the dispute, and for this reason, determined the subpoena of the MP-MG for statement on the appellate decision.</p> <p>On November 4, 2016, a decision was rendered determining the remittance of the case record to the 12th Federal Court, in compliance with the appellate decision rendered within the scope of the interlocutory appeal No. 000320103.2016.8.08.0014, filed by the MP-MG, which accepted the preliminary argument of lack of jurisdiction raised by the defendants and ordered the remittance of the case record to the 12th Federal Court.</p> <p>On November 23, 2016, the case record was remitted to the 12th Federal Court of Belo Horizonte.</p> <p>On March 29, 2017, a decision was issued that, considering the homologation decision handed down in proceedings 697586120154013400 and 238630720164013800, suspended the deed until further judicial resolution.</p> <p>In the first instance, the Defendants have already filed a defense, requesting</p>
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	<p>the denial of the claim.</p> <p>On May 30, 2017, the suspension of the proceeding was determined, in accordance with the decision rendered on March 29, 2017.</p> <p>On February 13, 2020, after the restart of the proceeding due to the request for copies, the proceeding was once again suspended.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The financial impact can reach up to BRL 2,343,560,742.81, which was the amount in dispute given by the MP-ES. However, it should be emphasized that the suit is still on a very preliminary stage, which makes it difficult to perform a more accurate analysis of the damages, in the event of loss.
Notes	Not applicable.

12) Case no. 0062888-27.2016.4.01.3800 (old number 0016395-63.2016.8.13.0521)	
Court	12th Federal Court of the Judicial District of Belo Horizonte (origin: 2 nd Civil Court of the Judicial District of Ponte Nova – Court of Appeals of the State of Minas Gerais ("TJMG"))
Instance	Trial Court
Filed on	02/18/2016
Parties to the proceeding	Public Prosecution Office of the State of Minas Gerais (Plaintiff) (hereinafter referred to as "MP-MG") and Samarco, Vale and BHP (hereinafter collectively referred to as "Defendants")
Amounts, goods or rights involved	Amount in dispute claimed by the Plaintiff of BRL 696,658,960.41, which, updated until December 2020, represents BRL 870,726,829.11. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On February 17, 2016, the MP-MG filed a public-interest civil action, whereby it intends to order that Defendants adopt certain measures aimed at recovering the damages allegedly caused to the urban environmental heritage of the Municipality of Barra Longa, District of Gesteira and Village of Barretos. The MP-MG intends to determine the compliance, by the Defendants, of generic obligations to do, as well as the preventive constriction of a sum in order to "guarantee" the future performance of measures still unknown.</p> <p>On February 19, 2016, a decision was rendered by the TJMG, granting the preliminary injunction, in order to (i) partially grant the interlocutory relief determining the fulfillment of the following obligations, under penalty of a daily fine of BRL 500,000.00: (a) of basic, structural and executive projects for the full recovery of impacted public assets, and (b) to carry out works to contain the entire Rio do Carmo river bed in the necessary stretches, (ii) to determine the blockade of BRL 500,000,000.00, and (iii) to determine the submission of an agreement proposal, if any.</p> <p>On February 18, 2016, Samarco filed a petition, whereby (i) it requested that (a) the case be remitted to the Federal Court, given the lack of jurisdiction of the TJMG to adjudicate the case, (b) the designation of a conciliation hearing between the parties before the examination of a possible preliminary injunction, as well as (ii) it stated that Samarco has already implemented several supporting measures, in addition to the execution of a preliminary commitment instrument with the Federal Prosecution Office and the MP-MG for the creation of a fund, in the amount of R\$ 1.0 billion, to repair social and environmental damages resulting from the disaster.</p> <p>Additionally, in the context of the above-mentioned petition, Samarco already clarified that documents that demonstrate the relevant deposits and guarantees have been provided, in the amount of R\$ 2.3 billion, as well as the adoption of measures aimed at repairing alleged social and environmental damages of the Fundão tailings dam's accident. Furthermore, it argued that the granting of financial constraints could have negative effects on Samarco and on the obligations assumed by it to mitigate the impacts resulting from the Mariana dam breach. Therefore, it requested the dismissal of the injunction formulated at the initial.</p> <p>On February 23, 2016, a decision was issued that determined the maintenance of the case record in the State Court.</p> <p>On March 1, 2016, Samarco, on petition, stated its interest in settling on the terms of the claim.</p> <p>On March 4, 2016, Samarco filed a petition with the purpose of expressing its</p>

	<p>opinion on the decision that granted the preliminary injunction, in which it stated that it had begun the works for the reconstruction, recovery and reparation of the public assets affected by the accident, as well as contracting specialized company, called 3T Construções, to act in this action.</p> <p>On March 17, 2016, Samarco filed a petition in which it demonstrated the full compliance with the preliminary injunction, and it is certain that all necessary emergency measures are already being executed.</p> <p>On March 18, 2016, Vale filed a petition with the purpose of evidencing compliance with the preliminary injunction, stating that Samarco hired specialized companies to start the Barra Longa infrastructure reconstruction activities, and the projects are in the elaboration phase.</p> <p>Against the injunction, Vale, BHP and Samarco filed an interlocutory appeal, to which supersedeas was granted.</p> <p>On April 8, 2016, Vale filed an answer in order to demonstrate that the measures pleaded by the Plaintiff have already been spontaneously complied with by Samarco. As a result, it requested the dismissal of the case, without prejudice, given the Plaintiff's lack of interest in the suit. Considering the hypothesis of the case not being dismissed without solving the merits, Vale also requested the judgment for the defendant of the requests formulated at the initial pleading, by means of the revocation of the granted injunction, in addition to the adverse judgment of the Plaintiff for the payment of attorneys' fees and costs.</p> <p>On May 11, 2016, the plaintiff challenged the arguments presented by the defendants, reiterating the reasons stated in the complaint.</p> <p>On March 30, 2016, a permit was issued for the withdrawal of the frozen amounts in Samarco's accounts.</p> <p>On June 8, 2016, a permit was issued for the withdrawal of the blocked amounts in Vale and BHPB's accounts.</p> <p>On June 27, 2016, the parties were summoned to indicate the evidence they intended to produce.</p> <p>On July 5, 2016, Vale filed a petition stating that it intends to produce parol evidence, complementary documentary evidence, expert evidence and judicial inspection. Similarly, Samarco and BHPB have manifested themselves.</p> <p>On October 11, 2016, a decision was issued that determined the submission of the case record to the 12th Federal Court of Belo Horizonte.</p> <p>On October 25, 2016, the case record was received at the 12th Federal Court of Belo Horizonte.</p> <p>On March 29, 2017, a decision was published that, considering the homologation decision issued in the scope of cases nos. 697586120154013400 and 238630720164013800, suspended the act until further decision.</p> <p>On July 6, 2017, SAMARCO filed a petition requesting the issuance of a permit to collect the amounts still uncompleted in an account linked to the proceeding.</p> <p>On September 15, 2017, the permit for the withdrawal of the amounts in favor of SAMARCO was issued.</p> <p>On March 21, 2018, the proceeding was suspended in accordance with the decision rendered on March 29, 2017.</p> <p>On February 11, 2020, after the restart of the proceeding due to the request for copies, the proceeding was once again suspended.</p> <p>On October 16, 2020, Vale petitioned for an official letter to Banco do Brasil to provide clarification on the frozen amounts. The case record has been ready for a decision since October 26, 2020.</p>
Chances of loss	Possible

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The financial impact may reach up to BRL696,658,960.41, which was the amount in dispute as determined by the Minas Gerais Public Prosecution Office (MP-MG). It should be noted; however, that no decision on merits has yet been made in respect of the claims made in the case, which makes it difficult to analyze more precisely the losses in the event of loss.
Notes	Not applicable.

13) Public Civil Action No. 1016756-84.2019.4.01.3800 (formerly No. 23863-07.2016.4.01.3800)	
Court	12 th Federal Court of Belo Horizonte
Instance	Trial Court
Filed on	05/03/2016
Parties to the proceeding	The Federal Prosecution Office ("MPE" or "Plaintiff") and Samarco, BHPB, Vale, the Federal government, Minas Gerais and Espírito Santo States, the Brazilian Water Agency ("ANA"), the Brazilian Institute of Environment and Renewable Natural Resources ("IBAMA"), the Brazilian Department of Mineral Production ("DNPM"), the Chico Mendes Institute of Biodiversity ("ICMbio"), the Brazilian Indian Foundation ("FUNAI"), the Brazilian Health Surveillance Agency ("ANVISA"), the Brazilian Institute of Historic and Artistic Heritage ("IPHAN"), the Brazilian Bank of Economic and Social Development ("BNDES"), the State Forestry Institute ("IEF"), the Minas Gerais Water Management Institute ("IGAM"), the State Foundation of the Environment ("FEAM"), the Minas Gerais State Institute of Historic and Artistic Heritage ("IEPHA"), the State Institute of Environment and Water Resources ("IEMA"), the Espírito Santo Institute of Agricultural and Forestry Defense ("IDAE") and the State Agency for Water Resources ("AGERH") (together, "Defendants").
Amounts, goods or rights involved	The amount in dispute claimed by the Plaintiff is BRL 155,052,000,000.00. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	On May 03, 2016, the MPF filed a public-interest civil action, through which it requires (i) the adoption of measures aimed at mitigating the social, economic and environmental impacts resulting from the Fundão tailings dam breach, as well as other emergency measures; (ii) adverse judgment of the Defendants for the payment of compensation to the community for the time in which it would have been impossible to enjoy a balanced environment; and (iii) adverse judgment ordering the payment of collective personal injury. The following are among the requests made: that (i) the Defendants, mutually, within 30 days, deposit in their own private fund, under their own management and inspection by certifying accountant of a specialized company, the initial value of BRL 7,752,600.000,00, which will be intended for the execution of the socio-environmental and socio-economic initial and emergency programs; (ii) the defendant companies, mutually, within 30 days, present adequate bonds in the amount of BRL 155,052,000,000.00; (iii) the defendant companies, mutually, in the event of a blocking or restrictive measure on the values of the fund, pay, within 5 business days, an amount equivalent to the amount blocked, in order to recover the minimum available net balance; (iv) a determination of the prohibition of encumbrance or alienation of the fixed assets of the Defendant companies, and the measure shall include, but not limited to, real estate, mining rights and equity interests held in the national territory; (v) the prohibition of distribution of profits by the defendant companies be ordered, either on the form of dividends, interest on own capital, or any other means; (vi) the judicial blocking of amounts derived from the profits of the companies that have not been distributed to date be ordered; (vii) the defendant companies, mutually and, in a subsidiary manner, the public entities: a) present a plan for the recovery, mitigation and social and environmental compensation of the entire environmental impact occurred as a result of the rupture of the Fundão dam, within 90 days; b) present a plan for the recovery, mitigation, compensation and socioeconomic indemnity of the entire socioeconomic impact occurred as a result of the rupture of the Fundão dam, within 90 days; (viii) the defendant companies and, in a subsidiary manner, the public entities, who pay the expenses and fees of international bodies that may be involved in the definition processes the most appropriate economic, social and environmental reparation measures, especially in the intermediation and interlocution with the affected communities; (ix) the defendant companies start and implement, as soon as the technique permits, the necessary actions to reestablish the environmental balance, restoration of the environment affected by the rupture of the Fundão dam, and recovery, compensation and indemnification for socioeconomic damages, through the programs, projects and actions comprised in the environmental recovery plan of the entire environmental

impact and in the socioeconomic recovery plan previously expected and duly approved by the Government, and this obligation must fall mutually between the defendant companies, and in a subsidiary manner to the public entities; (x) the Defendants adopt effective measures capable of permanently interrupting the dragging of mining tailings still retained in the Germano Complex or accumulated on the banks of the Gualaxo do Norte, Carmo and Doce rivers to their water bodies; (xi) the Defendant companies adopt effective measures capable of ensuring the stability and safety of the remaining structures used by Samarco in the city of Mariana and, within 30 days, present: a) proof of the adoption of measures to ensure the stability of the Germano Dam, the Santarém Dam and the other structures remaining in the Fundão (Dykes 2, Sela, Tulipa and Selinha); b) plan of emergency actions to be adopted in case of rupture of structures; c) systematized update of the existing Emergency Action Plan based on a new "Dam Break" study of the Germano Dam, Santarém Dam and other remaining structures of Fundão; d) improvement of the roads indicated for the displacement of the population potentially affected in the event of a new rupture, including by paving the expected escape route for the population of Barra Longa, which connects this municipality to that of Ponte Nova (MG); (xi) the companies, within 10 days, submit a detailed plan of short-term actions, without harm to the subsequent presentation of a definitive plan, for the management of the tailings from the Fundão dam; (xii) the Defendant companies carry out the environmentally appropriate disposal of mining waste that is removed from the area affected by the rupture of the Fundão dam, with its introduction into another production chain; (xiii) the defendant companies, within 10 days, submit a detailed short-term action plan, without harm to the presentation of a subsequent definitive plan, for emergency actions for revegetation, reforestation and restoration of permanent preservation areas; (xiv) the defendant companies present, within 60 days, a preliminary diagnosis of all permanent preservation areas degraded along the marginal riverbanks of the Doce River Hydrographic Basin and, based on the diagnosis, elaborate a plan of emergency actions of its full recovery; (xvi) the defendant companies, within 30 days, initiate the execution of a plan of emergency actions for the recovery and conservation of the aquatic fauna, which must contain at least the following lines of action: a) schedule of actions for temporary restocking of affected native species; b) measures to support entities that have conserved specimens collected in the Arca de Noé Operation for the conservation of genetic material and the development of research; (xvii) that, within 30 days, the defendant companies submit and initiate the execution of a plan of emergency actions for the recovery of cultural assets of material nature and preservation of the cultural heritage of the districts of Bento Rodrigues, Paracatu de Baixo and Gesteira, as well as the Municipality of Barra Longa, following at least the following parameters: a) development and implementation, through plaintiffized professionals, of archaeological project of the affected sites; b) dissemination of the scientific knowledge already produced regarding the archaeological heritage of the affected region, which access and continuation of research was made unfeasible by the changes in relief caused by the rupture; c) execution of works of recovery of the affected cultural heritage, preferably by means of school-sites that favor the use and training of local labor; d) actions for the rescue, the generational transmission and the promotion of the cultural activities of the communities, such as parties and celebrations, traditional knowledge and techniques, workmanship and cooking; (xviii) to the defendant companies that, within 30 days, complete the process of registration of all those affected, considering for this purpose all entities, individual or legal, and communities that have suffered material or immaterial impacts as a result of the rupture of the Fundão dam, located in the municipalities bathed by the Doce, Gualaxo do Norte, Carmo Rivers, Santarém creek and estuarine, coastal and marine areas between the municipalities of São Mateus (ES) and Aracruz (ES), among others.

On May 9, 2016, the case record was withdrawn by the Office of the General Counsel for the Federal Government, for statement purposes. Then, the Federal Government filed for the denial of the preliminary injunction claims.

On June 03, 2016, a petition was filed by BHPB, requesting the denial of the MPF's preliminary injunctions without first hearing the defendants. It was basically alleged: (i) the absence of *periculum in mora* (danger of delay); (ii) the absence of *fumus boni iuris* (appearance of truth); and (iii) the existence of significant reverse risk.

On June 21, 2016, the State of Minas Gerais filed a petition requesting the denial of the claims for interlocutory relief made by plaintiff and requesting the dismissal of the case without prejudice due to the lack of interest in the suit by

	<p>the MPF.</p> <p>In July 2016, the Court excluded all government authorities and BNDES as defendants in this proceeding. In addition to it, the decision postponed the examination of preliminary injunctions for after the preliminary conciliation hearing and gave Samarco a notice to clarify, within 30 days, the issue of containment of the mud carried by the rains, specifying the emergency measures to be adopted.</p> <p>On July 26, 2016, a decision was rendered granting the motion for clarification from MPF to institute a fine of BRL 150,000.00 against defendants on the ground of failure to comply with the preliminary injunction.</p> <p>On August 10, 2016, Samarco filed a petition stating that it would comply with the preliminary injunction and take all necessary measures to reinforce the remaining structures, in addition to the containment and management of the Fundão tailings. However, it stated that, given the complexity of the necessary measures, the definitive solutions take time, so that it would be unreasonable to comply with the MPF's preliminary injunction requesting that the defendants be ordered to pay a fine and to dredge and dry the tailings existing in the region.</p> <p>In September 2016, a preliminary conciliation hearing was held.</p> <p>On October 05, 2016, a new hearing was held among the parties and their lawyers to determine how to hire the firms specialized in expert evidence. Moreover, the compensation program developed by the companies was submitted and will be assessed by the MPF. A new meeting was held on October 28, 2016, in which the same topics were addressed.</p> <p>On November 11, 2016, a decision was rendered shifting the burden of proof and notifying the experts to submit their fee proposals. In addition to it, the decision gave the defendants notice to file their defenses. On January 24, 2017, Vale filed an interlocutory appeal against the decision that shifted the burden of proof.</p> <p>In January 2017, Samarco, Vale and BHPB entered into two preliminary agreements with the Federal Prosecution Office regarding this public-interest civil action and the public-interest civil action under No. 0023863-07.2016.4.01.3800 filed by the Brazilian government and others.</p> <p>The Preliminary Consent Decree I, already partially ratified, has the purpose of defining the procedures and the negotiation schedule for the execution of a final consent decree, expected to occur by June 30, 2017. This Preliminary Consent Decree I creates the basis for the conciliation of two public civil actions that seek to establish socio-economic and socio-environmental reparations and compensations for the impacts of the Fundão tailings dam breach: (i) the Public Civil Action No. 0023863-07.2016.4.01.3800, filed by the MPF (the amount indicated by plaintiff of BRL 155 billion), and (ii) the Public Civil Action No. 0069758-61.2015.4.01.3400, filed by the Federal Government, by the States of Minas Gerais and Espírito Santo, and other government officials (amount of BRL 20.2 billion).</p> <p>The Preliminary Consent Decree I further provides: (a) the hiring of "experts" chosen by the MPF and paid for by the companies to perform a diagnosis and monitor the progress of the 41 programs of the TTAC signed on March 2, 2016 between the companies, the Federal Government and the governments of Minas Gerais and Espírito Santo and other governmental authorities; and (b) the holding of at least 11 public hearings by April 15, 2017, 05 being in Minas Gerais, 03 in Espírito Santo, and the others in the indigenous lands of Krenak, Tupiniquim Guarani, Comboios and Caieiras Velhas, with the purpose of allowing the participation of the communities in the definition of the content of the final consent decree.</p> <p>Additionally, a second Preliminary Consent Decree was executed, which establishes a timetable for the availability of funds for the programs of reparation of the socio-economic and socio-environmental damages caused by the rupture of the Fundão Dam in the municipalities of Barra Longa, Rio Doce, Santa Cruz do Escalvado and Ponte Nova, worth BRL 200 million ("<u>Preliminary Consent Decree II</u>"). This Preliminary Consent Decree II was ratified by the Judge of 12th Federal Court on March 23, 2017.</p>
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	<p>On January 26, 2017, a decision was rendered suspending the course of the procedural deadline for the deposit of BRL 1.2 billion and opened a five-day deadline for the plaintiffs to express their opinion on the Preliminary Consent Decree I, executed between the defendants and the MPF.</p> <p>On March 16, 2017, a decision was rendered which (i) partially ratified the Preliminary Consent Decree I and II, determining the suspension of the case until further judicial deliberation, (ii) accepted, for the time being, the guarantees provided for in the Preliminary Consent Decree I, with the caveat that they do not replace or modify the preliminary injunction order for cash deposit.</p> <p>On July 6, 2017, a joint petition of Samarco, Vale and BHP was filed requesting the extension of the term of suspension of the case until October 30, 2017.</p> <p>On July 17, 2017, a decision was rendered which (i) reiterated the suspension of the case to safeguard the term for challenging the Federal Prosecution Office's answer, and (ii) failed to examine the request filed by the Public Defender's Office for the Federal Government, towards joining the suit, as it will be the subject matter of resolution in the case record of the ACP (Public Civil Action) of BRL 20 billion.</p> <p>On October 31, 2017, a decision was rendered which, by granting the request submitted by Samarco, Vale, BHP and the Federal Prosecution Office, ratified a partial amendment to the Preliminary Consent Decree, granting the deadline until November 16, 2017 for the submission of the terms of the final agreement (TACF). The same decision extended the legal and procedural effects of the Preliminary Consent Decree and of the confirmatory decision dated March 16, 2017.</p> <p>On November 20, 2017, a decision was rendered which, by granting a request submitted by Samarco, Vale, BHP and the Federal Prosecution Office, ratified a partial amendment to the Preliminary Consent Decree, granting the deadline until April 20, 2018 for the submission of the terms of the final agreement (TACF). The same decision extended the legal and procedural effects of the Preliminary Consent Decree and of the confirmatory decision dated March 16, 2017.</p> <p>On August 31, 2018, a joint decision was issued that (i) deemed the phase of the acquaintance of ACP No. 0069758-61.2015.3400 extinct, pursuant to article 487, item III, "b" and Article 354; both of the CPC; so that it may have its juridical and legal effects; (ii) suspended ACP No. 0023863-07.2016.4.01.3800 in relation to applications not contemplated in the Term of Conduct Adjustment (TAC Governance) and Amendment to the Preliminary Adjustment Agreement - which is intended to adjust the provisions of the TAP in what concerns the activities related to the socioeconomic axis, allowing the socioeconomic diagnosis and the contracting of the technical advisory services to the affected people -, duly homologated; (iii) immediately suspended ACP No. 0023863-07.2016.4.01.3800, until the MPF and the companies, by mutual agreement, define the remaining requests, submitting them to the deliberation of this judgment. Against this decision, a clarification request was made regarding the adequacy of the TAP and its amendment. This request for clarification was received as a statement of objection only with respect to that part of the judgment that is the subject of the request for clarification.</p> <p>On September 27, 2018, a decision was issued that (i) denied the request for intervention of the Municipality of Ponte Nova as <i>amicus curiae</i> or joint litigant, (ii) denied the request of the Federal Government Public Defender's Office ("DPU") to enter the suit as a party, allowing only its admission in the deed as <i>amicus curiae</i>, (iii) denied the request of the Municipality of Mariana to join the proceedings as a simple assistant or joint litigant, (iv) denied the request for intervention by the Bar Association as <i>amicus curiae</i>, (v) dismissed the request for intervention of the Municipality of Ouro Preto for admission to the event by means of anomalous intervention, (vi) rejected the request for intervention from the Group of Socio-environmental Studies and Research GEPSA HOMA Centro de Direitos Humanos and Companies of ORGANON Núcleo de Estudo Pesquisa e Extensão em Mobilizações Sociais and Extensão Política Economia Mineração Ambiente e Sociedade POEMAS as <i>amicus curiae</i>, (vii) denied the request for intervention of the Municipality of Anchieta to join in the act by means of anomalous intervention, (viii) denied the request for suspension of the effects of the decision until the judgment of the requests now ready and</p>
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	<p>devoid. The decision also emphasized that the additive interpretative legal reservations imposed by the court remain valid and determined the summons of other procedural interested parties for demonstration within the legal term of the motions for clarification. Finally, the institutional adhesion of the Prosecution Office of the State of Espírito Santo, the DPU of the Office of the Public Defender of the State of Minas Gerais and the Office of the Public Defender of the State of Espírito Santo to the Preliminary Adjustment Term (TAP) was homologated, so that it makes the legal effects. Following and in fulfillment of the decision of sheets 13884, it was determined the suspension of this suit until further judicial deliberation.</p> <p>On April 27, 2020, the MPF reiterated the terms of the statement dated April 1, 2020 and reported that the restriction to data that the Renova Foundation has imposed on experts is not just limited to access to data from dashboards, but also to all information necessary to carry out the monitoring and diagnosis of the damage caused by the Fundão tailings dam breach.</p> <p>On June 25, 2020, the defendants spoke jointly in the case record about the methodology and process of implementation of health studies, which addresses the item "Work Front 5 - Health Damage From Primary Data" of Proposal 3 and 4 EDTs - 12/30/2019". They requested for a hearing to be held aiming at conciliation and, if not obtained, that the realization of conceptual expertise be determined, through which the appropriate methodology and implementation process be defined to comply with the scope of work of the Work Front 5 of FGV's contracting, considering technical and specific clarifications to be presented in due course.</p> <p>On June 25, 2020, in compliance with the decision that endorsed TAP, Vale requested that permission be granted to enter into a confidentiality agreement and continue with the negotiations for possible contracting of FGV Europe.</p> <p>On August 14, 2020, the MPF spoke about the petition included in the case record by the defendants on the scope and methodology of the work of the expert Getúlio Vargas Foundation, claiming that the attitude of the companies impairs a correct assessment and diagnosis of the socioeconomic damage caused by the technological disaster caused by the Fundão tailings dam breach, in order to allow the beginning, continuity and implementation of studies on human health in this case, among them that of the Getúlio Vargas Foundation (Front 5), as conceived.</p> <p>On August 25, 2020, on the basis of Clause 258 of the TTAC and Clause 103, paragraph 103, paragraph 103, of the TAC Governance, the defendants jointly presented an incident of divergence of interpretation in the implementation of the TTAC.</p> <p>On September 30, 2020, the MPF, MPMG and Public Defender's Offices expressed their opinions in the case record of the 155 bi, requesting the immediate return of the processing of the proceeding regarding the requests contained in the complaint, to address those that were not contemplated in the TAC-Gov, as well as those that have not been fulfilled, and those that have been implemented differently from the agreement, determining the subpoena of the defendant companies to express their opinions on the set of reports so far produced by their experts.</p> <p>On October 29, 2020, the MPF requested the extension of the damage matrix set for the categories of affected persons recognized in Baixo Guandu/ES and Naque/MG in the respective enforcements of judgment of Axis 7, for all other territories affected by the Fundão tailings dam breach, qualifying the respective amounts as minimum indemnity, without requiring the signing of a full and definitive discharge term, as well as a withdrawal/waiver of indemnification claims contained in actions in progress in foreign countries.</p> <p>On March 2, 2021, the DPU and the Rosa Fortini Alternative Center for Popular Formation included petitions in the case record alleging that the Renova Foundation has promoted mass cancellation of the AFE and requesting: the reinstatement of the full payment of all emergency financial aid cut down, in whole or in part, to quilombola families of the community of Degredo (Linhares/ES), or to the families of the municipalities of Santa Cruz do Escalvado/MG, Rio Doce/MG and Chopotó district (Ponte Nova/MG), after having suffered undue and unjustified reductions.</p> <p>On March 10, 2021, the MPF requested the suspension of the action until April</p>
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	<p>27, 2021, with a view to starting, in the period, the negotiations for a possible renegotiation of the measures of full reparation of socioeconomic and socio-environmental damages arising from the Fundão tailings dam breach.</p> <p>On March 19, 2021, the companies agreed to suspend the action by April 27th. The request for suspension was granted on March 25th.</p> <p>In the same month of March 2021, the MPF filed a motion to recuse the Judge Mário de Paulo, objecting to the behavior of the Judge, which would indicate a biased conduct of the proceedings related to the reparation regarding the breach and the impossibility that the lawsuit would continue in an impartial manner, with the Judge who conducted the case so far.</p> <p>On April 5, 2021, an order was issued acknowledging the motion to recuse, stating that the court will rule in legal time and suspending the process in accordance with article 313, item III of the Code of Civil Procedure.</p> <p>On May 23, 2021, a decision was rendered by Judge of the 1st Region TRF, accepting the Suspicion Incident without suspensive effect, for not seeing any urgency that would justify its concession.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The process is relevant by virtue of matter and value. The parties entered into the TTAC, and subsequently the TAC Governance, through which it was agreed to carry out programs needed for the environmental and social restoration of the areas impacted by the accident. For more information about the TTAC, see item 4.7 of this Reference Form. In addition, the Preliminary Consent Decree I was signed with respect to the guarantees and the TAC Governance that extinguished this lawsuit. For further information, refer to item 4.7 of this Reference Form.
Notes	Not applicable.

14) Case No. 16-CV-8800	
Court	New York Federal Court
Instance	United States District Court for the Southern District of New York
Filed on	3/6/2017
Parties to the proceeding	Holders of debt securities issued by Samarco Mineração S.A. (" <u>Plaintiffs</u> "), and Samarco, Vale and BHPB (collectively, " <u>Defendants</u> ")
Amounts, goods or rights involved	Amount to be assessed during the pre-trial phase, if the appeal from the Plaintiffs is granted.
Main facts	<p>In March 2017, the Plaintiffs filed a collective action claiming indemnification for alleged violations of bond laws and other credits related to the purchase and sale of debt securities issued by Samarco.</p> <p>The Plaintiffs claim that Vale would have made false and misleading representations or omitted disclosures on the risks and hazards of the operations at Samarco's Fundão dam and the adjustment of related programs and procedures.</p> <p>After the Fundão dam rupture incident that took place in November 2015, the Plaintiff state that the bonds suffered a severe devaluation, so that the investors who had mistakenly purchased them should be indemnified.</p> <p>On April 4, 2017, the Plaintiffs filed a petition voluntarily waiving any suits that had been raised against individual Defendants.</p> <p>On June 26, 2017, Vale and the other Defendants collectively filed a motion to dismiss the suit.</p> <p>On August 1, 2017, the motion to dismiss was disputed by the Plaintiffs.</p> <p>On August 31, 2017, Vale and the other Defendants collectively filed a reply against the dispute filed by the Plaintiffs.</p> <p>In March 2018, the judge handed down a decision that rendered the motion to dismiss as extinct without prejudice and determined that the Plaintiffs should submit an amendment of the complaint. The Plaintiffs have already submitted the amendment and on April 30, 2018 the judge defined a new schedule for the lawsuit, according to which a new motion to dismiss should be submitted on May 21, 2018 against the group of Defendants. On May 21, 2018 the Defendants submitted a motion to dismiss.</p>

	<p>On October 5, 2018, there was a special hearing with the Judge, in which the parties presented verbal arguments on the case.</p> <p>In June 2019, the Judge dismissed the case, accepting the motion to dismiss submitted by the Defendants.</p> <p>In December 2019, the plaintiff submitted a protest informing that the decision would be appealed.</p> <p>On March 10, 2020, the Plaintiff filed his reasons for appeal.</p> <p>On March 20, 2020, the Defendants jointly submitted a petition to the Court of Appeals for the Second Circuit, requesting that June 8, 2020 is defined as the final date for joint submission of the answer brief for appeal, which was accepted by the Court of Appeals.</p> <p>On June 8, 2020, the Defendants filed a response to the Plaintiff's appeal.</p> <p>On January 13, 2021, a trial session was held to support the oral arguments by the parties.</p> <p>On March 4, 2021, a decision was handed down by the Court of Appeals for the Second Circuit, denying the Plaintiff's appeal and thereby upholding the decision of invalidity of the Trial Court.</p> <p>The Plaintiff did not file any appeal requesting a new judgment by the Court of Appeals, and the deadline for that measure has already elapsed. However, in theory, there is the possibility of appeal to the Supreme Court, still ongoing on the date of the filing of this Reference Form.</p>
Chances of loss	Remote
Analysis of impact in the case of losing the suit / Reasons this case is significant to the Company	An ultimately unfavorable decision in the lawsuit could cause financial losses to the Company, as well as damage to its image.
Notes	Not applicable.

15) Case No. 1002605-16.2019.4.01.3800 (formerly No. 0033942-91.2016.8.13.0400)	
Court	1 st Civil Court of Mariana/MG
Instance	Trial Court
Filed on	09/28/2016
Parties to the proceeding	Public Prosecution Office of the State of Minas Gerais (Plaintiff) (hereinafter referred to as "MP-MG") and Samarco, Vale and BHP (hereinafter collectively referred to as "Defendants")
Amounts, goods or rights involved	Amount in dispute claimed by the Plaintiff of BRL 1,546,286.55, which, updated until December 2020, represents BRL 1,845,924.09. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On August 29, 2016, the Public Prosecution Office of the State of Minas Gerais filed this public civil action claiming that the suspension of Samarco's activities might have prevented the City of Mariana from receiving the Financial Compensation for the Exploitation of Mineral Resources — "CEFEM", which proceeds would be usually destined to health and education expenditures. This is the reason why it asks for the Defendants to be preliminarily required to make a monthly payment to the Government of the City of Mariana in the amount of BRL 1,394,308.39, corresponding to the monthly average amount of the City's revenue from Samarco's activities.</p> <p>On September 12, 2017, a decision was handed down rejecting the temporary restraining order requested by the Public Prosecution Office of the State of Minas Gerais.</p> <p>Against that decision, the Public Prosecution Office lodged an interlocutory appeal, the interlocutory relief of which was rejected (case no. 0766492-37.2016.8.13.0000)</p> <p>On December 6, 2017, Samarco filed an answer stating that Public Prosecution Office's request was unreasonable, since the Public Prosecution Office was not entitled to do so. Moreover, Samarco states that the payment of such compensation is not due, since its operations have been stopped.</p>

	<p>On August 31, 2017, Vale submitted its answer, where it requested the litigation to be extinct, since the Public Prosecution Office is not entitled to claim any ownership rights inherent to the City of Mariana; and the requests to be judged with prejudice, as the payment of a compensation would not be applicable given the suspension of Samarco's operations.</p> <p>On November 7, 2017, an order was handed down summoning the parties and asking them to point out any questions of fact and law that they regarded as relevant to the judgment of the case.</p> <p>On November 20, 2017, the petitions were filed in accordance with the order dated November 7, 2017.</p> <p>On April 2, 2019, the case record was sent to the 12th federal court of BH.</p> <p>Decision handed down on March 23, 2021, through which the Judge of the 12th Federal Court affirmed its jurisdiction for the judgment of the claim, emphasizing that the matter discussed through this ACP is included by the discussions held within the scope of the ACPs of 155 Bi and 20 Bi, in addition to the priority axes, thus determining the suspension of the process until further judicial resolution, subject to the possibility of continuing the action, if the particularities of the case so recommend it. Finally, it determined that the case was linked to the ACP of 20 Bi.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The financial impact may reach BRL1,546,286.55, which was the amount in dispute as determined by the Minas Gerais Public Prosecution Office. However, it should be emphasized that the suit is still on a very preliminary stage, which makes it difficult to perform a more accurate analysis of the damages, in the event of loss.
Notes	Not applicable.

16) Case No. 0019601-77.2017.4.01.3800 (formerly No. 0041994-76.2016.8.13.0400)	
Court	12 th Federal Court of Belo Horizonte/MG
Instance	Trial Court
Filed on	10/26/2016
Parties to the proceeding	Public Prosecution Office of the State of Minas Gerais (Plaintiff) (hereinafter referred to as "MP-MG") and Samarco, Vale and BHP (hereinafter collectively referred to as "Defendants")
Amounts, goods or rights involved	Amount in dispute by the Plaintiffs of BRL 165,968,116.41, which, updated until December 2020, represents BRL 197,674,565.67. In view of the subject matter and progress of the proceeding, the Company considers the amount involved in a possible adverse judgment to be incalculable.
Main facts	<p>On October 26, 2016, the Public Prosecution Office of the State of Minas Gerais filed this public civil action in an attempt to have VALE, SAMARCO and BHP sentenced to recover any damages allegedly caused to speleological assets, such as shelters, grottoes, and caves.</p> <p>On November 22, 2016, the conciliation hearing was held; however, the parties failed to reach an agreement.</p> <p>On February 8, 2017, SAMARCO filed its answer asking for the lawsuit to be dismissed, as virtually all of the caves identified by the Plaintiff as affected are not legally protected. As for the other points, SAMARCO demonstrated the lack of evidence of the alleged damages as claimed by the Plaintiff. Moreover, Samarco asked the case record to be sent to the 12th Federal Court, given the interest of the Federal Government in this litigation.</p> <p>On February 16, 2017, the oppositions submitted by VALE and BHP were adjoined, both of which requested the lawsuit to be dismissed.</p> <p>On April 7, 2017, the case record was definitely sent back to the 12th Federal Court of Belo Horizonte.</p> <p>On September 6, 2017, an order was published granting the MPF access to the case record, so that the MPF could submit its position on its entitlement to file this lawsuit.</p> <p>On October 30, 2017, an order was published determining a stay of proceedings considering the decision handed down in the case record of cases no. 23863-07.2016.4.01.3800 and no. 69758-61.2015.4.01.3400.</p>

	<p>On February 7, 2018, the suspension of the suit was determined, in accordance with the decision rendered on September 6, 2017.</p> <p>On January 23, 2020, after access to the case record for copies was allowed, the case record was once again suspended.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The financial impact may reach BRL150,000,000.00, which was the amount in dispute as determined by MP-MG. It should be noted; however, that the lawsuit is still at a very early stage, which makes it difficult to analyze damages more precisely in the event of loss.
Notes	Not applicable.

17) Case No. 1009492-23.2017.4.01.3400	
Court	22 nd Federal Court of the Federal District Chapter
Instance	Trial Court
Filed on	8/9/2017
Parties to the proceedings	Max Mauran Pantoja da Costa, Antonio Augusto de Miranda e Souza, Ronaldo Tedesco Vilardo, Silvio Sinedino Pinheiro, and Délvio Joaquim Lopes de Brito as the Plaintiffs, and Vale S.A., Valepar S.A., Banco Nacional do Desenvolvimento Econômico e Social – BNDES, BNDES Participações S.A. – BNDESPAR, Fundação dos Economistas Federais – FUNCEF, Fundação Petrobrás de Seguridade – PETROS, Caixa de Previdência dos Funcionários do Banco do Brasil – PREVI and the Federal Government, as the Defendants
Amounts, assets or rights involved	Incalculable amount
Main facts	<p>This citizen suit was filed by some FUNCEF executives and oil workers against Vale, Valepar, BNDES, BNDESPAR, the Federal Government, FUNCEF, PETROS and PREVI, with a request for an injunction, so that a suspension would be granted for: i) the conversion of Vale preferred stocks into common stocks; ii) the dismissal of the existing control block; iii) the merger of Valepar by Vale; and iv) all other acts and deliberations made at the Special General Meeting held on June 27, 2017, where the acts required for Vale to have access to the B3 Novo Mercado were approved. As for the merits, the annulment of said General Meeting was requested pursuant to the allegation that Vale's new corporate structure and its access to the Novo Mercado would cause damage and losses to the Federal Government and the respective entities and controlled companies.</p> <p>The injunction was rejected by the Court and as no appeal was lodged against it, it is now stabilized.</p> <p>On January 22, 2018, Vale, on its own behalf and as a successor to Valepar, objected to the action. The other defendants then submitted their defenses.</p> <p>On December 18, 2018, PREVI joined the lawsuit, requesting conformation in the process, since it was not yet mentioned. The plaintiffs did not file a counter-defense to the answers submitted by the Defendants, which was certified by the notary office.</p> <p>On April 12, 2019, the Federal Public Prosecution Office filed a request with the Court to issue an official letter to the CVM, to inform the stage of Case no. 19957.006030/2017-13 before this agency, which addresses the object of this citizen suit, being the purpose of said administrative proceeding to ascertain alleged irregularities "in the process of resolution of the statutory bodies of Litel Participações S.A., Valepar S.A., and Vale S.A.".</p> <p>On July 4, 2019, the CVM responded to the Official Letter required by the MPF, informing about the stage of Proceeding no. 19957.006030/2017-13 and demonstrating that the investigation report stated that it was not possible, based on the plaintiff's statement, "to reach the conclusion that there was undue external interference in the process that decided for the Corporate Restructuring of the Company".</p> <p>We inform that, according to the contact made by the Company with the CVM, said administrative proceeding is closed.</p> <p>On October 18, 2019, after CVM's response to the aforementioned administrative proceeding before this Agency, the MPF submitted a statement to the Court giving</p>

	<p>its opinion on the judgment of the case in the state it is in, with the dismissal the plaintiff's request.</p> <p>On March 23, 2020, a decision was rendered ordering the parties to make a statement on the opinion of the Federal Prosecution Office (MPF).</p> <p>On May 21, 2020, Vale filed a petition reiterating the defense arguments, and reinforced the understanding of the MPF, so that the action is dismissed.</p> <p>On September 19, 2020, a decision was handed down, ruling the action as fully groundless, thus acknowledging the regularity of all corporate acts relating to Vale's insertion in B3's Novo Mercado.</p> <p>On September 25, 2020, motion for clarification regarding the ruling was filed by the plaintiffs, which were contested by Vale on May 27, 2021.</p> <p>On May 20, 2021, the defendants were notified of the decision that determined the defendants' manifestation on the declaratory embargoes opposed by the plaintiffs.</p> <p>On May 27, 2021, an objection to the aforementioned declaration embargoes was presented. The Court is awaiting a decision on these embargoes.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	The lack of success in such lawsuit may cause relevant financial and reputational losses to the Company.
Notes	Not applicable.

18) Cases No. 5010709-36.2019.8.13.0024 (ACP 5026408-67.2019.8.13.0024), 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024	
Court	2nd Court of the Public Treasury and Government Agencies of the Judicial District of Belo Horizonte
Instance	Trial Court
Filed on	01/25/2019
Parties to the proceeding	State of Minas Gerais, Public Prosecution Office of the State of Minas Gerais and Public Defender's Office of the State of Minas Gerais x Vale S.A.
Amounts, goods or rights involved	<p>The amount in dispute of the ACP 5026408-67.2019.8.13.0024 was BRL20,000,000,000.00; however, there are illiquid orders and/or orders involving the adoption of several measures, which of course have an economic nature. The amount in dispute, adjusted for inflation until December 31, 2020, was BRL21,717,532,161.66.</p> <p>The amount in dispute of the ACP 5044954-73.2019.8.13.0024 was BRL50,000,000,000.00; however, there are illiquid orders and/or orders involving the adoption of several measures, which of course have an economic character. The amount adjusted on December 31, 2020 was equivalent to BRL 54,293,830,404.15.</p> <p>The amount in dispute of ACP 5087481-40.2019.8.13.0024 was BRL100,000,000,000.00; however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. The amount adjusted on December 31, 2020 was equivalent to BRL108,587,660,808.31.</p>
Main facts	<p>It concerns interlocutory relies of an advance nature, later amended to change in Public Civil Actions, filed by the State of Minas Gerais (5026408-67.2019.8.13.0024) and Public Prosecution Office of the State of Minas Gerais (5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024) against Vale SA due to the breach of tailings dam I of the Córrego do Feijão Mine in Brumadinho, and the damages caused to the environment and to the victims, aiming at the integral reparation for the environmental and socioeconomic damages resulting from the damaging event.</p> <p>An injunction was granted in Relief 5010709-36.2019.8.13.0024 (ACP 5026408-67.2019.8.13.0024), on January 25, 2019 to determine the unavailability and freezing of BRL1,000,000,000.00 of Vale S.A. or any of its subsidiaries; as well as the execution of several emergency measures and the submission, within 48 hours, of the detailed report on the measures already taken; follow the general protocols for accidents of this nature in order to stop the volume of tailings and mud launched by the dam breach, informing weekly the activities carried out and the results obtained to the court and to the competent authorities; mapping of</p>

	<p>the different resilience potentials of the affected area, observing the thickness of the mud cap, grain size, and the pH of the material, in addition to the possible concentration of heavy materials; prevent the waste from contaminating sources of riverheads and water capture, as indicated by the DNPM, reporting on the initiatives adopted; to control the proliferation of synanthropic species (rats, cockroaches etc.) and vectors of diseases transmissible to humans and animals close to homes and communities by themselves or by a duly hired specialist.</p> <p>There was an amendment to the complaint on January 25, 2019.</p> <p>The following day, preliminary rulings were issued in actions 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024. The first decision determined: (a) the adoption of all necessary measures to guarantee the stability of dam VI of the Feijão Mine Complex; (b) presentation of reports, every 6 hours or in the shortest time necessary, to SEMAD, the State Civil Defense and that of the municipalities at risk, and the Fire Department on the measures being taken and the situation of stability or not of Dam VI; (c) freezing of amounts found in Vale's accounts in amounts not lower than BRL 5 billion. In case there is no available balance, it was requested the unavailability of automobiles through Renajud and real estate through dispatch of official letters to the registers of deeds of Belo Horizonte and Brumadinho.</p> <p>While the second one defined: (a) the blocking of the amounts of R\$ 5 billion of VALE's accounts, through BACENJUD system; (b) that VALE be responsible for the reception, sheltering in hotels, inns, rented properties, with the costs related to travel, transportation of movable property, people and animals, in addition to total cost of food, supply of drinking water, observing the dignity and adequacy of the places to the characteristics of each family, always in conditions equivalent to <i>the status quo</i> prior to the disaster, for all people who had their housing conditions compromised as a result of the disruption; (c) that people be heard about the choice of the place of shelter; (d) that the community of residents affected is provided with full assistance, and must provide a multidisciplinary team; (e) that adequate structure be made available for the reception of the relatives of victims who are missing and those already with confirmation of death, providing updated information to each family, food, multidisciplinary team support, transportation, burial expenses and all logistical and financial support requested by the families; (f) that missing persons newsletters are released, updated every six hours; and (g) that VALE weekly provides the Court with the list of families removed from their homes, places where they are sheltered, as well as a detailed report of all measures to support those affected.</p> <p>Several court-appointed hearings were held, opportunities in which different agreements were executed between Vale and the plaintiffs, such as, for example, emergency payment for those affected, a procedure to reimburse State expenses, a work suggested by COPASA for water capture in the Paraopeba River in a different location from the current one, clearance of R\$500,000,000.00 previously frozen in ACP 5026408-67.2019.8.13.0024.</p> <p>The judgement that granted the injunction on January 25, 2019 was challenged by an interlocutory appeal, to which the grant of supersedeas was denied. Subsequently, the interlocutory appeal was partially provided, in order to determine that the amount deposited in court (R\$ 500 million) is used only in cases of prior consent from the parties or a court decision. The appellate decision became final and unappealable on February 10, 2020.</p> <p>On February 20, 2019, a conciliation hearing was held, in which the parties entered into the Preliminary Agreement for emergency payment to those affected. In these terms, Vale undertook to perform the emergency payment, in the amount of 1 minimum monthly wage for all adults, as well as 50% of this amount for adolescents and 25% for children: (a) all persons registered in the city of Brumadinho, up to the date of the failure of the Dam; (b) residents up to 1 km from the Paraopeba river bed, from Brumadinho to the city of Pompéu, at the Retiro Baixo dam. On that occasion, it was determined by the Judge of the 6th Court of Public Finance and Government Agencies of Belo Horizonte, current 2nd Court of Public Finance and Government Agencies of Belo Horizonte, the referral of the file of the first action filed by the Public Prosecutor's Office (5044954-73.2019.8.13.0024), at the time in the process before the 1st Civil Court of the District of Brumadinho. The jurisdiction was effectively declined on March 21, 2019 and, once it was arrived at the 2nd Court of Public Finance of Belo Horizonte, ACP no. 5044954-73.2019.8.13.0024 began to process together with ACP no. 5026408-67.2019.8.13.0024.</p>
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	<p>On March 07, 2019, the parties entered into an "Agreement of Procedures for the Reimbursement and Supply of Emergency Measures to the State of Minas Gerais." In this context, Vale has undertaken to reimburse the State's expenses with the remedial measures due to the failure of the dam, and contract services and provide equipment for any necessary measures.</p> <p>On April 04, 2019, the TAC Pará de Minas as ratified, which provides for the preparation, the costing, and performance of the project and works for the construction of new systems of intake and supply of untreated water, suitable and sufficient to ensure at least flow of 284 liters per second, as a minimum, to be made available at the existing water treatment plant, located in Pará de Minas, in replacement of the abstraction that was made at Paraopeba River.</p> <p>Subsequently, at a hearing held on May 9, 2019, Vale agreed to carry out at its expense new water intake from the Paraopeba River, indicated by COPASA, 12 km above the entity's current point of abstraction. In addition, the issuance of a R\$ 500 million release permit was determined, by replacing this amount with a performance bond.</p> <p>On June 10, 2019, the Judge of the 1st Civil Court of the District of Brumadinho, declared incompetence for the trial of the action of no. 5087481-40.2019.8.13.0024 and determined the referral of the documents to the competent court, that is, the 6th Court of Public Finance and Government Agencies of Belo Horizonte, current 2nd Court of Public Finance and Government Agencies of Belo Horizonte.</p> <p>After the referral of the two ACPs proposed by the Public Prosecutor's Office of the State of Minas Gerais to the Court in which it proposed the ACP state, for prevention, the three ACPs have been proceeding together. Although already put into action (ACP 5026408-67.2019.8.13.0024), the antecedent interlocutory relief no. 5010709-36.2019.8.13.0024 remains active in the system. However, there are no specific applications pending for consideration in interlocutory relief, since their final claims are contained in the ACP.</p> <p>A preliminary decision was given at a hearing held on July 9, 19, in which the merits were partially judged to, in the absence of opposition from Vale, declare its responsibility for reparation for the damages caused by the collapse. The other requests made in the initials were also appreciated, as well as the replacement of half of the blocked amount in the two ACPs proposed by the Public Prosecution's Office of Minas Gerais (equivalent to R\$ 5.5 billion) by performance bond or bank suretyship.</p> <p>Then, the Public Prosecution's Office of Minas Gerais and Vale filed interlocutory appeals of this decision.</p> <p>The technical advisory services chosen by the community were approved, with the participation of the Public Prosecution's Office, namely, AEDAS (Regions 1 and 2), NACAB (Region 3), and Instituto Guaicuy (Regions 4 and 5), at the hearings of May 21, 2019 and July 8, 2019.</p> <p>TAC COPASA was also signed on July 8, 2019, for the purposes of monitoring AECOM on compliance with measures aimed at restoring water abstraction by COPASA for the Metropolitan Region of Belo Horizonte and other municipalities affected by the rupture. Two amendments to the instrument were subsequently approved, on September 24, 2019 and October 24, 2019.</p> <p>On November 21, 2019, the instrument signed between the parties was ratified at the hearing, with the intervention of AECOM, IGAM and MPF, for monitoring of water management of the Paraopeba River.</p> <p>On November 28, 2019, a decision was given at a hearing that approved the agreement signed by the parties, by which they adjusted the extension of the emergency payment agreed at TAP, for another 10 months, in which a minimum wage per adult, half minimum wage per adolescent and 1/4 minimum wage per child, for people who have been proven to reside, at the time of the breakup, in the communities of Córrego do Feijão, Parque da Cachoeira, Alberto Flores, Cantagalo, Pires and on the banks of the Ferro-Carvão Stream, as well as for those who, although they reside in locations different from those mentioned, are at that time participating in the following support programs developed by VALE: housing, social assistance, agricultural assistance, and assistance to local producers. For the other persons not contained in the above criteria and who already receive the emergency payment established at a hearing on February 20,</p>
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	<p>2019, continued payment, also for 10 months, of the amount equivalent to 50% of the amounts previously agreed.</p> <p>On March 5, 2020, a conciliation hearing was held at which, among other issues, the working conditions of technical consultancy services, such as time and scope, and the economic and final audit of their work, to be carried out by E&Y remained adjusted. To that decision, the Company filed requests for clarification, which were partially provided.</p> <p>On March 6, 2020, an Agreement Term was signed between VALE and the State of Minas Gerais, through which the Company agreed to make resources available, through the amounts deposited in court in these ACPs, so that the State could carry out temporary contracts for 24 months, counted from the publication of such notices of the simplified processes, to meet the increase in demand in its bodies. This agreement includes vacancies that will be filled by temporary public agents by the State of Minas Gerais, FHEMIG, IMA, FUNED, IGAM, IEF, FEAM, DER, IEPHA, EMATER and EPAMIG, as well as contractors. This term was signed on March 19, 2020.</p> <p>Subsequently, the State of Minas Gerais requested the raising of R\$ 500 million and, later, an additional R\$ 1 billion, to help combat the COVID-19 pandemic. The Company agreed to the request, provided that the amounts were considered as an advance of the compensation for the damage caused by the failure of the B-1 dam, and both were deferred by the Court.</p> <p>Hearings were held on May 14, June 23 and July 28, and the parties were in constant negotiation to solve the outstanding issues of the deal.</p> <p>On June 22, a decision was issued ordering the parties to comment on which requests they understood to be technical evidence to be produced and for which there could be an early judgment of the merits. The plaintiffs presented their manifestation on August 25, when they filed a request, in a matter of interlocutory relief, for a freeze of R\$ 26 billion in Vale's accounts, in guarantee of the reimbursement of alleged economic losses of the State. They also formulated a request for an immediate conviction of Vale in the payment of R\$ 28 million in collective mental distress.</p> <p>On July 23, 2020, the interlocutory appeals brought by the Public Prosecutor's Office and Vale against the decision of July 9, 2019 were devoid.</p> <p>On July 28, 2020, a conciliation hearing was held in which the parties discussed issues relating to the cases, notably the supply of water to the affected population and the claims of traditional communities.</p> <p>On September 3, 2020, a new conciliation hearing was held in which the parties discussed case-related issues, notably the online access platform provided by Vale to the Justice Institutions to obtain emergency payment data. Questions were also addressed regarding the works for the construction of a new water collection structure on the Paraopeba River. On the same date, the State filed a petition for reimbursement of expenses with temporary contracting, subject to the agreement approved by law on March 19, 2020.</p> <p>On October 5, 2020, a decision was issued determining the transfer of resources to the cost of temporary contracts in August to the State of Minas Gerais. The Court also decided to refuse the request to freeze R\$ 26 billion from Vale's accounts, considering the collaborative behavior the defendant has been showing in the process.</p> <p>On October 6, 2020, a conciliation hearing was held in which the parties discussed the issues related to the process, specifically the supply of fresh water and water for human consumption – for which technical verification visits were designated – and the access, by technical advisory, to the information of the digital platform regarding those affected who so authorize.</p> <p>On October 22, 2020, a mediation procedure was established before the CEJUSC-2nd degree and a conciliation hearing was held in which the present agreed to the designation of a new conciliation hearing for possible approval of an agreement to be drawn up by the parties, which shall observe the following premises: termination of requests for actions correlated with the objects of the agreement; the parties shall compose glossary for the drafting of the agreement; organised participation of the population in the draft to be presented will be ensured; agreements previously concluded in full; the ceiling of the agreement</p>
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	<p>will include only actions of repair and socioeconomic compensation and environmental compensation of the damage already known; obligations to pay shall be paid immediately after the obligation has been complied with; agreement will not deal with the anticipation of administrative or criminal liability.</p> <p>In the following days and weeks, mediation meetings of the parties were held with the CEJUSC-2nd degree of the Court of Justice of Minas Gerais for negotiations aimed at a possible global agreement.</p> <p>On November 17, 2020, a new mediation hearing was held at CEJUSC-2nd degree in which progress in the negotiations was reported, and Vale undertook to extend emergency aid until December 30, 2020. The benefit was extended two more times before the signing of the Global Agreement: on December 9, 2020 and January 29, 2021, until the end of February 2021.</p> <p>On November 24, 2020, a decision was issued approving the accountability submitted by the State and authorizing the deduction of the amount of R\$ 7,357,249.98 in future claims for reimbursement.</p> <p>In the following weeks, new mediation meetings of the parties were held with the CEJUSC-2nd degree of the Court of Justice of Minas Gerais for negotiations aimed at a possible global agreement.</p> <p>On February 4, 2021, a mediation hearing was held in which the parties submitted the final draft agreement for signature and subsequent judicial approval. The Global Agreement, concluded with the State of Minas Gerais, the Public Defender's Office of the State of Minas Gerais and the Federal and Public Prosecution Office of the State of Minas Gerais has as its object the complete repair of collective environmental and social damage resulting from the failure of the B-1 dam in Brumadinho (MG), in the amount of R\$ 37,689,767,329.00 (thirty-seven billion, six hundred and eighty-nine million, seven hundred and sixty-seven thousand and three hundred and twenty-nine reais). To this do so, the agreement includes an environmental recovery program, environmental compensation projects for the already known damages and socioeconomic repair projects for all collective and diffuse damage caused by the failure. Specifically in this socioeconomic aspect, the agreement includes demand projects of the affected communities (allocation of R\$ 3 billion to execute projects to be defined by the affected themselves and implemented according to their decision and management of the Justice Institutions), income transfer program to the affected population (with R\$ 4.4 billion) - in place of the current payment of emergency aid - and projects for Brumadinho and other municipalities affected by the Paraopeba Basin, in addition to resources for the execution, by the government of the State of Minas Gerais, of the Urban Mobility Program and the Public Service Strengthening Program. In socioenvironmental repair, the agreement establishes the guidelines and governance for the implementation, by Vale, of the Environmental Recovery Plan, as well as projects to be implemented to compensate for the already known environmental damage and projects aimed at the water security of the impacted region.</p> <p>At the same hearing, the judge delivered a decision approving the Global Agreement, in view of providing full compensation for the damage, strengthening public services in reparation measures and centrality of those affected.</p> <p>In the Global Agreement, the parties have ratified the various Terms of Agreement signed by Vale with the various Justice Institutions and/or the State of Minas Gerais to repair the damage caused by the collapse of Brumadinho. Among these agreements, the Term of Engagement concluded between Vale and the Public Defender's Office of the State of Minas Gerais on 04.05.2019 was ratified, in which the bases were established for the repair of individual damages caused by the disruption.</p> <p>They were also ratified: the TAC Pará de Minas, signed on 03.15 and approved on 04.04.19; the COPASA TAC, signed on 07.08.19 and approved on 06.08.19, the Psychosocial TAC, signed on 02.18 and approved on 08.20.19; o Additive to Psychosocial TAC, signed on 07.29.19 and approved on 08.20.19; o Additive to TAC COPASA, signed on 10.21.19 and approved on 10.24.19; tac water management, signed on 13.11.19 and approved on 11.21.19; the Term of Engagement Water Resilience, signed on 02.07.20 and approved on 02.13.20; the Union TAC, signed on 13.03.19 and approved on 15.03.19 (the extension was on 13.04.20); the TAC signed at a judicial hearing on 19.06.19 (João Monlevade); the Civil Defense TAC, signed on 11.20.20; the TAC Bombeiros, signed on 17.11.2020; the Substitute Agreement Term of Environmental Penalty, signed on</p>
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	<p>07.11.19 and approved on 03.27.20; the Environmental Fine Substitute Agreement - IBAMA, signed on 07.06.20 and approved on 08.27.20; and the AECOM TAC, signed on 02.15 and approved on 04.04.19.</p> <p>The Global Agreement also re-ratified the Agreement Term for Temporary Contracts signed on 02.28.20 and approved on 03.19.20, in view of the parties establishing a final value to be made available by Vale in compliance with the obligation, and managed by the State of Minas Gerais, as well as the Agreement for the Procedures for the Recovery and Supply of Emergency Measures to the State of Minas Gerais, signed and ratified on March 7, 2019. In addition, the Global Agreement renewed the IGAM Term of Engagement signed on 13.11.19 and approved on 11.21.19. Finally, the Global Agreement extinguished the General Fauna TAC signed on 09.23.19 and approved on 11.10.19, as well as the TAP, signed and approved on 02.20.19, with its extension of 11.28.19.</p> <p>Due to the Global Agreement, all guarantees previously provided by VALE in the notice, including surety letter and performance bond, in addition to the blocked amounts were released.</p> <p>The notices returned to the Trial Court on February 9, 2021, with the addition of the Global Agreement itself.</p> <p>The appeal brought by the ANAB is dismissed and the notices are removed from all individual claims for emergency compensation payment, together with the documents attached to them.</p> <p>On June 7, 2021, there was the certification of the res judicata of the judgment that approved the Global Agreement.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	With the conclusion of the Global Agreement and the full delimitation of environmental compensation and compensation for collective and diffuse socio-economic damage, the judicial discussion in the ACPs will only continue with regard to the assessment and quantification of individual damages, which have been excluded from the Global Agreement and will be the subject of the judicial investigations already designated in those ACPs.
Notes	Not applicable.

19) Case no. 5012680-56.2019.8.13.0024

Court	6th Court of the Public Treasury and Government Agencies of the Court District of Belo Horizonte
Instance	Trial Court
Filed on	01/30/2019
Parties	Network of Non-Governmental Organizations of the Atlantic Rainforest (" <u>RMA</u> ") v. Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$30,000,000,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. The value cited, updated until December 31, 2020, corresponded to R\$ 30,966,684,000.00.
Main facts	<p>It is a public civil lawsuit, which object is the indemnification for collective moral damages in the amount of R\$30,000,000,000.00 and individual moral damages in the amounts of R\$1,000,000.00 or R\$500,000.00, depending on the severity of the damage. In addition, it requires the indemnification for property damage.</p> <p>Proceeding suspended since March 11, 2019 until the trial of case no. 5010709-36.2019.8.13.0024. Proceeding re-assigned to the 2nd Court of the Public Treasury and Government Agencies of the Judicial District of Belo Horizonte, due to the termination of the judiciary unit.</p> <p>In addition, there is a writ of mandamus filed against the decision of the court of the 6th Court of the Public Treasury and Government Agencies of Belo Horizonte, current 2nd Court of Public Treasury, which determined the suspension of the proceeding due to the previous pending lawsuit proposed by the State of Minas Gerais. Having the injunction requested under a writ of mandamus been rejected, the RMA filed an internal interlocutory appeal, an ordinary and special appeal. The internal appeal was not heard and the special appeal was dismissed. The ordinary appeal is pending judgment.</p>
Chances of loss	Possible.

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuits stems from the fact that it is a public civil lawsuit filed by the Network of Non-Governmental Organizations of the Atlantic Rainforest aiming at the indemnification for collective and individual moral damage, and losing the lawsuit may cause significant financial losses to the Company.
Notes	Not applicable

20) Case no. 5000045-50.2019.8.13.0054	
Court	Sole Court of the Jurisdictional District of Barão de Cocais
Instance	Trial Court
Filed on	02/25/2019
Parties	Prosecution Office of Minas Gerais ("MPMG"), Public Defender's Office of the State of Minas Gerais and Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$ 20,000.00; however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. A request was granted for freezing in the amount of R\$ 3,000,000,000.00, which adjusted for inflation until December 31, 2020, amounted to R\$ 3,245,943,000.00.
Main facts	<p>The generating fact of this lawsuit was the evacuation carried out by Vale at the dawn on February 8, 2019, determined by the National Mining Agency, of approximately 500 residents of the communities of Socorro, Tabuleiro, Piteiras and Vila Congo, all located in the Municipality of Barão de Cocais, downstream of the dam of the Gongo Soco Mine.</p> <p>It is a Provisional Remedy in Antecedent Character with an Injunction Request in defense of the human rights of environmental refugees arising from the evacuation and those who suffered material and moral damages due to the risk of failure of the tailings dam located in the municipality of Barão de Cocais.</p> <p>On February 25, 2019, an injunction was filed seeking compensation for the damages caused as a result of the aforementioned evacuation.</p> <p>An interlocutory appeal was filed by Vale against the decision, rendered on February 26 and March 1, 2019 (correcting a material error in the previous one), which partially granted the interlocutory relief requested in the statement of claim, with partial supersedeas to the appeal having been granted, to suspend the order to freeze R\$ 3 billion.</p> <p>After the filing of a petition by the MPMG, informing the risk of rupture of the Sul Superior Dam, a new preliminary decision was issued on March 25, 2019, determining the adoption of a series of measures to mitigate the damage deriving from the evacuation of the area. Then, the Company filed a new interlocutory appeal, which was also granted supersedeas, to override the part of the decision that determined the hiring of an entity to provide technical advisory to residents of Barão de Cocais and indemnify the residents of ZSS.</p> <p>Interlocutory appeals were filed by the Public Prosecution Office, and another by the Federal Public Prosecution Office against the interlocutory decision, on July 17, 2019, which only partially granted the required preliminary measures. The interlocutory appeal by the Federal Public Prosecution Office was not heard, on the grounds that the body was an illegitimate party to the filing of the appeal, as it appears in the action only as <i>amicus curiae</i>.</p> <p>In the main case records, the TAC signed between Vale, the Labor Prosecution Office, and the Public Prosecution Office of Minas Gerais was approved, with the dismissal of part of the requests contained in the statement of claim.</p> <p>On November 5, 2019, a decision was issued, partly repealing the injunction issued on March 25, 2019, with regard to requests for immediate suspension of the operation of the other structures and activities of the mining complex where the Sul Superior Dam is located, to update and submit by VALE, within 72 hours, an updated dam break study, of review by VALE, within a maximum period of 5 days, of the safety factors of all the structures of the Sul Superior mining complex, of presentation by VALE, within a maximum period of 5 days, of the action plan aimed at ensuring the stability and safety of the Sul Superior Dam. In the remainder, the appellee decision was upheld. In relation to the aforementioned claims, the case was dismissed without resolution of the merits.</p> <p>On October 26, 2020, a decision was issued determining the payment by Vale of monthly emergency aid, for an additional period of 01 year, to those affected who are displaced from their homes, as owners, owners, tenants or occupants of</p>

	<p>buildings in the Self-Rescue and Secondary Rescue Zones – in the import of 01 (one minimum wage) to each adult, 1/2 (half) minimum wage for each adolescent and 1/4 (one quarter) of minimum wage to each child, in addition to the payment of the value of a basic basket, established by DIEESE, to each family, allowing, at the end of this additional period, the reassessment of the facts and the situation of these people by the parties and the Court.</p> <p>On November 13, 2020, a decision was given in the Interlocutory Appeal deferring the suspensive effect to the appealed decision that determined the payment of emergency aid.</p> <p>On March 11, 2021, the decision was given determining the suspension of the case, due to the partial agreement related to the emergency payment, and mediation sessions are being held in the performed by a 2nd degree CEJUSC in the notices of n. 1.0000.19.038915-5/001-003-004-006 and 007.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil lawsuit filed by the Public Prosecution Office and by the Public Defender's Office of the State of Minas Gerais, aiming at the reparation and adoption of measures in case of failure of the Gongo Soco dam, and losing the lawsuit may cause significant financial losses to the Company.
Notes	Not applicable.

21) Case no. 5027434-03.2019.8.13.0024	
Court	17th Civil Court of the Court District Belo Horizonte
Instance	Trial Court
Filed on	02/26/2019
Parties	Interstate Commission for the Defense of Human Rights and Citizenship – CIDDHC and Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$ 8,710,000,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. The amount adjusted on December 31, 2020 was equivalent to R\$ 20,570,402,000.00.
Main facts	<p>Public Civil Lawsuit of obligation to do c/c reparation for collective moral damages and request for interlocutory relief. It requires the intensification of the search and rescue of the bodies of the victims of the accident in the Córrego do Feijão dam.</p> <p>On May 12, 2019, Vale filed a petition requesting the rejection of the injunction requests.</p> <p>On May 25, 2019, Vale filed a new petition, in addition to the previous one, requesting the extinction of the deed.</p> <p>On April 15, 2019, the Prosecution Office produced an opinion affirming that the jurisdiction for judgment of the lawsuit is of the District of Brumadinho.</p> <p>On April 22, 2019, a decision was rendered determining the summons of the parties to manifest on the opinion of the Prosecution Office. Vale has already presented its manifestation.</p> <p>On June 5, 2019, a CIDDHC petition was filed requesting the granting of interlocutory relief.</p> <p>On June 17, 2019, a decision was rendered declining jurisdiction, determining the reassignment of the case to the judicial district of Brumadinho.</p> <p>On August 9, 2019, a certificate was issued certifying the lack of statement by the plaintiff and the first defendant.</p> <p>On August 13, 2019, a petition was filed informing the decision of the interlocutory appeal.</p> <p>On September 5, 2019, a petition was filed reinstating the request for the granting of interlocutory relief, and on November 10, 2019, a judgment was handed down dismissing the case without resolution of merit, due to the CIDDHC's lack of standing to sue. In addition, the defendants' lack of standing to be sued and lis alibi pendens with other public-interest civil actions were recognized.</p>

	<p>On December 10, 2019, CIDDHC filed an appeal, and on February 11, 2020, Vale filed its answer brief to the appeal.</p> <p>On February 18, 2020, an order was issued upholding the decision and ordering the case records to be sent to the Court of Justice.</p> <p>On March 4, 2020, a res judicata certificate was attached to the case records of the decision that did not hear the Interlocutory Appeal filed against the decision to decline jurisdiction.</p> <p>On March 30th, Samarco added its answer brief to the appeal, and on April 1st, BHP added its answer brief to the appeal.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil lawsuit filed by the CIDDHC, aiming at a reparation and the adoption of measures due to the failure of Dams B1, BIV and BIV-A, and losing the lawsuit may cause significant financial losses the company.
Notes	Not applicable.

22) Case no. 5000901-97.2019.8.13.0188	
Court	2nd Civil Court of the Court District of Nova Lima
Instance	Trial Court
Filed on	03/14/2019
Parties	Prosecution Office, Public Defender's Office of the State of Minas Gerais and Vale S.A.
Amounts, goods or rights involved	The amount in dispute was R\$ 2,000,000,000.00; however, there are illiquid orders and/or orders involving the adoption of several measures, which of course have an economic nature. The quoted amount updated on December 31, 2020 was R\$ 2,152,340,000.00.
Main facts	<p>It is a provisional remedy in advance with an injunction request in defense of the human rights of people who were evacuated, and those who, in any way, suffered material and moral damages due to the raised level of emergency of dam B3/B4, located in the District of São Sebastião das Águas Claras - Nova Lima - MG.</p> <p>On March 15, 2019, a preliminary injunction granting the interlocutory relief requested by the MPMG, determining the freezing of R\$1 billion was rendered, in addition to the adoption of several measures. From this decision, Vale filed an interlocutory appeal, which supersedeas was fully granted. Motion for clarification was filed by the Public Defender's Office against the decision that granted supersedeas, which was rejected on June 4, 2019.</p> <p>Negative conflict of jurisdiction has arisen due to the reassignment of the appeal by the Appellate Judge. The conflict was accepted, and the jurisdiction of the Appellate Judge was determined.</p> <p>An interlocutory appeal was filed by the Public Defender's Office against the trial court decision, given the partial granting of the preliminary injunctions, whose request for attribution of supersedeas was denied. On July 01, 2019, an amendment to the statement of claim of the Public Prosecution Office was filed.</p> <p>Then, on July 2, 2019, a new preliminary decision was issued regarding the requests made in the amendment.</p> <p>A new interlocutory appeal was filed by Vale against this decision, which also had its supersedeas granted on August 9, 2019. As a result, all obligations imposed in said decision were suspended, except for the payment of food voucher and the cost of food, lodging and transportation for the evacuees. The motion for clarification filed by Vale in this regard was dismissed on September 20, 2019.</p> <p>An internal interlocutory appeal was filed by the Public Prosecution Office, aiming at amending the supersedeas granted to the preliminary decision. On February 13, 2020, Vale filed its answer brief.</p> <p>The appeals were pending judgment of the conflict of jurisdiction. After the decision, the parties were notified to present their reply briefs to the appeals.</p>

	<p>The parties jointly petitioned, on March 20, 2020, requesting the replacement of the food vouchers provided to those affected with payment, due to the emergency situation of COVID-19. After judicial approval; however, the Public Defender's Office filed a motion for clarification, claiming that the Judge did not observe the situation of economic reduction due to the coronavirus when granting the reduction in the amount to be paid to those affected. For this reason, it requires again the granting of the measure presented by the agency, that is, bank deposit without reduction in the amounts.</p> <p>On May 13, 2020, there was a judgment denying the Requests for Clarification filed by Public Defender's Office.</p> <p>On July 20, 2020, the report was presented monitoring the transition of the voucher to emergency payment by the Public Prosecutor's Office, joining the list of CRAS requested by the Public Defender's Office.</p> <p>On March 12, 2021, Vale requested the joining and approval of the Term of Engagement signed between VALE and the Public Defender's Office on March 4, 2021, which regulates and establishes broad and comprehensive criteria for the payment of cash, extrajudicial and individual compensation of individuals who were impacted by the evacuation, from which payments intake as emergency payment will not be discounted. The definition of reached for the purposes of eligibility for receipt of indemnity has been established under the terms of the agreement.</p> <p>Before deciding on the approval, the court ordered the notice of the Public Prosecution's Office to express its terms. The Public Prosecution's Office said that it was not aware of the Term of Engagement, but that it is restricted to requesting the return of families staying in hotels to their homes.</p> <p>On May 14, 2021, a decision was rendered that dismissed DPMG's request for the granting of emergency relief, on an incidental basis, alleging that the agreement entered into with MPMG on the substitute payment does not serve the interests of Macacos. In this way, requests for delivery of the value at people's homes, payment of voucher to all residents of Macacos, cost of health expenses were rejected.</p> <p>On May 25, 2021, DPMG expressed its non-opposition with respect to the agreement with the MPMG for the return of families, residing in locations outside the Self-Rescue Zone, previously removed and who are currently in temporary hotels / housing.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil lawsuit filed by the Public Prosecution Office and by the Public Defender's Office of the State of Minas Gerais, aiming at the reparation and adoption of measures in case of failure of the B3/B4 dam, and losing the lawsuit may cause significant financial losses to the Company.
Notes	Not applicable

23) Case n. 5036049-79.2019.8.13.0024	
Court	2nd Court of the Public Treasury and Government Agencies of the Judicial District of Belo Horizonte
Instance	Trial Court
Filed on	03/21/2019
Parties	Association of Servants of the Fire Department and Military Police of the State of Minas Gerais - ASCOBOM/MG v. Vale S.A. and the State of Minas Gerais
Amounts, goods or rights involved	The amount attributed to the case was R\$100,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character.
Main facts	<p>It is a public civil lawsuit managed by the Association, aiming at the protection of all the military firefighters who worked in the search and rescue activities in the city of Brumadinho, due to the environmental tragedy.</p> <p>Still without the appraisal of the injunction, the State of Minas Gerais requested the referral of the case records to the 6th Court of Public Treasury and Government Agencies of the Judicial District of Belo Horizonte, current 2nd Court of Public Treasury, so that the preliminary injunction could be considered in conjunction with the decisions of public-interest civil actions no. 5046408-67.2019.8.13.0024 and no. 5026408-67.2019.8.13.0024. The</p>

	request was accepted on September 9, 2019 and the case records were sent to the 6th Court of Public Treasury and Government Agencies of Belo Horizonte, current 2nd Court of Public Treasury. On October 16, 2020, a decision was taken to suspend the proceedings until the trial of the above-mentioned cases.
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil lawsuit filed by the Association, aiming at the protection of all the military firefighters who worked in the search and rescue activities in the city of Brumadinho, due to the environmental tragedy, and losing the lawsuit may cause significant financial losses to the Company.
Notes	Not applicable.

24) Case no. 1:19-cv-526-RJD-SJB	
Court	Nova York Federal Court
Instance	United States District Court for the Eastern District of New York
Filed on	01/28/2019 (<i>First Complaint</i>) and 10/25/2019 (<i>"Amended Complaint"</i>).
Parties	Colleges of Applied Arts and Technology Pensions Plan ("Plaintiffs") and Vale S.A., Murilo Ferreira, Fabio Schvartsman, Luciano Siani, Peter Poppinga and Luis Eduardo Osorio ("Defendants").
Amounts, goods or rights involved	The plaintiffs did not specify the values of the alleged damages.
Main facts	<p>Vale and some of its current and former executives were considered defendants in class actions referring to securities before the New York Federal Court, moved by investors holding <i>American Depositary Receipts</i> issued by Vale, base of the American federal law on securities (<i>U.S. federal securities laws</i>). In legal suits it is alleged that Vale made false and deceitful affidavits or did not divulge the risks and dangers of the operations of Barragem I and the adequacy of the related programs and procedures. The plaintiffs did not specify a value for the alleged damages, in these suits, they have only motioned for the conviction of the defendants in reimbursing the damages suffered, which shall be calculated during the expertise evaluation stage.</p> <p>On May 13, 2019, the Judge of the District Court of the East District of New York City decided on the consolidation of these suits and assigned the lead plaintiff for the case and respective attorney.</p> <p>On October 25, 2019, the lead plaintiff of the action filed an initial complaint amended and consolidated, which shall be the statement of claim in the suit.</p> <p>On December 13, 2019, Vale filed an opposition to the amended and consolidated motion to dismiss, alleging basically (i) that the cause to ask from the plaintiff does not justify a Securities Fraud Claim; (ii) that the plaintiff did not identify which omissions had been perpetrated by the defendants nor demonstrated that the alleged false statements were, in fact, false at the time in which they were published; (iii) that the plaintiff did not demonstrate malice from the defendants in swindling the market; and (iv) that the plaintiff did not demonstrate any causality nexus between the initial allegations and alleged damages which may have authorized any claims for compensation. The individual defendants were still not formally mentioned and, therefore, the defense was submitted only on behalf of the Company, and individual defendants must consolidate their defenses in a timely manner.</p> <p>On January 31, 2020, the Plaintiff filed an Opposition to the Motion to Dismiss from Vale.</p> <p>On February 21, 2020, Vale filed a counter-defense to the opposition.</p> <p>On May 20, 2020, the Court delivered a decision to dismiss, in part, the Preliminary Objection filed by Vale (Motion to Dismiss), and finding the action extinguished only in relation to some of the Plaintiff's allegations.</p> <p>In this sense, part of the statements cited by the Plaintiff were maintained by the decision of the Court, and, with this, the action will proceed to the stage of discovery, still without a term defined by the court.</p> <p>On August 27, 2020, the individual defendants ("individual defendants") filed a joint defense ("Joint Answer") to the supplemented and consolidated initial petition presented by the Plaintiff in October 2019, ratifying the previous defense presented by the Company.</p>

	<p>The Discovery phase is underway, with production of documentary evidence by the parties, still with no term for the closure of this phase. In parallel, on February 15, 2021, the Plaintiff filed a Motion for Class Certification.</p> <p>On June 9, 2021, Vale submitted its Opposition to Class Certification. The Plaintiff's deadline for submitting a reply to our objection (Reply to Opposition to Class Certification) will end on June 4, 2021.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Eventual loss could result in financial damages and in the image and reputation of the Company.
Notes	Not applicable.

25) Case n. 5002549-18.2019.8.13.0090	
Court	1st Civil, Criminal and Juvenile Court of the District of Brumadinho
Instance	Trial Court
Filed on	10/17/2019
Parties	Public Prosecutor's Office of Minas Gerais ("MPMG") and Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$ 31,747,662,604.74
Main facts	<p>The MPMG proposed a suit against Vale, based on Law 12.846/2013, because, according to the opinion of the Public Prosecutor's Office, Vale would have, through the actions of its employees, hindered activities of supervision of Public Agencies in the Mining Complex of the Córrego do Feijão, where the BI Dam was located, thus making the Company liable based on the administrative and civil sanctions provided for in Articles 6 and 19 of the said Law. The responsible court granted, on May 26, 2020, the MP's claim for an injunction, determining the presentation by the Company of guarantees in the total amount of R\$7,931,887,500.00, within ten (10) days.</p> <p>In June 2020, Vale filed an interlocutory appeal to oppose to this decision and the Court of Justice of Minas Gerais, through the deputy judge, suspended the effects of the injunction. There is a negative conflict of jurisdiction not yet judged by the Court of Justice of Minas Gerais. On June 8, 2020, Vale presented its answer in the Trial Court. Brumadinho's court accepted one of Vale's preliminary arguments, declared itself incompetent to judge the case and ordered the referral of the case to the 2nd Court of the Public Treasury of Belo Horizonte. Vale filed requests for clarification to address the contradiction in this decision, which were accepted to determine the sending of the documents to the 1st Court of Public Treasury. The Public Prosecutor's Office of Minas Gerais filed an Interlocutory Appeal before the Court of Justice to defend Brumadinho's jurisdiction. Due to the conflict of jurisdiction established when Vale's Interlocutory Appeal was filed in June 2020, the Public Prosecutor's Office's Interlocutory Appeal was also not tried and awaits the definition of the class competent to judge both appeals.</p>
Chances of loss	Remote.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the action stems from the fact that it is an Action for Damages filed by the Public Prosecution's Office of MG, based on Law 12.846/2013. In addition to the reputational risk to VALE, the judgment may order the Company to pay a fine calculated on the annual gross revenue of 2018, in the percentage of 5 to 20%.
Notes	Not applicable.

26) Case n. 5003202-20.2019.8.13.0090	
Court	1st Civil, Criminal and Juvenile Court of the District of Brumadinho
Instance	Trial Court
Filed on	05/12/2019
Parties	Norma Saraiva Soares and others ("Plaintiffs"); Vale S.A., COPASA, and the State of Minas Gerais ("Defendants")
Amounts, goods or rights involved	The amount attributed to the case was R\$ 231,000.00. The amount updated on December 31, 2020 corresponded to R\$ 243,007.15. This issue has implications on the water supply works of the metropolitan region of Belo Horizonte (obligation signed in "TC Água", with MPMG).

Main facts	<p>The Plaintiffs proposed a Declaratory Judgement Action of Nullity of Expropriatory Decree with Request for the Display of Documents, requiring injunction the suspension of effects of State Decree No. 464/2019, the display of documents of the administrative process that originated the Decree and, alternatively, the determination for Vale to deposit judicially R\$ 5,000,000.00 (five million reais) in order to pay compensation. They requested, in the end, the declaration of nullity of the Decree. This Decree declared the public utility of several properties in Brumadinho/MG, for the purpose of implementing the new water collection system of the Paraopeba River, necessary for the water supply of the metropolitan region of Belo Horizonte, which is the object of the Term of Commitment signed between Vale and the Public Prosecutor's Office of Minas Gerais ("TC Água").</p> <p>Any declaration of nullity of the Decree would remove the nature of public utility of the properties. As a consequence, it could prevent the execution of works and activities in the areas, necessary for the implementation and maintenance of the new water collection network object of the "TC Água".</p> <p>On January 15, 2020, the Plaintiffs amended the initial action, giving up only the request for Vale to deposit R\$ 5,000,000.00 in court.</p> <p>On May 12, 2020, Vale filed a preliminary statement requesting the rejection of the injunction requests by the Plaintiffs.</p> <p>On March 9, 2020, there was a decision rejecting the injunction claims of the Plaintiffs.</p> <p>On April 3, 2020, the Plaintiffs filed an Interlocutory Appeal against the decision rejecting the injunction.</p> <p>On April 7, 2020, the State of Minas Gerais filed an answer, asking for the recognition of its illegitimacy to appear as a Defendant in the case and the trial for the dismissal of the action.</p> <p>On April 13, 2020, Vale filed an Answer to the Interlocutory Appeal, requesting its rejection. COPASA and State of Minas Gerais filed an Answer in the same sense (on May 14 and June 9, 2020, respectively).</p> <p>On April 15, 2020, the Court of Justice of Minas Gerais rejected the application for appellate relief filed by the Plaintiffs/Appellants.</p> <p>On April 28, 2020, COPASA filed an answer, seeking a judgment of dismissal of the action.</p> <p>On May 21, 2020, Vale filed an answer, asking for the recognition of its illegitimacy to appear as a Defendant in the case and the trial for the dismissal of the action.</p> <p>Made in the fact-finding stage, awaiting court decision on request for early trial of the dispute.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	<p>Invaluable. The relevance of the action stems from the matter under discussion, since the continuity of the validity of the Decree is essential for the water supply works of the metropolitan region of Belo Horizonte and compliance with the TC Água signed with the MPMG. There are, therefore, implications to the Company's image. The object of the Decree is the declaration of the public utility of several properties in Brumadinho/MG, for the purpose of implementing the new water collection system of the Paraopeba River, necessary for the water supply of the metropolitan region of Belo Horizonte.</p> <p>Any declaration of nullity of the Decree would remove the nature of public utility of the properties. As a consequence, it could prevent the execution of works and activities in the areas, necessary for the implementation and maintenance of the new water collection network object of the "TC Água".</p>
Notes	Not applicable.

27) Case n. 1000504-03.2020.4.01.3822

Court	12th Federal Civil and Agrarian Court of the SJMG of the Judicial District of Belo Horizonte
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Instance	Trial Court
Filed on	03/12/2020
Parties	Federal Prosecution Office, Municipality of Barra Longa, Samarco Mineração, Fundação Renova, Vale, BHP Billiton Ltda.
Amounts, goods or rights involved	The value attributed to the cause was R\$32,588,712.00, which, updated until December 2020, represents R\$34,395,102.34
Main facts	<p>This is a public-interest civil action filed by the Public Prosecution Office, through which it seeks to have the defendants ordered to pay all the costs with the implementation of the Barra Longa Health Action Plan, in favor of the Unified Health System - SUS, including through transfers that are necessary to the municipality of Barra Longa.</p> <p>On March 30, 2020, Renova filed a petition requesting the rejection of the request for provisional relief of urgency and that the competence of the 12th Federal Court of Belo Horizonte/MG and consequent referral is recognized by that Court.</p> <p>On April 13, 2020, the Municipality of Barra Longa applied for registration as an interested third party.</p> <p>On April 14, 2020, the MPF Opinion was filed, defending the jurisdiction of the Judicial Subsection of Ponte Nova and reiterating the request for granting the urgency relief.</p> <p>On 16 April 2020, a decision was issued recognizing the lack of jurisdiction of the Judicial Subsection of Ponte Nova, determining the referral of the case to the 12th Federal Court of Belo Horizonte and not recognizing the claims for injunctions.</p> <p>On May 26, 2020, the companies filed answers supporting the illegitimacy of the Federal Prosecutor's Office to propose the action.</p> <p>On 29 July 2020, a judgment was delivered declaring that the process was terminated because of the lack of any procedural requirements, in accepting the active lack of standing of the MPF. On the same date, the Municipality of Barra Longa proposed a similar action in the amount of R\$ 2,800,000.00 (no. 1024832-63.2020.4.01.3800), requiring the full cost of the implementation of the Barra Longa Health Action Plan, in favor of the Unified Health System – SUS, including through transfers that are necessary to the municipality of Barra Longa; and that the Renova Foundation be compelled to continue costing and transshipment of solid waste, as well as give final destination to them, until the CIF approves the request made by the Municipality of Barra Longa, and is delivered to the transfer station duly licensed to the Municipality. On September 10, 2020, the Agreement Term signed between the parties on the implementation of the Barra Longa Health Plan was approved by judgment; and, on October 5, 2020, the Agreement on the implementation of a definitive solution on the transshipment and final disposal of solid waste was approved, and the process was deemed to be extinguished.</p> <p>On 19 August 2020, the MPF filed an Appeal against the Judgment. The companies submitted their Reply Briefs on February 10, 2021.</p> <p>On March 19, 2021, the MPF requested that the case be referred immediately to the Federal Regional Court of the 1st Region, pursuant to paragraph 3 of art. 1,010, of CPC.</p>
Chances of loss	Remote.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public-interest civil action filed by the Public Prosecution's Office, requiring the funding of the implementation of the Health Action Plan, in the context of compensation for damage caused by the collapse of the Fundão dam.
Notes	Not applicable.

28) Case n. 5000885-66.2020.8.13.0461

Instance	Trial Court
Filed on	04/07/2020
Parties	Prosecution Office of the State of Minas Gerais v. Vale S.A.

Amounts, goods or rights involved	The amount attributed to the case was R\$ 1,000,000,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character.
Main facts	<p>It is a provisional remedy in advance, assigned to the same judge presiding over a connected lawsuit to ACP Doutor (no. 5000435-60.2019.8.13.0461), aiming at the proper protection of individual, collective and diffuse economic, social and cultural rights of the existing communities downstream the Doutor dam, belonging to the Timbopeba Mine complex, which were surprised by a compulsory removal during the traffic restrictions imposed due to the pandemic of the new coronavirus.</p> <p>On April 13, 2020, a decision was issued determining the random assignment of the action, as there is no relation between its requests and the other action to which it was linked. Then, the case records were assigned to the 1st Civil Court of the Judicial District of Ouro Preto. Vale filed a statement on the same date.</p> <p>On April 14, 2020, the required protection was partially granted, imposing on Vale the fulfillment of several measures, as well as freeze, through BACENJUD, of R\$ 50 million.</p> <p>On May 8, 2020, Vale filed an answer.</p> <p>On July 2, 2020, an amendment to the statement of claim of the Public Prosecution Office was filed. On June 15, 2020, a decision was issued deferring in part the main claims made in the statement, as well as those for urgent relief, increasing the amount of the freeze previously granted to R\$ 100 million. On July 01, 2020, Vale filed an answer to the statement.</p> <p>On 10 September 2020, a decision was passed in which the authors' claims were partially granted, recognizing Vale's liability for the damage caused by the process of removing the families resident in the area to be potentially affected in the event of the collapse of the Doctor dam in the District of Antônio Pereira in Ouro Preto and, consequently, condemning it to full reparation. It also reversed the burden of proof and rectified the process. On September 28, 2020, Vale filed the Requests for Clarification against such decision. On October 2, 2020, the Public Prosecutor's Office filed Requests for Clarification.</p> <p>On October 15, 2020, the Public Prosecutor's Office presented the reply briefs to the Internal Interlocutory Appeal brought by Vale. On 26 October 2020, Vale presented the reply briefs to the Requests brought by MPMG.</p> <p>On November 15, 2020, a decision was given taking cognizance of the Requests for Clarification and giving partial provision to the appeal of the first appellant (VALE S.A) and full provision to the appeal of the second appellant (Public Prosecutor's Office of the State of Minas Gerais).</p> <p>On December 17, 2020, a letter was filed requesting the transfer of R\$ 50,000,000.00, deposited in judicial account no. 2500118674749, as well as its legal additions, if any, for Vale's benefit.</p> <p>On March 22, 2021, an order was issued approving the choice of the entity <i>Instituto Guaicury</i> for the execution of independent technical advisory activities and determining Vale's notice to make the judicial deposit in the amount of R\$ 41,678.00, as advance fees.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil lawsuit filed by the Public Prosecution Office and by the Public Defender's Office of the State of Minas Gerais, aiming at the reparation and adoption of measures in case of failure of the Gongo Soco dam, and losing the lawsuit may cause significant financial losses to the Company.
Notes	Not Applicable.

29) Case no. 1035519-02.2020.4.01.3800	
Court	14th Federal Civil Court of the SJMG/TRF1
Instance	Trial Court
Filed on	08/31/2020
Parties	FEDERAL PROSECUTOR'S OFFICE- MPF (plaintiff), VALE (defendant), CVM (defendant) and ANM (defendant)
Amounts, goods or rights	The amount attributed to the case was R\$20,000,000.00, but in practice, it is

involved	invaluable, given that the MPF requested judicial intervention in VALE's governance system.
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office in the face of Vale S.A., the National Mining Agency – ANM and the Brazilian Securities and Exchange Commission (CVM), requiring the condemnation of the defendant Vale S.A. to implement a complete restructuring of its internal policies of security and disaster prevention, through judicial intervention in its governance system, with the preparation and implementation of a governance restructuring work plan, as well as the appointment of an intervenor and the hiring of an independent audit, at VALE's expense. Finally, it requested, as a compulsory measure, the prohibition of the payment of dividends or interest on equity. The plaintiff claims that VALE has developed an internal culture of disregard for environmental and human risks arising from the activity it performs. With this, it takes advantage of the profit of its operations and, at the same time, puts society at risk, suffering from the effects of the irresponsibility of the mining company, as in the disasters of Mariana and Brumadinho.</p> <p>VALE presented its answer on October 28, 2020. ANM and CVM filed an answer on November 5, 2020 and November 20, 2020, respectively.</p> <p>After analyzing the arguments, on March 5, 2021, the court delivered a judgment dismissing the requests of the Federal Prosecutor's Office.</p>
Chances of loss	Remote
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Immeasurable, once it is a request, from the MPF, for judicial intervention in VALE's governance system.
Notes	The judgment has not yet become final, and may be the subject of an appeal by the MPF.

(iv) Environmental

As of December 31, 2020, the Company's consolidated financial statements were provisioned, amounting to R\$ 56 millions to meet the probable losses of environmental processes.

The tables below contain an individual description of the environmental lawsuits regarded as relevant for the businesses of the Company and/or its controlled companies.

1) Case no. 0317.02.002974-8 - 0029748-94.2002.8.13.0317	
Court	2nd Civil Court of the Court District of Itabira - Minas Gerais
Instance	Trial Court
Filed on	9/26/1996
Parties	Government of the City of Itabira (Plaintiff) and Vale (Defendant)
Amounts, goods or rights involved	R\$ 7,139,048,461.89 As at December 31, 2020.
Main facts	<p>The city of Itabira claims indemnification for the expenditures it might have incurred with public services rendered as a consequence of Vale's mining operations.</p> <p>The proceeding was suspended on that occasion, as it awaited the trial of a writ of mandamus filed by Vale so that a favorable evidence produced in another proceeding be used in this proceeding (item 2 below).</p> <p>In January 2012, the writ of mandamus was judged to the detriment of Vale. However, this proceeding remained suspended at that time, since the first-instance court had not yet received any information from the Court of Justice of Minas Gerais related to the judgment of the writ of mandamus. Furthermore, the parties filed a joint petition on March 12, 2013 asking for the action to be put in abeyance until an agreement was reached.</p> <p>On March 27, 2014, the proceedings were stayed by an agreement between the parties, but it was later resumed as the parties failed to reach an agreement.</p> <p>On November 19, 2015 an order was published asking the City of Itabira to inform of the judgment of the writ of mandamus.</p>

	<p>On March 29, 2016, the City of Itabira informed that Writ of Mandamus no. 1.0000.07.465984-8/000 was denied and summoned the already appointed Expert to produce an expert testimony.</p> <p>On June 12, 2017, the subpoena of the municipality of Itabira was determined to express its opinion on the proposal of fees, under penalty of debarment of the evidence.</p> <p>On November 20, 2017, the records of the municipality of Itabira were received, in which the plaintiff requested the appointment of a conciliation hearing, with the purpose of reaching a composition between the parties.</p> <p>On June 11, 2018, the records were handed over to the Attorney General's Office and returned on June 20, 2018.</p> <p>On August 15, 2018, the records were closed for the procedural order.</p> <p>On October 14, 2019, a settlement hearing among the parties was held, but no settlement was reached. Awaiting the case recovery and eventual expert evidence.</p> <p>On February 12, 2020, the records were taken to the municipal prosecution's office.</p> <p>On March 3, 2020, the Municipality of Itabira filed a petition, contesting the proposal of fees presented by the appointed expert, requiring at the end the setting of fees in compatible amounts for carrying out the expertise, and if it is not possible, requiring the appointment of another professional.</p> <p>On March 6, 2020, Vale filed a statement requiring the Court to call the order, deciding on the preclusion of the expert evidence required by the Municipality since, when noticed for payment of fees, the Municipality remained inert.</p> <p>On February 3, 2021, the records were sent to the Municipal Prosecutor's Office and received on February 12, 2021.</p> <p>On February 25, 2021, the statement records were included, then, the completed records for order</p>
Chances of loss	Total amount as split between a possible loss (15%) and a remote loss (85%).
Analysis of impact in the case of losing the suit / Reasons this case is significant to the Company	<p>An occasional unfavorable decision in the lawsuit would cause significant financial losses to the Company, but there is no risk that the operations might stop.</p> <p>Considering that the purpose of the public civil action is declaratory in nature, there is no way to estimate, <i>a priori</i>, the total economic value involved in the cause.</p>
Notes	Not applicable.

2) Case no. 0317.02.007032-0	
Court	1 st Civil Court of the Court District of Itabira - Minas Gerais
Instance	Trial Court
Filed on	8/22/1996
Parties	Government of the City of Itabira (Plaintiff) and Vale (Defendant)
Amounts, goods or rights involved	R\$ 6,165,195,420.27 (on December 31, 2020)
Main facts	<p>The action initiated by the City of Itabira, in the State of Minas Gerais, claiming that the operations in the iron mines at Itabira caused environmental and social damages and demanding the restoration of the location and the conduction of environmental recovery programs in the region. An expert examined was made for this action and the expert report jointly issued by the Brazilian Environment and Natural Resources Institute ("IBAMA") and the State Environment Foundation ("FEAM") was favorable to Vale. However, the City requested new expert evidence to be produced, which was accepted by the judge. For this purpose, a multidisciplinary from the Lavras Federal University was designated. On November 6, 2012 a conciliation hearing was held, where the request for staying the proceedings until May 6, 2013 was accepted so that the parties would try to reach an agreement. In view of the length of the suspension period, the Municipality has been noticed to express its views on the value of the expert fees. In February 2014, the City of Itabira submitted its declaration</p>

	<p>regarding the proposal of expert's fees and asked the amount of R\$1,604,000.00 to be reviewed, considering that the City may provide some inputs, such as accommodations, meals and the plants, maps or sketches.</p> <p>On May 7, 2015 a judicial order was published summoning the appointed expert to express himself and inform on the possibility of reducing the expert's fees within ten (10) days. On January 19, 2016, the declaration petition was filed by Vale, which confirmed that the expert examination to be prepared for this action had been requested by the City of Itabira and, for that reason, the Company is not responsible for paying the expert's fees, in accordance with Article 33 of the Brazilian Code of Civil Procedure. 33 do Case Code. On February 15, 2016 it was informed that the deadline for the Plaintiff—the City of Itabira—for filing its declaration had expired without any declaration being submitted. On June 6, 2016 another expert was appointed to replace the former one and the presentation of the respective fees is still pending. On January 30, 2017 the case records were sent to the City Treasury Attorney's Office. On January 30, 2018, the records were prepared for a judicial order.</p> <p>On June 11, 2018, the records were handed over to the Itabira Municipal Tax Attorney and returned on June 20, 2018, with a request for a conciliation hearing.</p> <p>On February 14, 2019, a conciliation hearing was held. Vale expressed interest in conciliating, which resulted in the suspension of the proceeding until the technical report was joined in the records of Public Civil Action No. 0029771-40.2002.8.13.0317, at which time Vale will meet with the municipality and the Public Prosecutor to try to conciliate.</p> <p>On February 22, 2019, a certificate was attached to the file, attesting the distribution dates of the lawsuits in which the municipality of Itabira and the company are held, and have cause for request and similar request.</p> <p>On March 23, 2019, the case was suspended by judicial decision.</p> <p>On August 23, 2019, the decision was given determining the suspension of the case until the report is attached to the case 0317.02.0029977-1.</p> <p>On November 21, 2019, the records were taken to the Public Prosecutor's Office.</p> <p>On December 31st, 2019, the records from the Public Prosecution's Office were received.</p> <p>On August 10, 2020, the dispatch from the Letter (pending the obtaining of copies, bearing in mind that due to the pandemic, secretarial assistance was and remains unavailable).</p>
Chances of loss	Total amount as split between a possible loss (7%) and a remote loss (93%).
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	<p>An occasional unfavorable decision in the lawsuit would cause significant financial losses to the Company, but there is no risk that the operations might stop.</p> <p>Considering that the purpose of the public civil action is declaratory in nature, there is no way to estimate, a priori, the total economic value involved in the cause.</p>
Notes	Not applicable.

3) Case no. 26.295.47.2012.4.3700	
Court	8 th Federal Court of São Luís - Maranhão
Instance	Trial Court
Filed on	7/22/2012
Parties	Sociedade Maranhense de Direitos Humanos, Conselho Indigenista Missionário (CIMI), Centro de Cultura Negra do Maranhão - CNN (Plaintiffs) and IBAMA and VALE (Defendants).
Amounts, goods or rights involved	Invaluable.
Main facts	The aim of a public civil action is to suspend the licensing process for the expansion of the Carajás railway. For that purpose, the Plaintiffs claim that the environmental licenses granted by IBAMA were based on an environmental study that was insufficient to characterize – globally - the impacts caused by

	<p>the works, in addition to fragmenting the environmental licenses in order to replace the company's obligation with the environmental compensation due as a consequence of the installation of the site. Finally, after some criticism against the required licensing model, the Plaintiffs required a declaration of invalidity of the licensing process.</p> <p>In July 2012, the court granted the requested injunction by determining the suspension of all the building works and operations related to the expansion of the Carajás railway. Both Vale and IBAMA lodged appeals (bills of review) intending to revert the judicial decision, as well as submitted to the President of the TRF (Regional Federal Court) of the 1st Region (DF) a request for an injunction suspension by claiming (i) the risk of serious, irreversible economic losses that might occur if said injunction remained in force, as well as (ii) the fact that the environmental study prepared by Vale fully complied with CONAMA Resolution 237, so that there was no justification for the Plaintiff's request related to the risk of a serious social and environmental unbalance. The request for suspension was accepted by the President of the TRF of the 1st Region and the Plaintiffs lodged an appeal against that decision. However, they were not successful in it and the decision in favor of Vale was maintained.</p> <p>At the first instance, both Vale and IBAMA submitted their defenses claiming (a) the regularity of the licensing process, (b) that the study clearly defined all the diagnoses as to the impacts on the areas and communities under direct or indirect influence of the works (including traditional communities), and (c) the need for respecting the competence and technical discretion of IBAMA to conduct and complete the environmental study. In a recent decision, a federal judge has accepted the Federal Public Defender's request to become a Plaintiff in the action. Vale lodged an appeal against that decision, which was in line with the opinion issued by the Federal Prosecutor Office ("MPF"), by stating that the Public Defender's Office lacked legitimacy to appear in the action. The appealed decision was maintained, and the succession term was re-established for the Public Defender's Office, IBAMA and VALE to submit their oppositions. The Public Defender's Office corroborated the annulment of the Licensing and IBAMA was requested to submit new information on the operation of the railway and how the families would be removed from the area. After IBAMA declaration on August 12, 2014, the records were sent to the judge's analysis. The injunction was rejected on September 15, 2014, and the State of Pará stated that it had no interest in the lawsuit. On February 27, 2015, an order was published informing the beginning of the term for Vale to submit its declaration on the licensing process produced by IBAMA.</p> <p>On March 17, 2016 the production of expert evidence was accepted, as requested by Vale, which presented requisites and technical assistants on April 5, 2016.</p> <p>On December 5, 2016, the MPF filed a petition opposing to the requisites presented by Vale.</p> <p>On May 23, 2017, the records were prepared for the judge to decide on the acceptance of the requisites presented by Vale and the opposition submitted by the MPF.</p> <p>The parties are still awaiting the above-mentioned order to be handed down and the requested expert examination to be provided.</p> <p>The judicial expertise was designated for July 22, 2019, whose scope will be the analysis and verification of regularity of documents and information presented in the process of environmental licensing of the enterprise.</p> <p>The experts petitioned in the records for an extension of the date for November 14, 2019, and the Judge granted the petition on the same day.</p> <p>On December 9, 2020, the Expert Report was presented, which was in favor of the Company in the main aspects. For all Vale's questions, the report responded affirmatively and favorably. Regarding the consultation and impacts on the communities, the report states that there were meetings and the study met the reference term. The parties have not yet been noticed to comment on the report.</p> <p>It is awaited migration of the process to the PJE to make manifestation protocol to the report, since physical petitioning in TRF1 is suspended by ordinance that restricted face-to-face activities throughout the Court due to COVID-19.</p>
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Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Despite the conclusion of the EFC expansion works, an eventual decision against Vale may affect the licensing process for the EFC expansion, as well as impact VALE's logistic operations for the implementation of the distribution plan for the production originated from the S11D Project.
Notes	Not applicable.

4) Case no. 0013741-46.2017.8.08.0024	
Court	5 th State Court of the Treasury, City, Public Registers, Environment and Health
Instance	Trial Court
Filed on	5/25/2017
Parties	Associação Juntos SOS ES Ambiental (plaintiff) and Vale (defendant)
Amounts, goods or rights involved	Loss and/or limitation of the right to exploit artesian wells, payment of damages (without liquidation at the complaint), material (without liquidation at the complaint) and moral losses (without liquidation at the complaint) due to the claim of diseases caused by an alleged contamination, as well as the payment of collective moral or material indemnification resulting from an alleged violation of diffuse rights (as liquidated at the complaint in the amount of R\$ 12,039,001.20 on 12/30/2020). The value of the litigation is set in R\$ 100,000,000.00.
Main facts	<p>This Public Civil Action was filed by the Associação Juntos SOS ES Ambiental against Vale with a preliminary request for an urgent relief and a penalty involving an obligation to act, where the exploitation of artesian wells is question and the contamination of the Greater Vitória aquifers by Vale is claimed, as well as its operation of the Tubarão Complex. The urgency relief was requested for Vale to (i) suspend the exploitation of artesian wells, (ii) take measures to eliminate the alleged contamination of tanks, reservoirs and ponds of its industrial complex, (iii) submit evaluations at all water collection wells, tanks, reservoirs and ponds, (iv) implement an improvement plan for the sanitary treatment systems, (v) submit/execute implementation or expansion projects for high environmental risk undertakings and any other sources of great environmental impact (vi) submit a hydrological study to evaluate water availability and non-impact on the Greater Vitória aquifer, and (vii) submit an authorization for using underground water. The requests for an urgency relief were not granted. As for the merits, the Plaintiff requests that Vale should be sentenced to pay damages, property damages and those resulting from pain and suffering, to those who suffered from any diseases caused by the alleged contamination, as well as to pay an indemnification for personal or property damages, as a consequence of the alleged violation of diffuse rights, in the amount of R\$ 10,000,000.00. The amount in controversy is established at R\$ 100,000,000.00.</p> <p>Vale was served process on October 10, 2017, and filed its answer. On January 31, 2019, the Plaintiff filed an objection to the answer.</p> <p>On February 6, 2019, a pretrial order was issued that dismissed all preliminary actions argued by Vale and all parties were subpoenaed to submit any evidence discovered.</p> <p>Vale interposed an Interlocutory Appeal after this decision, on March 2, 2019 and the Plaintiff filed its reply briefs. Pending trial.</p> <p>In parallel, considering that no suspensive effect had been granted to the Interlocutory Appeal, on November 25, 2020, an order was issued requesting a statement about the application for expert evidence and the delimitation of its scope. Vale reiterated the terms of the Interlocutory Appeal and stressed that this burden should fall on the Plaintiff. A statement of court is pending.</p>
Chances of loss	Remote.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In an event of a negative outcome, the Company will suffer expressive losses and inestimable damages to its reputation.
Notes	Not applicable.

5) Case no. 0002383-85.2012.4.01.3905	
Court	Federal Court of the Judiciary Subsection of the City of Redenção
Instance	Trial Court

Filed on	5/28/2012
Parties	Federal Government Attorney's Office ("MPF" in Portuguese) (plaintiff); Kakarekré Indigenous Association of Defense of the Xikrin People of the Djudjeko, Tuto Pombo Indigenous Association, Porekro Indigenous Association of Defense of the Xikrin People of the Cateté, Pore Kayapó Indigenous Association, Bayprã Indigenous Association of Defense of the Xikrin People of the Oodja ("Associate Co-plaintiffs"); Vale, National Indian Foundation ("FUNAI") and the State of Pará ("Defendants").
Amounts, goods or rights involved	The value is undefined, taking into consideration that it is a claim involving (i) indemnity value, which will depend on the expert examination for definition, as well as (ii) the request to stop the nickel operations of the Onça Puma Company, in the State of Pará.
Main facts	<p>In 2012, MPF filed a Public Civil Action ("PCA") against Vale, the State of Pará and FUNAI, pursuing the suspension of the nickel Company operations at the Onça Puma mine, in the State of Pará, due to the alleged impact over the Xikrin of the Cateté and Kayapó indigenous communities located near the mining site. MPF argues (i) that the Company's operations would be contaminating the waters of the Cateté River which crosses the Xikrin indigenous land ("IL"), (ii) that the Company failed to meet certain conditions originating from the environmental licensing of the Onça Puma mine undertaking and (iii) that the State of Pará should not have granted an environmental license for said undertaking. Additionally, MPF has claimed the payment of indemnity in favor of the Indians and a monthly deposit of the amount of BRL 1.0 million, until the final and unappealable decision of the suit, in favor of the Xikrin and Kayapó indigenous villages.</p> <p>On October 18, 2012, the court did not recognize the urgency of the preliminary injunction entered in the sphere of the PCA, having denied said injunction requested by MPF.</p> <p>On May 25, 2015, past three years after the denial of the injunction, MPF filed a request for reconsideration by the court of Redenção, claiming that the operations of the Onça Puma mine undertaking would be contaminating the Cateté river, causing health damage to the indigenous tribes and, therefore, it reiterated the request to stop the undertaking and start payment of a monthly indemnity in the amount of BRL 1.0 million for the benefit of the Xikrin and Kayapó indigenous villages.</p> <p>On June 02, 2015, the court of Redenção partially accepted MPF plea, determining that Vale would monthly deposit the approximate amount of BRL 400 thousand, to be received and divided proportionally among the villages integrating the Xikrin IL.</p> <p>On July 14, 2015, the MPF filed an appeal requesting the increase of the monthly deposit obligation initially determined by the Redenção judge, requesting that Vale be required to deposit the monthly amount of R\$1 million per village affected by the project, as well as such as the immediate stoppage of the Onça Puma mine project. The Rapporteur's Judge granted the preliminary injunction formulated and fully accepted the request formulated by the MPF.</p> <p>On August 21, 2015, Vale entered a new Writ of Mandamus ("MS"), addressed to the President of TRF 1, against this new injunction for compensation increase and stoppage of the undertaking activities.</p> <p>On August 28, 2015, Rapporteur Judge received the MS formulated by Vale, and granted an injunction in favor of the Company, determining the suspension of the effects of the order that determined the stoppage of the Onça Puma mine project and the (second) increase in the monthly value to be deposited.</p> <p>On September 16, 2015, on account of this new decision regarding the WM, MPF filed a claim for stay of preliminary order before the President of the Superior Court of Justice (STJ in Portuguese), claiming a public order and health nature risk. After gathering the manifestation of all the interested parties (Vale, the State of Pará and the Indigenous Associations), the STJ Chief Justice Minister recognized the risks presented by MPF and granted an injunction, determining the suspension of the effects of the previous one obtained by Vale in a WM, deciding for a new stoppage of the Onça Puma mine and the resuming of the monthly BRL 7.0 million deposits.</p> <p>On October 29, 2015, the State of Pará filed an appeal to suspend the injunction before the Federal Supreme Court (STF in Portuguese) Chief Justice, arguing</p>

	<p>that the paralysis of the undertaking would bring a series of damages to the State. The STF Chief Justice determined all the interested parties to manifest themselves about the request made by the State of Pará. In this opportunity, Vale complemented the information presented by the State.</p> <p>On December 16, 2015, STF suspended the effects of the injunction granted by STJ, thus releasing the operation of the Onça Puma mine undertaking, also determining the implementation, in up to 120 days, of the Management Plan and the remaining mitigating and compensatory measures regarding the impacts of the Onça Puma undertaking over the ILs.</p> <p>On June 15, 2016, the STF trial of the appeals filed by VALE (ED) and MPF (Internal Interlocutory Appeal - AGR) against the order issued by the Min. Chairman of the STF in the records of SL No. 933-PA/2016, which released the operation of the Onça Puma enterprise and determined the implementation of the management plan and other mitigating measures within 120 days, under penalty of return of the monthly deposit obligation. On account of some doubts from the part of the other participating ministers, especially Min. Barroso, which requested to see the records, the judgment was suspended.</p> <p>On May 31, 2017, the judgment of SL no. 933/PA-2015 was resumed, and Min. Barroso submitted his vote to, diverging from the initial rapporteur of the case (Min. Ricardo Lewandowski), revoking the decision, which suspended the effects of the injunction which ordered the interruption of the undertaking and payment of R\$1,000,000.00/month/village, thus returning the issue to the ordinary instances, for understanding that it was not the STF's role to evaluate factual matters.</p> <p>On September 13, 2017, the judgment of the AI no. 0042106-84.2015 took place, where the 5th Panel of the TRF 1st Region decided to partially accept the vote of the Appellate Judge-Rapporteur and, as a support to the Principles of Precaution and Prevention, determined the stoppage of the Onça Puma undertaking and decreased the amount of the compensatory sum of BRL 1 million/month/village to 1 minimum wage/Indian/month, until Vale implemented the PGE.</p> <p>On September 15, 2017, Vale was summoned of the court decision issued by the 5th Panel of the TRF 1st Region and, in compliance with the decision, suspended the activities of the Onça Puma mines operations.</p> <p>On September 22, 2017, Vale entered a Motion to Clarify (MC) against the decision issued by the 5th Panel of the TRF 1st Region, indicating its obscurities, since the 5th Panel failed to analyze several arguments displayed by the company, as well as the emphasized contradictions.</p> <p>On January 28, 2018, an expert examination was carried out at the Onça Puma undertaking, in the specialties of Civil Engineering, Forest Engineering, Metallurgy, Limnology, Ichthyology, Geology and Social Assistance.</p> <p>On October 23, 2018, the filing of the motions for clarification presented by Vale were judged and considered improper, and the integrity of the judgment handed down in the case file of instrument 00042307-42.2016, which resulted in the stoppage of the project and the payment of a monthly amount for the indigenous peoples.</p> <p>On November 6, 2018, the reports of the assessments made up to that date - Civil Eng., Forestry, Metallurgy, Agronomy, Sociology, Geology, Limnology and Biology - were added to the Public Civil Action records, which concluded that the enterprise of Onça Puma does not contaminate the Cateté river.</p> <p>On December 12, 2018, Vale filed an injunction (TC01 - Proc. 1036188-62.2018.4.01.0000), requesting the grant of suspensive effect to the Special and Extraordinary Appeal presented by Vale against the judgment that determined the stoppage of the Onça Puma mines and the payment of the monthly sum.</p> <p>On January 7, 2019, Ourilândia do Norte City Hall joined the STF with a request for Suspension of Injunction (STP-PA 105/2019), presenting the losses that the municipality will suffer with the total stoppage of the Onça Puma enterprise in reason of the maintenance of the decision rendered by TRF1st R, in the records of the Appeal of Instrument No. 00042307-42.2016.</p>
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	<p>On January 12, 2019, Min. President of the STF ordered on the record the request for Suspension of the Provisional Relief presented by the Municipality of Ourolândia do Norte (STP 105-PA/2019), postponing the appraisal of the filing for an injunction after the manifestation of the other interested parties and determined to notice everyone.</p> <p>On April 15, 2019, Min. President of the STF appointed a conciliation hearing for April 30, 2019.</p> <p>On April 30, 2019, a conciliation hearing was held in the STF, where Vale submitted a proposal for an agreement, which was rejected by the indigenous people and MPF. Due to the refusal to conciliate, the documents were conclusive for the STF Minister President to decide on the application for release of the enterprise.</p> <p>On September 16, 2019, the Chief Justice of the Supreme Federal Court drew up a monocratic preliminary decision of full permit for operation of the Onça Puma entrepreneurship, in addition to surveys by the Xikrin of the amounts deposited by Vale in a legal account.</p> <p>On November 3, 2019, indigenous associations have emphasized the request for payment of differences in amount due to the population increase of the villages, pleading a supplementary payment around R\$ 40 million. This request is still pending analysis by the Judiciary.</p> <p>On December 12, 2019, Vale filed a legal reporting request, claiming that the indigenous associations failed to uphold the provisions of the decision from the 5th Panel of the 1st Region Federal court, in addition to the conditions settled in the Conduct Adjustment Term, entered into with the MPF/Redenção.</p> <p>On 4 December 2020, the proceedings were suspended for one year at the request of the parties for dialog and discussions on the terms of an agreement closing all the actions in which the VALALE and the associations representing the Xikrin Indigenous Community are listed as parties.</p>
Chances of loss	Possible loss, since the proceeding is still in the fact-finding stage, and the technical expert examination requested by the parties is not yet concluded.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Possibility of considerable financial impact in case Vale is convicted, as well as in case of stoppage of the operations in the Onça Puma Mine.
Notes	Not applicable.

6) Case no. 0001254-18.2016.4.01.3901	
Court	2 nd Federal Civil Court of the Judiciary Subsection of Marabá
Instance	Trial Court
Filed on	5/12/2016
Parties	Associação Indígena Kakarekré for Defense of the Xikrin do djudjêkô People, Associação Indígena Bayaprã Indigenous Association for the Defense of the Xikrin do O-Odja People and Porekro Indigenous Association for the Defense of the Xikrin do Catetê People ("Plaintiff Associations") and Company, FUNAI, IBAMA and BNDES (jointly "Defendants")
Amounts, goods or rights involved	The value of the claim attributed by the Plaintiffs Associations is R\$ 72,385,600,000.00. In view of the object and progress of the proceeding, the Company understands that it is the amount involved in an eventual condemnation to be invaluable.
Main facts	<p>The Plaintiffs Associations filed a public civil action requesting (i) suspension of the environmental licensing process of the S11D project, (ii) settlement of pecuniary damages and emotional distress to be ascertained, and (iii) settlement of a monthly allowance of R\$ 2,000,000.00/per village, by failure of performing the Indigenous Component Study (ECI) and the prior consultation with the indigenous Xikrin community.</p> <p>On September 22, 2016, an order was filed in the records (i) designating November 7, 2016 for judicial inspection to superficially verify the alleged impacts; (ii) that Vale should provide the means necessary to transport representatives of the plaintiffs, the defendants and their respective attorneys and the Federal Attorney to the indicated site, and; (iii) certify the exclusion of lawyers.</p> <p>On November 7, 2016, the judicial inspection of the S11D enterprise was carried out.</p>

On January 24, 2017, the decision of the judge who accompanies the case denying the preliminary injunction, arguing, in a very brief summary, that at least in this preliminary phase it is not proven that the S11D enterprise causes any impact on the Xikrin indigenous lands.

On February 13, 2017, the Bayprã Association informed the trial court the filing of an interlocutory appeal challenging the decision that denied the S11D enterprise suspension injunction, requesting the reconsideration of the refusing decision of the pleaded injunction, alleging the new fact of Vale having received from IBAMA the Operating License of the S11D Mine. The Reporting Justice of AI (5755-44.2017) denied the preliminary injunction formulated by the Indigenous Associations.

On March 14, 2017, Vale filed its answer, restating the points presented in the preliminary manifestation and, complementing, emphasized the importance of the enterprise for the region and for the country, and lack of interest in the suit of the indigenous. On the merits, highlighted the absence of the impact alleged by the indigenous, as well as the presumption of legality and legitimacy of the administrative acts executed during the licensing. Lastly, required the termination of the case.

On June 14, 2017, the MPF/Marabá filed to the ACP court a motion for rehearing of the adverse decision of the preliminary injunction filed.

On June 20, 2017, the MPF/Marabá filed an Interlocutory Appeal against the adverse decision of the ACP court, requiring the granting of a preliminary injunction to make Vale to carry out the study of the indigenous component of the S11D enterprise.

On July 18, 2017, the case court partially reconsidered the disallowance of the initial request, under the argument that the performing of the study in nothing would impair the procedural relation, as well as the enterprise operation, and determined that Vale executed and presented in court within 180 days the indigenous component study of the S11D enterprise, keeping the disallowance of the standstill of the mine and of the payment of the monthly indemnification.

On July 20, 2017, Vale was given notice of the decision of the partial reconsideration of the refusing order of the preliminary injunction and went aware of the obligation to execute and present the indigenous component study of the S11D enterprise.

On November 28, 2017, there was a manifestation of the MPF suggesting the holding of a conciliation hearing for alignment of the questions related to the execution of the study determined.

On February 5, 2018, Vale presented a petition not opposing to the holding of the conciliation hearing to be assigned by the court.

On April 6, 2018, it was held the conciliation hearing for the definition of the representations for the accomplishment of the decision that determined the execution of the study of the indigenous component by Vale. The court accepted the arguments of the motion for clarification presented by Vale and rejected those presented by the Associations, as well as the reconsideration request presented by those, and a deadline of 60 days was established for Vale to present the work plan and the technical team to carry out the study. In addition, a period of 15 days was established for FUNAI to approve or require complementation to the work plan. Once approved the plan, it will be submitted to the indigenous for analysis and approval. The community does not have a deadline for this analysis.

On April 23, 2018, the Association presented instrument appeal against the decision that rejected the reconsideration request and postponed the decision for determination or not of the hiring of the technical team to assist the indigenous in the analysis of the study.

On April 27, 2018, Vale presented an appeal of instrument appeal against the decision that determined the company to execute the study of the indigenous component of the S11D enterprise.

On May 2, 2018, it was denied the preliminary injunction pleaded by the indigenous and kept the effects of the first instance decision that denied the stoppage of the enterprise and the payment of the monthly amount as

	<p>Indemnification.</p> <p>On June 8, 2018, Vale petitioned in the records informing that on the same date, it carried out the aforementioned protocol before FUNAI of the Work Plan and appointment of staff.</p> <p>On August 16, 2018, the MPF requested: a) FUNAI's subpoena to present a statement on the documents submitted by Vale; and b) subpoena of the authorial Associations to make a sound statement regarding the work plan - technical staff - of Vale.</p> <p>On August 22, 2018, the MPF petitioned for a request to attach Official Letter No. 437/2018/CGLIC/DPDS-FUNAI to the records and, considering the reservations pointed out by FUNAI, Vale's injunction to remedy them within 20 days before FUNAI.</p> <p>On September 20, 2018, a petition was filed by the MPF to request to attach official letter No. 437/2018/CLIC/DPDS-FUNAI and be manifested by FUNAI's order to: a) clarify whether the additional information provided by Vale is satisfactory, and, if so, b) define the dates on which the municipality and Vale will present the work plan to the indigenous communities.</p> <p>On February 15, 2019, FUNAI announced the designation of the dates of April 1 and 2, 2019 to hold the event to present the Work Plan of the Study of the Indigenous Component in the Xikrin villages.</p> <p>On March 28, 2019, FUNAI informed Vale and the associations representing the Xikrin that it would have to postpone the meetings scheduled for 01 and 02 April 2019 and that the new dates for these meetings would be communicated in the future.</p> <p>On July 16, 2019, a meeting was held at the Djudjekô village for presentation of the Work Plan ("PT") of the Indigenous Component Study of the S11D project. The indigenous leaderships did not allow the event to be concluded and disagreed with the Work Plan, requesting that Vale paid for a technical team for the indigenous people, so that they could carry out the study themselves.</p> <p>On July 29, 2019, Vale informed the court of the impossibility of the Work Plan presentation meeting and requested the dismissal of the study due to the contradictory stance of the indigenous people.</p> <p>On July 30, 2019, FUNAI submitted a statement to the records, declaring that there is no obstacle to the work of a technical team hired to carry out the study; claimed that the request formulated by the associations and payment by Vale of technicians to represent the indigenous people on the study is irrelevant, and emphasized a regularity statement of the Work Plan.</p> <p>On October 7, 2019, a procedural order was included in the records determining that FUNAI provides a statement on any pending matters on the Work Plan, if applicable, as well as deciding which legal expert would analyze the Work Plan and follow up on the performance of the study.</p> <p>On January 16, 2020, FUNAI submitted a statement to court, declaring that the Work Plan was approved by the foundation and the technical team hired was ready to work.</p> <p>On 4 December 2020, the proceedings were suspended for one year at the request of the parties for dialog and discussions on the terms of an agreement closing all the actions in which the VALALE and the associations representing the Xikrin Indigenous Community are listed as parties.</p> <p>On January 28, 2021, VALE submitted the claim for suspension of the action on the grounds of the procedural agreement concluded with the MPF and Indigenous Associations within the scope of Public Civil Action 002383-85.2012.4.01.3905 and whose object was to interrupt the procedural procedure to enable the composition, so that an agreement can be signed that puts an end to the existing legal actions between the parties. The Company awaits the decision of the court on this claim.</p>
Chances of loss	Possible loss, considering the initial stage, still in the fact-finding phase, of the process.

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss or preliminary decision, there is a risk of suspension of the operation of the S11D mine venture, in addition to financial impact.
Notes	Not applicable.

7) Process No. 0151584-90.2015.4.02.5111	
Court	Federal Court of Angra dos Reis
Instance	Trial Court
Date of filing	12/09/2015
Parties	Federal Public Ministry X VALE S.A., Petróleo Brasileiro S.A. ; ICMBio; IBAMA; Brasfels Shipyard LTDA; TPAR Operadora Portuária S.A. (formerly Technip); Petrobras Transporte S/A; INEA.
Amounts, goods or rights involved	Invaluable
Main facts	<p>Action assigned on December 09, 2015 by the Public Federal Prosecutor's Office in face of the Defendants, with a request for adoption of measures for mitigation and control of the Sun Coral (Coral Sol), species alleged as invasive in Ilha Grande Bay, which would have been introduced in the region due to the operation of the defendants.</p> <p>On 16, June 2017, it was published a preliminary decision through which the court determined the adoption of the following measures:</p> <p>a) that the defendants PETROBRAS - PETRÓLEO BRASILEIRO S/A, TRANSPETRO, PETROBRAS TRANSPORTE S/A, ESTALEIRO BRASFELS LTDA, VALE S/A, TERMINAL ILHA GUAÍBA (TIG) and TECHNIP OPERADORA PORTUÁRIA S/A, present within 60 days, inspection report of the respective terminals, and in all the ships, platforms, floating devices and underwater structures that might serve as substrate for the fixation of the Sun Coral, which are directly or indirectly related with the respective business activities, as well as emergency plan and execution schedule, for control of the presence of the invasive exotic species of the Tubastraea (Sun Coral) genus in the respective structures, having the referred plan to foresee the monitoring and periodical control of the species, with follow-up and supervision by IBAMA, technical support by the Instituto Brasileiro de Biodiversidade (Projeto Coral-Sol) and scientific support by the Departamento de Ecologia - Instituto de Biologia Roberto Alcântara Gomes (UERJ), with presentation of quarterly reports on the progress of the situation;</p> <p>b) that the defendant PETROBRAS - PETRÓLEO BRASILEIRO S/A, under supervision of IBAMA, technical support by the Instituto Brasileiro de Biodiversidade (Projeto Coral-Sol) and scientific support by the Departamento de Ecologia - Instituto de Biologia Roberto Alcântara Gomes (UERJ), present, within 90 days, complete diagnosis on the establishment of invasive species of the Tubastraea (Coral-Sol) genus in the Ilha Grande Bay and execution schedule for local eradication, control and extraction of the species in the maximum deadline of 2 years;</p> <p>c) that the defendants PETROBRAS - PETRÓLEO BRASILEIRO S/A, TRANSPETRO - PETROBRAS TRANSPORTE S/A, ESTALEIRO BRASFELS LTDA, VALE S/A - TERMINAL ILHA GUAÍBA (TIG), TECHNIP OPERADORA PORTUÁRIA S/A and IBAMA, establish, within 15 days an inspection method for all the embarkations and platforms that come to transit in the area and have any relation with the exploitation and/or prospection of oil (even after its entrance), including those destined only to provide support to the referred activities, aiming to prevent new introductions of the invasive organism; proceed to the preparation of a program for information/education on the areas already infested by the Coral-Sol, until its total eradication, in accordance with the Programa de Educação Ambiental executed by the Instituto Brasileiro da Biodiversidade (Projeto Coral-Sol);</p> <p>d) that the defendants INEA and IBAMA proceed to the revision, within 90 days, of all the Studies of Environmental Impact related to activities in the Ilha Grande Bay which are under licensing of the above referred agencies and that imply in movement of ships and oil platforms, to foresee specific obligation of prevention and control of the Sun Coral, in addition to include the same prevision in the EIA presently under analysis and in future ones.</p> <p>Still, the Court established daily fine in the amount of 50,000.00 (fifty thousand reais), in case of a justified noncompliance of the deferred preliminary injunction.</p>

	<p>The parties presented Instrument appeals, being Vale appeal distributed on June 30th 2017.</p> <p>On July 13, 2017, the Reporting Justice of the Instrument Appeal assigned to operate as supersedeas to the Appeal, to supersede the injunction decision.</p> <p>On October 17th, 2017, the case was suspended by request of the parties, for an attempt of the composition.</p> <p>On March 27, 2018, the parties again requested the suspension of the process, for a period of 100 days to continue the attempt to self-compose the dispute.</p> <p>On April 3, 2019, the parties again requested the suspension of the proceeding, for a further 100 days, to continue the attempt to self-compose the dispute.</p> <p>On May 24, 2019, the case judge granted the request of the parties, suspending the course of the lawsuit for 100 days.</p> <p>On October 31, 2019, the parties again requested the suspension of the process, for a period of 100 days to continue the attempt to self-compose the dispute.</p> <p>On July 28, 2020, the judge with attribution on the deed determined that a conciliation hearing was held.</p> <p>On September 1, 2020, a virtual conciliation hearing was held, in which the terms of the agreement discussed by the parties to the action were discussed, with a new conciliation hearing designated for October 20, 2020.</p> <p>On October 19, 2020, the court issued an order reassigning the hearing from October 20, 2020 to November 3, 2020.</p> <p>On November 3, 2020, a new virtual conciliation hearing was held, in which the terms of the agreement under negotiation between the parties were discussed, with a delay of fifty days for the defendant companies to present a new draft of the agreement considering the negotiations carried out in audience. Additionally, a new conciliation hearing was appointed for February 9, 2020.</p> <p>On January 8, 2021, the court issued an order reassigning the hearing from February 9, 2021 to March 9, 2021.</p> <p>On March 9, 2021, a new virtual conciliation hearing was held, in which the terms of the agreement discussed by the parties were discussed.</p> <p>On April 5, 2021, IBAMA filed a petition requesting the appointment of a new conciliation hearing, aiming at changing the draft agreement.</p> <p>On April 7, 2021, the court issued an order designating a new conciliation hearing for April 19, 2021.</p> <p>On April 19, 2021, a new conciliation hearing was held, in which the parties reached a consensus on the terms of the agreement, with a period of 30 (thirty) days granted by the judge for the collection of signatures.</p> <p>On May 17, 2021, the companies PETROBRAS and TRANSPETRO requested an extension, for another 30 (thirty) days of the deadline for the collection of signatures, which was granted by the court.</p>
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Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss of the action, it is possible that there will be an impact on the operating conditions of the Guaíba Island Terminal (TIG), a maritime terminal located in the State of Rio de Janeiro.
Notes	Not applicable.

8) Case No. 5154226-70.2017.8.13.0024	
Court	1 st Court of the State Public Treasury and Instrumentalities of the Court District of Belo Horizonte - Minas Gerais
Instance	Trial Court
Date of filing	October 2017
Parties	MPMG (plaintiff) Vale and Minas Gerais State (defendants)

Amounts, goods or rights involved	Invaluable value.
Main facts	<p>It is about a Public Civil Action filed by the MPMG against Vale and Minas Gerais State aiming not granting the environmental licenses for construction of the dam Barragem Maravilhas III. The Company obtained a favorable decision in a review by the first-degree court, allowing the Company to proceed with the construction of the dam. The Company obtained a favorable decision on reconsideration by the first degree court, and the Company may proceed with the implementation of the dam. An appeal was filed by the MPMG, without the grant of an active effect, pending judgment. It was assigned a conciliation hearing for June 8th, 2018.</p> <p>In the main case, the MP/MG presented a challenge to the contestation.</p> <p>On February 7, 2019, the MP/MG attached a incidental guardianship requiring, due to the rupture of the dam in Brumadinho, as a matter of urgency, to review the decision that revoked part of the decision of ID 32428405 that anticipated the guardianship of restoration of the guardianship granted in that decision.</p> <p>On February 14, 2019, Vale was subpoenaed about the MP/MG incidental guardianship.</p> <p>On February 27, 2019, there was a manifestation of Vale regarding incidental guardianship, informing the absence of a factual alteration, showing the lack of interest to act, reiterating the difference between upstream and downstream upheaval types and finally requesting that the MP/MG request is not provided.</p> <p>On March 27, 2019, the prepayment of guardianship filed by the MP/MG was not granted.</p> <p>After the end of the directions phase and submitting of final statement of facts by the parties, the records were closed or decision on March 23, 2020.</p> <p>In the meantime, the proceeding was only pending at the second instance, with judgment of the interlocutory appeal filed by the MPMG, with a view to obtaining an injunction to suspend the granted environmental licenses. On February 18, 2021, the appeal was dismissed, partially granting it, in order to determine that VALE present certain supporting documents of security, without, however, suspending the licenses.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	If the preliminary injunction is revoked or the case judged rightfully, the Maravilhas III dam cannot be installed. It is highlighted that the tailings dam Maravilhas III will support Company operations in the Vargem Grande mining complex in the South System. If the construction of this dam is stopped, the Company operations in the Vargem Grande mining complex can be negatively affected.
Notes	Not applicable.

9) Case No. 0119078-42.2018.8.13.0188	
Court	2nd Civil Court of Nova Lima
Instance	Trial Court
Date of filing	10/02/2018
Parties	Public Prosecutor's Office of the State of Minas Gerais (Applicant/Plaintiff) Vale S.A. (Defendant)
Amounts, goods or rights involved	BRL 3.27 (as of December 31, 2020). In view of the inestimable nature of the lawsuit's orders, which are consistent with the obligation to make, the amount attributed by the Company to the orders is BRL 3.27.
Main facts	<p>It is a Public Civil Action filed by the Public Prosecutor of Minas Gerais against Vale SA to the argument that Civil Inquiry had been established under No. 0188.16.000069-4, in which it was determined that there was an irregular allotment known as Vale dos Pinhais.</p> <p>It stated that the subdivision in question was located in the area of influence of the Maravilhas II Tailings Dam owned by Vale S.A. and that another dam, known as Maravilhas III, was being licensed by the state environmental agency, whose volume of tailings will be three times larger than the Fundão Dam located in Mariana.</p> <p>With this, MPMG claims that the community has been alerting public agencies since 2012 about the impacts of successive allotments, which, with the construction of a new dam, Maravilhas III, less than 1,000 meters away from</p>

the allotment, the risks to residents of the allotment increase.

Thus, it requires:

- a) Within a maximum period of 15 days, prepare, submit to the approval of the competent bodies and execute (as appropriate) an Emergency Actions Plan for the Maravilhas II and III projects, which considers the most critical scenario, observing all the expected requirements in Ordinance DNPM 70.389/2017;
- b) Within a maximum period of 15 days, elaborate, submit to the approval of the competent bodies and execute the Dams Safety Plan of the Maravilhas II and III projects, observing all the requirements set forth in Ordinance DNPM 70.389/2017 and including the Manual of Operations of Dams;
- c) Immediately communicate to the competent authorities any situation of increase of risk of rupture of existing tailing retention structures in Maravilhas II and III;
- d) Refrain from throwing tailings in Maravilhas II and III dams;
- e) Within three months, submit in court registration of all residents of the self-rescue zone of the Maravilhas II and III developments, accompanied by an evaluation of the respective properties, improvements, accessions, including the districts Vale dos Pinhais, Estância Alpina, Fazenda Riviera, Fazenda Retiro das Flores, Rancho Loyola and Rancho do Sossego, prepared by a legally qualified professional, according to ABNT norms;
- f) Within 24 months, indemnify the residents, through acquisition of all real estate properties located in the area of self-rescue of the Maravilhas II and III dams, including the value of the compensation, in addition to real estate, improvements, accessions, moral damages value compatible with the suffering caused by the diffuse environmental damages provoked, such as, atmospheric pollution, noise, landscape impairment, that caused loss of the quality of life of those affected, proving in the record the legal business celebrated;
- g) Publication of the edict set forth in article 94 of the CDC, and it is also mandatory for the local, regional and national media to publicize the action, so that interested parties can intervene in the process as co-plaintiffs;
- h) The summons of the legal representatives of the Condominiums Vales dos Pinhais and Estância Alpina for the awareness of this action and manifestation on the interest in intervening in the active pole as co-plaintiff in a term indicated by the court.

On October 2, 2018, the records were distributed by lottery.

On October 10, 2018, the anticipation of the guardianship was granted in part, in the following terms:

"For all of the above, I partially leave the guardianship of urgency, and determine to the requested Vale S/A that: Within a maximum period of fifteen (15) days, prepare, submit to the approval of the competent bodies and execute (as appropriate) an Emergency Action Plan for the Maravilhas II and III projects, which contemplates the most critical scenario, observing all the requirements provided for in Ordinance DNPM 70.389/2017; Within a maximum period of fifteen (15) days, prepare, submit to the approval of the competent bodies and execute the Dams Safety Plan of the Maravilhas II and III projects, observing all the requirements set forth in Ordinance DNPM 70.389/2017 and including, the Manual of Operations of Dams; Immediately report to the competent authorities any situation of increase of risk of rupture of existing tailings retention structures in Maravilhas II and III; Abstain, immediately, from throwing tailings in the Maravilhas II and III dams; within three (3) months, present in court registration of all residents of the self-rescue zone of the Maravilhas II and III developments, accompanied by an evaluation of the respective properties, improvements, accessions, including the districts Vale dos Pinhais, Estancia Alpina, Fazenda Riviera, Fazenda Retiro das Flores, Rancho Loyola and Rancho do Sossego, prepared by a legally qualified professional, according to ABNT norms; Promote, within a period of fifteen (15) days, the publication of the notice provided for in article 94 of the CDC, in the local, regional and national media, regarding the filing of this action, so that interested parties can intervene in the process as co-plaintiffs;

	<p><i>Eventual noncompliance is subject to a daily fine that is fixed in the amount of one hundred thousand Reais (R\$ 100,000.00), up to the limit of fifty million Reais (R\$ 50,000,000.00).</i></p> <p><i>The requested party should be mentioned at the address given in the initial. Summon the legal representatives of Condominiums Vales dos Pinhais and Estância Alpina for the awareness of this action and manifestation on the interest in intervening in the active pole as co-plaintiff, within fifteen (15) days."</i></p> <p>On October 8, 2018, a writ of summons was issued and, on the same date, sent to the Writ Office.</p> <p>On October 10, 2018, the company filed a request for reconsideration of the injunction by the company and, therefore, the deadline for filing a defense was initiated (Vale spontaneously appeared in the file).</p> <p>On October 11, 2018, a monocratic decision was handed down by the Rapporteur of the Appeal No. 1.0000.18.116304-9/000 distributed by the Municipality of Nova Lima in the TJMG, granting the request in part and definitively, to suspend the effects of the guardianship of urgency only with respect to its items "a", "b", "d" and "e", and the effects of the suspensive decision shall continue until the original action has become final.</p> <p>On November 6, 2018, Vale was summoned to file a defense.</p> <p>On January 24, 2019, the lawsuit was suspended until the decision was filed.</p> <p>On February 27, 2019, there was a petition joining by the MP, requesting the regular continuation of the event, with the appointment of an investigation and trial hearing.</p> <p>On April 30, 2019, the process was submitted to the MP/MG.</p> <p>On April 29, 2019, the President of the TJMG partially granted the request made by the MP/MG in the records of the Internal Appeal, in order to change the deadline for the suspensive effect granted, which was before the final decision of the Public Civil Action of origin until the merits of the case are heard by the Court.</p> <p>The Interlocutory appeal interposed by MPMG was dismissed, and the decision on the interlocutory appeal interposed by the Estância Alpina Condominium was set for April 22, 2020. This judgment took place on April 29, 2020, an opportunity at which the internal interlocutory appeal filed by the condominium was dismissed. Likewise, on July 25, 2020, an order was issued that determined the subpoena of the parties to point out the issues of fact and of law that they consider pertinent to the trial of the dispute. The records are complete.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Given that the object of the public civil action is an indemnity and an obligation to do, there is no way to estimate, a priori, the total economic value involved in the cause. Additionally, in the event of a conviction ordering the company to refrain from throwing tailings in the Maravilhas II dam, the Company will be subject to operational impactson the Vargem Grande Complex.
Notes	Not applicable.

10) Case No. 1000305-06.2018.4.01.3901	
Court	2 nd Federal Civil Court of the Judiciary Subsection of Marabá
Instance	Trial Court
Date of filing	07/10/2018
Parties	Associação Indígena Bayapã for Defense of the Xikrin do O-Odjã People, Associação Indígena Kakarekré for Defense of the Xikrin do Djudjekô People, Associação Indígena Porekrô for Defense of the Xikrin do Cateté people and Associação Bebô Xikrin do Bacajá ("Plaintiff Associations") and Vale S.A. (VALE), SALOBO METAIS S. A. (SALOBO), UNIÃO, Fundação Nacional do Índio (FUNAI), Instituto Brasileiro do Meio Ambiente e Recursos Naturais Renováveis (IBAMA), Instituto Chico Mendes de Conservação da Biodiversidade (ICMBIO), Instituto do Patrimônio Histórico e Artístico Nacional (IPHAN), Agência Nacional de Mineração (ANM) and Banco Nacional de Desenvolvimento Econômico e Social (BNDES) ("Defendants")

Amounts, goods or rights involved	In spite of having been awarded, by judicial decision, the value of the case in the amount of BRL 2,000,000,000.00, the Company understands that the amount involved in a possible conviction is invaluable.
Main facts	<p>On July 10, 2018, the Indigenous Associations presented the initial Civil Action Act (ACP), case No. 1000305-06.2018, in the judgment of the Federal Judicial Branch of Marabá, requiring the following: (i) suspension of the Salobo Mine Operation License and, as a consequence, the stoppage of the project; (ii) obligation to do - Study of the Indigenous Component (ECI) of the Salobo enterprise, and; (iii) obligation to pay - (a) 5 minimum wages/per indigenous person and (b) hiring of technical staff to assist indigenous people, and, on merit, the stoppage of the project until the effective implementation of mitigation measures and payment of compensation.</p> <p>On July 18, 2018, Vale previously met with the court of first instance and filed a verbal request for the preliminary injunctions to be considered after the preliminary manifestation of Vale and Salobo, as occurred in the Xikrin Public Civil Action/S11D .</p> <p>On October 5, 2018, an initial decision was rendered by judgment of the fact, in the following terms: (i) Refusal to maintain the Union, IPHAN, ANM and BNDES as co-defendants of the proceeding. Excluded from the dispute; (ii) Determination for indigenous peoples to proceed with amendments; (iii) Determination of the SALOBO/VALE citation, to challenge the action, and we are already working on this defense; (iv) Determination for VALE to present the list of all legal actions in progress in the Federal Court, involving any of the tribes of the Xikrin Indigenous Community (Cateté and Bacajá), indicating the undertakings considered in each action, with a copy of the initials and decisions rendered; (v) Determination for the company to attach the list of all amounts transferred to all Xikrin Indigenous Communities, monthly or annually, clarifying the title of such transfers, indicating which projects are determined to carry out the Study of the Indigenous Component and which have already been presented or are already in execution.</p> <p>On October 8, 2018, the Indigenous Associations were summoned of the decision that determined the amendment of the initial and postponed the analysis of the injunction.</p> <p>On October 29, 2018, the indigenous associations petitioned the initial amendment.</p> <p>On November 28, 2018, the association that represents the Xikrin do Bacajá, filed a petition requesting authorization in the case file, ratifying all the arguments and requests made by the associations that represent the Xikrin do Cateté.</p> <p>On December 04, 2018, the court issued an order accepting the petition for authorization of the Bebô Association; arbitrating the value of the case in R\$ 2 billion and determining the sum of the costs.</p> <p>On February 8, 2019, Vale and Salobo filed a joint challenge, contesting all the arguments presented by the indigenous associations and challenging the total dismissal of the action, especially regarding the injunctions filed.</p> <p>On February 26, 2019, ICMBIO and IBAMA presented their contestations, contesting all the arguments presented by the indigenous associations and challenging the total dismissal of the action.</p> <p>On June 19, 2019, a conciliation hearing among the parties was held, which was unsuccessful. On the same date, the case is decided that Salobo and Vale carry out an Indigenous Component Study (ECI) for assessment of the impacts on the entrepreneurship on the Indigenous Community Xikrin do Cateté, if any. The other requests for injunction, among them, the suspension of operations and monthly payment were dismissed.</p> <p>ON July 12, 2019, MPF submitted a motion for clarification against the decision that determined the performance of the ECI, requesting that the magistrate settled an omission regarding the request analysis that FUNAI created a new Reference Term for the study.</p> <p>On July 15, 2019, the indigenous associations filed an interlocutory appeal against the interlocutory appeal against the decision that denied the preliminary injunction filed, particularly the suspension of the entrepreneurship and monthly payment.</p>

	<p>On July 29, 2019, Vale filed an interlocutory appeal against the decision that determined the performance of the ECI.</p> <p>On August 1, 2019, FUNAI inserted in the record the petition for a new Reference Term for performance of the ECI.</p> <p>On August 28, 2019, the case decision accepted the new Reference term and determined that Salobo and Vale would take this new term into account for performance of the ECI, in addition to starting the creation process by submitting the resumés of the technical team hired to carry out the job.</p> <p>On September 16, 2019, Salobo and Vale filed a petition questioning the terms of the Reference Term, particularly the requirement for performance of a synergistic study considering the other entrepreneurship around the Xikrin village.</p> <p>On October 31, 2019, the rejection of the inquiries submitted by Vale was inserted in the record, and the new Reference Term was maintained as the guidelines for performance of the study.</p> <p>On November 11, 2019, Salobo and Vale submitted to FUNAI the resumés of the hired technicians to carry out the works and creation of the ECI. The company awaits a statement from FUNAI.</p> <p>On December 4, 2019, Salobo and Vale submitted the Work Plan (PT) for performance of the ECI to FUNAI. The company awaits a statement from FUNAI.</p> <p>On January 28, 2020, a procedural order was pronounced in the records determining that Salobo and Vale provide proof of fulfillment of the obligations implicated.</p> <p>On February 6, 2020, Salobo and Vale petitioned, on the records submitted to court, copies of the messages exchanged for presentation of the resumés of the hired technicians for study performance, in addition to the Work Plan created.</p> <p>On February 12, 2020, a procedural order was pronounced in the records determining that FUNAI provides a statement regarding the documents submitted by Salobo and Vale, within five days.</p> <p>On March 3, 2020, the Reporting Appellate Justice of AI no. 1021625-44.2019.4.01.0000 partially accepted the preliminary injunction request filed by the indigenous associations, and determined that Vale paid for the hiring of technicians to represent the indigenous people in following the performance of the ECI, rejecting the other preliminary decision requests, particularly the suspension of the entrepreneurship and monthly payment.</p> <p>On April 3, 2020, Vale submitted an interlocutory appeal against this decision, which determined the payment of the technical team and awaits trial.</p> <p>On December 4, 2020, the proceedings were suspended for one year at the request of the parties for dialogue and discussions on the terms of an agreement that will terminate all actions in which VALE and the associations representing the Xikrin Indigenous Community appear as parties.</p> <p>On January 28, 2021, VALE submitted the request to suspend the lawsuit due to the procedural agreement to suspend the proceeding, entered into with the MPF and Indigenous Associations within the scope of Public Civil Action 002383-85.2012.4.01.3905 and whose object was to interrupt the procedural procedure to enable the composition, so that an agreement can be signed that puts an end to the existing legal actions between the parties. The Company awaits the decision of the court on this request.</p>
Chances of loss	Possible, because of the lawsuit still being in the first degree of jurisdiction.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Possibility of considerable financial impact in case Vale is convicted, as well as in case of stoppage of the operations in the Salobo Mine.
Notes	Not applicable.
11) Case No. 0001843-23.2019.8.13.0090	
Court	2nd Civil/Criminal Court of Brumadinho

Instance	Trial Court
Date of filing	01/27/2019
Parties	Noraldino Lúcio Dias Júnior X Vale S.A
Amounts, goods or rights involved	The amount attributed to the case was BRL 20,000.00, but there are gross requests and/or which involve the adoption of various measures, which naturally have an economic character. As of December 31, 2020, the said updated amount was equivalent to R\$ 21,717.54.
Main facts	<p>This is an obligation to file a preliminary injunction requesting "the jurisdictional provision for the purpose of imposing an obligation to ensure the necessary assistance for the rescue, health and life of the animals, victims of the disruption of the retention of ore tailings that occurred on January 25, 2019, in the Rural Area of Brumadinho/MG.</p> <p>Preliminary decision rendered on January 27, 2019, determining that the contracting of equipment and resources necessary for the rescue and due care of the animals, victims of the breach, under the penalty of a daily fine of R\$ 50,000.00.</p> <p>On February 18, 2019, an interlocutory appeal was filed against the preliminary decision that determined the immediate adoption of measures aimed at guaranteeing the protection of animals in the area affected by the failure of the Brumadinho dam. The appeal is pending judgment to this date.</p> <p>On January 29, 2019, Vale filed a petition informing about the measures taken by the Company regarding the rescue of the fauna affected by the rupture, and on February 21, 2019, it filed a motion for rehearing of the preliminary decision, which determined the immediate adoption of measures aimed at guaranteeing the protection of animals in the area affected by the failure of the Brumadinho dam.</p> <p>On February 22, 2019, Vale attached its statement of defense, requesting the dismissal of the requests made by the plaintiff.</p> <p>On February 25, 2019, an order was issued in which the judge became aware of the interlocutory appeal filed and upheld the appealed decision.</p> <p>On March 13, 2019, a decision was issued granting the MP permission to see the case records, given that nothing was decided on the interlocutory appeal filed by Vale.</p> <p>On April 5, 2019, an order was issued determining that Vale should submit an updated report, regarding the current conditions of all animals rescued. The Plaintiff was granted permission to visit, together with a team of employees, the places where the animals are sheltered, in order to evaluate them and monitor the continuity of the treatment that is being provided.</p> <p>On May 7, 2019, the Company filed a request for the attachment of veterinary care records regarding the rescued animals.</p> <p>On June 26, 2019, a decision was rendered declining the jurisdiction to sue and judge the case for the 6th Court of State Public Treasury of Belo Horizonte, current 2nd Court of Public Treasury, and on September 17, 2019 the proceeding was assigned to the current 2nd Court of Public Treasury.</p> <p>An order was issued summoning the plaintiff to, within 10 days, amend the statement of claim, clarifying its standing to plead in court the requests made in the statement of claim, and on February 10, 2020, the petition of the Plaintiff was attached, reiterating the requests of the statement of claim and its standing to plead.</p> <p>On June 18, 2020, a sentence was handed down, dismissing the deed, without ruling on the merits, and ordering the plaintiff to pay the costs and procedural expenses, as well as the attorney's fees due to the defendant's Attorneys. The sentence became final on August 4, 2020.</p> <p>On August 6, 2020, there was a definitive write-off of the process.</p>
Chances of loss	Possible

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Considering that the court decision favorable to VALE has become final, there is no mention of impact in the event of loss.
Notes	Not applicable.

12) Case no. 5012680-56.2019.8.13.0024	
Court	2nd Court of the Public Treasury and Government Agencies of the Judicial District of Belo Horizonte
Instance	Trial Court
Date of filing	01/30/2019
Parties	Atlantic Forest Non-Governmental Organizations Network ("RMA") X Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was BRL 30,000,000,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. The quoted amount updated up to December 31, 2020 corresponded to BRL 32,576,310,000.00.
Main facts	<p>It is a public civil action whose purpose is the indemnification for collective moral damages in the amount of R\$ 30,000,000,000.00 and individual moral damages in the amounts of R\$ 1,000,000.00 or R\$ 500,000.00 depending on the severity of the damage. In addition, it requires the indemnification for property damage.</p> <p>Proceeding suspended since March 11, 2019 until the trial of case No. 5010709-36.2019.8.13.0024.</p> <p>Proceeding assigned to the 2nd Court of the Public Treasury and Government Agencies of the Judicial District of Belo Horizonte, due to the judiciary termination.</p> <p>In addition, there is a writ of mandamus filed against the decision of the court of the 6th Court of the Public Treasury and Government Agencies of Belo Horizonte, current 2nd Court of Public Treasury, which determined the suspension of the proceeding due to the previous pending lawsuit proposed by the State of Minas Gerais. Having the injunction requested under a writ of mandamus been rejected, the RMA filed an internal interlocutory appeal, an ordinary and special appeal. The internal appeal was not heard and the special appeal was dismissed. The ordinary appeal is pending judgment.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the lawsuit stems from the fact that it is a public civil action filed by Rede de Organizações Não Governamentais da Mata Atlântica with a view to compensation for collective and individual moral damages, and any unfolding of this process may have financial, operational and reputational impacts to the Company.
Notes	Not applicable

13) Case no. 1001659-44.2019.4.01.3800	
Court	19th Federal Civil Court of SJMG
Instance	Trial Court
Date of filing	02/07/2019
Parties	Federal Government v. VALE S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$ 230,000.00, however, there are illiquid orders and/or orders involving the adoption of several measures, which of course have an economic character.
Main facts	<p>This is an action for pre-trial injunctive relief interposed by the Federal Government in the face of Vale S.A., requiring the defendant to hire indicated laboratories to provide periodic examinations on the water quality of the Paraopeba River, for a minimum period of two months, under penalty of fine.</p> <p>A decision was rendered on February 11, 2019, rejecting the action for pre-trial injunctive relief and requiring the defendant to hire appointed laboratories to provide periodic examinations on the water quality of the Paraopeba River, for a minimum period of two months, under penalty of fine.</p> <p>The Conduct Adjustment Agreement (TAC) (for information on this TAC, see item 4.7 of this Reference Form) was signed, which legally approved with the termination of the proceeding.</p> <p>The proceeding was reinstated for the purpose of examining the request for</p>

	<p>extension of the signed TAC, for another 12 months. The parties reached an agreement and requested judicial ratification of the extension of the agreement on April 13, 2020.</p> <p>On May 22, 2020, a decision was rendered approving the commitment signed by the parties for the extension of the agreement already ratified in a previous sentence, with prejudice to the determinations of the decision handed down in the hearing.</p> <p>On July 21, 2020, the case was definitively closed.</p>
Chances of loss	Remote.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the action stems from the fact that it is a public civil action filed by the Federal Government with a view to adopting measures on the water quality of the Paraopeba River.
Notes	Not applicable.

14) Case No. 0003811-02.2019.8.13.0054	
Court	Sole Court of the Jurisdictional District of Barão de Cocais/MG
Instance	Trial Court
Date of filing	02/13/2019
Parties	Prosecution Office of the State of Minas Gerais v. Vale S.A.
Amounts, goods or rights involved	The amount in dispute was R\$1,000,000.00; however, there are illiquid orders and/or orders involving the adoption of several measures, which of course have an economic nature. The mentioned amount updated up to December 31, 2020 corresponded to BRL 1,081,981.00.
Main facts	<p>It is a public civil action in defense of the environment with an application for urgent protection, in which MPMG postulates that Vale will carry out several emergency measures for the protection and preservation of fauna, located at the Gongo Soco Mine in Barão de Cocais.</p> <p>As of February 13, 2019, the lawsuit was assigned.</p> <p>On February 14, 2019, a preliminary injunction was approved by MPMG for Vale to comply with specific performance regarding the fauna of Barão de Cocais, a decision that was the subject of an interlocutory appeal, which was granted partial supersedeas to delay the term to comply with the measures.</p> <p>On March 26, 2019, Vale filed an answer, and on May 24, 2019, a challenge was filed against the answer, filed by the Plaintiff.</p> <p>On June 7, 2019, the MP requested the attachment to the case records of the TAC signed between the parties and its ratification.</p> <p>On June 13, 2019, a decision was rendered ratifying the TAC, dismissing the claim, with no resolution of merit, and ordering Vale to pay the procedural costs.</p> <p>On September 5, 2019, the case records were sent to the accountant for the calculation of final costs, and on September 6, 2019, the amount of R\$ 6,520.40 was indicated in the final calculation.</p> <p>On October 3, 2019, Vale was notified to pay the final costs, and on November 5, 2019, the case records were definitively archived.</p> <p>On March 16, 2020, a petition was filed requesting the archiving of the case file, before the amendment TAC Fauna, in which clause III of the amendment of May 21, 2019 was rewritten, and, in summary, Vale must pay the amount of BRL 2,000,000.00, in terms of ecological compensation.</p> <p>On February 25, 2021, the case was reopened with the publication of the decision that ratified the amendment TAC Fauna.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Two million (BRL 2,000,000.00) The relevance of the action stems from the fact that it is a public civil action filed by the Public Prosecutor's Office with a view to repairing and adopting measures in the event of a rupture in the Gongo Soco dam, and any unfolding of this proceeding may have financial and reputational impacts on the Company .
Notes	On November 5, 2019, the case was definitively written off. On February 25, 2021, the case was reopened.

15) Case No. 5000683-69.2019.8.13.0188	
Court	2nd Civil Court of the Court District of Nova Lima
Instance	Trial Court
Date of filing	02/25/2019
Parties	Public Prosecutor's Office of Minas Gerais ("MPMG") and Vale S.A.
Amounts, goods or rights involved	The amount in dispute was BRL 2,000,000.00; however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic nature. The mentioned amount updated up to December 31, 2020 corresponded to BRL 2,163,962.00.
Main facts	<p>It is a public civil action in defense of the environment with petition for urgent relief, filed by MPMG in face of Vale. In addition to petitions for urgent relief, Vale is required to (i) take care of all properly rescued animals, ensuring conditions of well-being inherent to the species, until they can be returned to their tutors, (ii) indemnify, morally and materially, tutors who can not receive the animals back, (iii) indemnify the tutors, morally and materially, in the event of the death of the animal, (iv) hold fairs to adopt rescued dogs and cats that can not be returned to their tutors, and it must deliver the animals through responsible custody, which should be monitored for six months. In case of noncompliance with the term, the defendant must resume the animal's custody, (v) perform the rehabilitation and release of wild animals seized in irregular captivity, in accordance with the pertinent legislation and under the supervision of the competent environmental agencies, take care of animals rescued and not returned to their tutors, adopted or reintroduced in nature, until the end of their lives, being prohibited the slaughter, the commercialization or the use for work of these animals, (vi) condemn to the payment of collective moral damages in the amount of R\$ 2 million, to be destined for the Special Fund of the Public Prosecutor's Office - FUNEMP for application in wildlife protection projects. On the same day of the distribution, the interim relief challenged by MPMG was granted.</p> <p>Lawsuit filed on February 23, 2019 and regularly distributed to the 2nd Civil Court of Nova Lima on February 25, 2019. Decision handed down in the on-call regime, granting the initial request, setting a deadline for Vale to start complying with the measures in 24 hours, and ending in 120 hours. Fixed daily non-compliance fine of R\$ 100 thousand.</p> <p>Vale filed a petition on February 28, 2019, requesting reconsideration of the decision, as well as warning of the interlocutory appeal, in which the suspensive effect claimed by Vale was approved, in order to suspend the judicial order, without prejudice to the aggravating party taking the necessary arrangements for rescue and treatment of domestic animals and for protection of wildlife in the areas of Self-Rescue Zones of the Vargem Grande and Mar Azul regions.</p> <p>Vale presented its defense on March 26, 2019.</p> <p>The parties entered into an agreement on September 25, 2019, which was ratified on November 29, 2019, determining the dismissal of the lawsuit. The judgment became final and unappealable, but the case records have not yet been archived. This occurs because, despite the fact that Vale has complied with its obligation and deposited the amount agreed in court, at the disposal of the Public Prosecution Office, the project for the allocation of the amount has not yet been approved.</p> <p>On December 15, 2020, the Public Prosecutor's Office presented the project called "Castramóvel Regional Nova Lima, Rio Acima, Raposos", which was approved. Therefore, the issuance of a permit for the withdrawal of BRL 1,094,139.17 from the BRL 2 million deposited in court was requested - deferred.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. The relevance of the action stems from the fact that it is a public civil action filed by the Public Prosecutor's Office with a view to repairing and adopting measures in case of disruption of the Mara Azul mine dams, and any unfolding of this process may have financial, operational and reputation for the Company.
Notes	Not applicable

16) Case No. 5002909-47.2019.8.13.0188	
Court	1st Civil Court of the Court District of Nova Lima

Instance	Trial Court
Unfolding	Interlocutory Appeal No. 1397280-77.2019.8.13.0000 (MPMG) Interlocutory Appeal No. 4771240-05.2020.8.13.0000 (ASSPROA) Interlocutory Appeal No. 0181717-10.2020.8.13.0000 (Vale)
Date of filing	06/28/2019
Parties	Public Prosecutor's Office of the State of Minas Gerais v. Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was R\$ 2,000,000.00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character. In view of the invaluable nature of the action requests, consisting of an obligation to do, the value attributed by the Company to the requests is R\$3.00.
Main facts	<p>This is a Public Civil Action filed by the Public Prosecutor's Office of Minas Gerais against Vale S.A., for the alleged irregular emission of noise above legal permits, resulting from the mining activity of iron ore in the Mining Complex Vargem Grande, located in Nova Lima/MG, which would be causing damage to the environment and to the population that resides in the area close to the enterprise.</p> <p>The Public Prosecutor's Office requires, as a matter of urgency, that Vale S.A. be ordered to refrain from emitting noise at levels that exceed the limit of 45dB (A) at night and 50dB (A) at daytime, under penalty of criminal liability and the application of a fine of two million Reais (BRL 2,000,000.00) for a harmful event.</p> <p>In the end, it requests that the requests be upheld, confirming urgent relief and sentenced Vale S.A. to the following obligations: (i) obligation not to make consistent abstaining, within the scope of its activities at the Vargem Grande Mining Complex, of the noise at levels that exceed the limit of 45 dB (A) at night and 50 dB (A) at daytime; (ii) payment of indemnity for intercurrent environmental damages and for environmental damages considered irrecoverable, in an amount to be determined in settlement of the sentence.</p> <p>Main events:</p> <p>On June 28, 2019, process distributed.</p> <p>On August 13, 2019, an order was issued that ordered the Public Prosecutor's Office to collect the entirety of the technical report of the noise emission.</p> <p>On September 5, 2019, the Public Prosecutor's Office added the full technical report of the noise emission to the records. On the same date, it completed records for decision.</p> <p>On September 16, 2019, a decision was rendered denying the requests for emergency relief requested by the Public Prosecutor's Office, as it understands that the requirements of the danger of delay and the probability of the intended right are absent.</p> <p>On September 20, 2019, Associação dos Proprietários do Solar da Lagoa – ASSPROA, manifested itself in the records requesting their qualification in the process as an active assistant joint party, under the argument that the resident population of Condomínio Solar da Lagoa is the main interested party, and most affected by the noise pollution in question.</p> <p>On October 23, 2019, an Interlocutory Appeal filed of No. 1397280-77.2019.8.13.0000 was filed by the MPMG in view of the decision that rejected the requests for urgent relief made by the MP in its initial.</p> <p>On October 30, 2019, an order was issued which maintained the decision aggravated by its own grounds,</p> <p>On November 6, 2019, ASSPROA added new evidence to the records asking for reconsideration of the decision that denied the urgency.</p> <p>On December 10, 2019, a monocratic decision issued in the records of interlocutory appeal No. 1397280-77.2019.8.13.0000 was attached to the records, which rejected the request for active suspensive effect requested by the MPMG. On the same date, an order was issued in the ACP case records, whereby the court dealt with granting the request for inclusion of ASSPROA as an active assistant joint party.</p> <p>On May 28, 2020, ASSPROA filed a Motion for Clarification against the decision that rejected the reconsideration request on the preliminary decision.</p>

	<p>On June 3, 2020, a decision was rendered that rejected the Motions for Clarificatipon opposed by ASSPROA.</p> <p>On July 6, 2020, the MPMG petitioned on the records to request the granting of incidental emergency relief, so that Vale is determined to refrain from emitting noise at levels that exceed the limit of 45 dB (A) at night and 50 dB (A) during the day, under penalty of a fine of BRL 2 million per event.</p> <p>On July 24, 2020, a new Interlocutory Appeal No. 4771240-05.2020.8.13.0000 was filed by ASSPROA, in view of the decision that rejected the preliminary injunctions, requiring the aggravation of the reform of said decision so that Vale may be determined that, in the scope of its activities in the Vargem Grande Complex, it shall refrain from emitting noise that exceeds the levels determined by NBR 10.151/2000.</p> <p>On July 30, 2020, an interlocutory decision was handed down, rejecting the request and granting of emergency relief requested on an incidental basis, intended by the Public Ministry. On the same date, a preliminary statement was presented by Vale S.A., an opportunity in which it requested the rejection of the request for the granting of emergency relief in an incidental character submitted by the plaintiff.</p> <p>On November 19, 2020, in compliance with the judgment issued in AI No. 4771240-05.2020.8.13.0000, a decision was rendered that, in a reanalysis of the preliminary injunction formulated by the MPMG, rejected the requests for urgent relief, as the judgment understands that the plausibility of the initial allegations has not been characterized.</p> <p>On March 30, 2021, a conciliation hearing was held, which was unsuccessful due to the absence of the claimant, Public Prosecutor's Office.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. In case the action is dismissed, the company must fulfill the parameters regarding noise emission, under penalty of fines and possible criminal accountability for eventual violation, in addition to payment of compensation for material damages to be judged by the court. It should be highlighted that eventual restrictions imposed by the decision may affect operations at Vargem Grande.
Notes	Not applicable.

17) Case no. 0027542-58.2019.8.08.0024	
Court	2 nd State Court of the Treasury, City, Public Registers, Environment and Health
Instance	Trial Court
Date of filing	9/23/2019
Parties	Associação Juntos SOS Espírito Santo X Vale S.A.
Amounts, goods or rights involved	The amount attributed to the claim was BRL 20,000,000.00 for collective pain and suffering and other non-monetary claims (BRL 24,799,750.36 updated on 12/31/2020).
Main facts	<p>Public Civil Action filed on 9/23/2019, questioning the licensing of the expansion of the Tubarão Pelletizing Unit - production increase of Pelletizing plants I to VII and implementation of Plant VIII.</p> <p>Requires (i) suspension of activities at the Tubarão unit until suitability to the percentage limit of pollutants is proven; (ii) fulfillment by the company of all conditions undertaken; (iii) the company is required to eliminate emission of pollutants in disagreement with the parameters submitted in the EIA and (iv) sentencing of the company for collective moral damages in the amount of R\$ 20,000,000.00.</p> <p>Vale's writ was attached to the case record in October 18, 2019.</p> <p>The objection was filed on November 8, 2019.</p> <p>On October 19, 2020, a decision was rendered rejecting the preliminary injunction handled by the Plaintiff and determining the specification of the evidence to be produced. A decision was made to appoint a company to conduct expert evidence required by the Plaintiff, which is pending publication for the parties to express their opinion on the expertise determined by the court.</p>
Chances of loss	Remote

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable. In case the action is dismissed, the initial impact would be in the form of suspension of the activities in the Tubarão Complex, and the need for various environmental control measures not mapped by the company would arise.
Notes	Not applicable.

18) Case No. 5013909-51.2019.8.13.0024	
Court	1st Court of the Public Treasury and Government Agencies of the Court District of Belo Horizonte
Instance	Trial Court
Date of filing	02/01/2019
Parties	Public Prosecutor's Office of the State of Minas Gerais and State of Minas Gerais x Vale S.A.
Amounts, goods or rights involved	This is a public civil action filed by the MPMG against Vale, due to the rupture of the tailings dam I of the Córrego do Feijão mine, in Brumadinho, requiring the adoption of several safety measures in several company dams in the state of Minas Gerais (dams of Laranjeiras (Brucutu Mine), Menezes II (Feijão Mine), Capitão do Mato (Capitão do Mato Mine), Dike B (Capitão do Mato Mine), Taquaras and B3/B4 (Mar Azul Mine), Forquilha I, Forquilha II and Forquilha III (Fábrica Mine), Upper South (Gongo Soco Mine).
Main facts	<p>On February 1, 2019, a preliminary decision was issued determining that Vale should immediately take actions, such as stopping structures and activities, contracting a new audit company, preparing plans and studies, among others. Specifically in relation to the interruption of the activities of the Norte Laranjeiras dam, the court reconsidered authorizing the resumption of activities.</p> <p>After negotiation and conclusion of several agreements between the Company and the MPMG, most of the requests formulated in this ACP were extinguished.</p> <p>Currently, the process is suspended due to the audit work that has been carried out by the independent audit companies contracted due to the agreements signed with the MPMG. The Term of Commitment signed between the Company and MPMG, with the intervention of the audit company Worley, regarding the structures Norte Laranjeiras, of the Brucutu Mine, Capitão do Mato and Dike B, of the Capitão do Mato Mine, is still pending approval.</p>
Chances of loss	Possible
Analysis of impact in the case of losing the suit	Invaluable.
Notes	Not applicable.

19) Case no. 5000021-03.2019.8.13.0319	
Court	2nd Civil, Criminal and Criminal Convictions Court of the District of Itabirito
Instance	Trial Court
Date of filing	04/03/2019
Parties	Public Prosecutor's Office of the State of Minas Gerais v. Vale S.A.
Amounts, goods or rights involved	The amount attributed to the case was BRL 1.000.000,00, however, there are illiquid orders and / or orders involving the adoption of several measures, which of course have an economic character.
Main facts	<p>This is a public civil action in which the Public Prosecutor's Office ("MP") requested an immediate halt to the activities of the Maravilhas II Dam and other structures of the mining complex, in addition to the adoption of preventive measures.</p> <p>A decision was handed down on April 11, 2019, determining that the Company should immediately take actions such as stopping structures and activities, hiring a new audit company, preparing plans and studies and adopting numerous emergency measures related to dams located in the municipality of Itabirito, all of Pico Mine, under penalty of a daily fine in the amount of one million Reais (BRL 1,000,000.00).</p> <p>On October 25, 2019, Vale's petition was submitted requesting the approval of the TAC signed between the parties and the consequent extinction of the requests covered by the agreement. A decision was issued on December 4, 2019, ratifying the Term of Commitment, and determining the continuation of the deed in relation to the other items not covered.</p> <p>On September 28, 2020, a decision was rendered reversing the burden of proof, transferring to VALE the duty to prove that its conduct does not pose</p>

	risks to the dams and/or damage to the environment. As for the analysis of the evidentiary instruction, the production of evidence at the hearing was authorized, consisting of the hearing of witnesses, documentary evidence, up to the date of the hearing and expert evidence to be scheduled in the future. The lawsuit is pending hearing and judgment scheduling.
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Immeasurable
Notes	-

20) Case no. 1002244-84.2019.4.01.3901	
Court	2nd Federal Civil and Criminal Court of the SSJ de Marabá/PA
Instance	Trial Court
Date of filing	07/12/2019
Parties	Federal Public Prosecutor's Office x VALE S.A.
Amounts, goods or rights involved	Value in dispute: BRL 100,000,000.00.
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office ("MPF") against VALE and ANM, with the objective of seeking safety measures, necessary emergency works and basic safety maintenance of the structures of Igarapé Mine in Bahia, notably the execution of works for the construction of the spillways of the dams, in addition to the temporary implementation of risk mitigating measures and, finally, the complete decommissioning of the tailings pond and deactivation of the water catchment dam. The initial petition also included an injunction requesting a weekly security deposit of one million Reais (BRL 1,000,000.00) and suspension of all administrative proceedings pending at the Judicial Subsection of Marabá/PA.</p> <p>On September 17, 2019, a decision granted the request for urgent relief made by the MPF determining that Vale should adopt a series of obligations to do, such as contracting a new audit company, preparing plans and studies and adopting numerous emergency measures relating to the Tailings Pond and Water Catchment dams. On the other hand, it denied the provision of a weekly security deposit of BRL 1 million, as well as the fixing of a daily fine of BRL 1 million in case of non-compliance with the injunctions and the suspension of all administrative procedures in the region. In the same preliminary decision, a request for publication of a relevant fact about the judicial decision was granted, which was duly complied with.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Invaluable.
Notes	-

21) Infraction Notice No. 109203/2019	
Administrative Level	Fundação Estadual do Meio Ambiente ("FEAM")
Instance	Trial Court
Date of filing	08/01/2019
Parties	FEAM and Vale
Amounts, goods or rights involved	A fine of 101,250 UFEMGS was applied, which in December 2020 represented BRL 380,730, 78.
Main facts	<p>Infraction Notice No. 109203/2019 - Infraction Notice drawn up by Fundação Estadual do Meio Ambiente ("FEAM") on August 1, 2019, which attributed to Vale the following infraction regarding the Declaration of Condition of Stability (DCE) mentioned below: "To elaborate or present information or study, report or environmental report totally or partially false, misleading or omitted, whether in the official control systems, whether in the licensing, in the grant or other" As stated in the Inspection Report No. 82637/2019, Vale reportedly submitted the last DCE referring to B1, at Banco de Informações Ambientais (BDA), in September 2018 and that in the "Conclusion" field, Vale would have informed, according to its auditor that "to guarantee the safety conditions of dam I, the activities of periodic inspection, monitoring, critical analysis of readings and periodic maintenance should be maintained".</p>
Chances of loss	Likely

Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Low economic value, but relevant due to the impact to image.
Notes	Not applicable.

22) Case No. 1020547-27.2020.4.01.3800	
Court	21st Federal Civil Court of SJMG
Instance	Trial Court
Developments	N/A
Date of filing	06/02/2020
Amounts, goods or rights involved	BRL 4.40 (as of December 31, 2020). In view of the inestimable nature of the lawsuit's orders, which consist of an obligation to do, the amount attributed by the Company to the orders is BRL 4.40.
Parties	Vale S.A (defendant) x Associação dos Proprietários de Pasargada - ASPAS
Amounts, goods or rights involved	Suspension of mining and environmental licenses of the Mar Azul, Anteatama and Capão Xavier Mines.
Main facts	<p>This is a Public Civil Action filed by ASPAS - Associação dos Proprietários de Passárgada against Vale, ANM and the State of Minas Gerais, in which it adds the existence of losses to the springs resulting from the mining activity carried out by the company.</p> <p>It notes, at this point, that the Hydro-Environmental Diagnosis prepared by Projeta Engenharia, contracted by Comitê da Bacia Hidrográfica do Rio das Velhas, would prove the existence of mining activities in the Fechos and Tamanduá basins, with the Mar Azul mine in the Fechos basin and the Tamanduá mine in the Tamanduá basin and affecting the water supply of the Metropolitan Region of Belo Horizonte.</p> <p>It emphasizes the contamination of heavy metals in Ribeirão Macacos, which has received water from Fechos, since 2014, as presented by researchers from SENAI/MG and UFOP at the 14th Congress of the Water Supply and Sanitation Network (RESAG) of 2014, in addition to addressing on the impacts of mining activity on the springs of Fechos and Tamanduá.</p> <p>Consequently, it requires the granting of protection of evidence to suspend the mining and environmental licenses of the Mines of Mar Azul, Tamanduá and Capão Xavier. Subsequently, if the protection of evidence has not been granted, it is in favor of granting emergency protection for the suspension of the mining and environmental licenses referred to above, in addition to maintaining the suspension of mining licenses until the execution of the Mine Closure Plan.</p> <p>On the merits, it asks for the confirmation of the injunction granted and annulment of the mining and environmental licenses of the Mar Azul, Tamanduá and Capão Xavier Mines, in addition to the annulment of the environmental authorization that would have excluded contaminant metals from monitoring the water quality of Fechos, the conviction of Vale in the execution of the Plans for Closing Mar Azul, Tamanduá and Capão Xavier Mines under penalty of daily fine to be fixed by the court , as well as the payment of i) examinations of heavy metals in consumers of water or food from Macacos; ii) treatment for the infected; iii) indemnification for material and moral damages for those contaminated in amounts to be fixed by the Court; and iv) decontamination of the bed of the Macacos river.</p> <p>The conviction of the State of Minas Gerais is the execution of the Closing Plans of the Mar Azul, Capão Xavier and Tamanduá Mines (if not executed by Vale), under penalty of daily fine to be fixed by the Court, as well as the payment (in case of non-compliance by Vale) of i) examinations of heavy metals in consumers of water or food from Macacos; ii) treatment for the infected; iii) indemnification for material and moral damages for those contaminated in amounts to be fixed by the Court; and iv) decontamination of the bed of the Macacos river.</p> <p>The value of the cause was fixed at one hundred thousand Reais (BRL 100,000.00) for tax purposes.</p> <p>Records distributed on June 2, 2020. On June 5, 2020, ANM presented to the records its preliminary manifestation, strenching for its exclusion from the passive pole of the suit.</p> <p>On June 8, 2020, Vale S.A. presented to the case preliminary manifestation, an opportunity in which it maintained: (i) the incompetence of the Federal Court to prosecute and judge the present demand, in view of the illegitimacy of ANM to appear in the passive pole of the law; (ii) the illegitimacy ad cause of the plaintiff association; (iii) the absence of the necessary requirements for granting urgent protection; (iv) the absence of probability of the intended right; (v) the absence of danger of delay; (vi) the irreversibility of the effects of the decision and the danger of reverse damage; On June 22, 2020, an interlocutory decision was issued, by which the court declared the incompetence of the Federal Court to prosecute and judge this demand, in view of the illegitimacy of ANM to appear in the passive pole, which removes the Interest of the Union in the deed. It then</p>

	<p>determined the termination of the case in relation to that municipality, as well as the referral of the documents to the common state court.</p> <p>On 25 June 2020, ASPAS brought an appeal against that interlocutory decision.</p> <p>On July 28, 2020, EMG presented its reasons for the appeal filed by ASPAS.</p> <p>On 28 June 2020, Vale submitted its reply brief to the appeal brought by ASPAS, an opportunity in which it claimed, mainly, the inadmissibility of the action brought, with a view to its non-jurisdiction against an interlocutory decision – joined on 24 August 2020.</p> <p>October 24, 2020, records referred in a degree of appeal to TRF-1.</p> <p>On November 9, 2020, the MPF's Opinion was attached, which fought for the declaration of nullity of the sentence, in view of the absence of a summons from the Federal Public Prosecutor's Office in a demand whose intervention is mandatory. On the same date, it completed records for decision.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	It is not possible to fully anticipate the impacts, however, if the merit is deemed valid in the State Courts, where the deed will resume due to the acknowledgement of the incompetence of the Federal Courts, the operations of the mines of Mar Azul, Tamanduá and Capão Xavier will be halted, in addition to the obligation to carry out environmental and contamination studies, repair of environmental damage and recovery of degraded areas being attributed to VALE.
Notes	Not applicable.

23) Case No. 5000818-88.2020.8.13.0239	
Court	Single Court of the District of Entre-Rios de Minas
Instance	Trial Court
Date of filing	09.22.2020
Parties	Municipality of Jeceaba (plaintiff) Vale (defendant) and MPMG (law inspector)
Amounts, goods or rights involved	Invaluable value.
Main facts	<p>This is a Public Civil Action filed by the Municipality of Jeceaba against Vale, in which a preliminary injunction was issued on September 24, 2020, determining that Vale should refrain from (i) launching tailings in Dam 7, belonging to Viga Mine, without Location and Operation Permit (issued on December 28, 2020, in the records of the Warrant No. 5001141-93.2020.8.13.0239 - see notes below); and (ii) carry out works on Dam 7 without the issuance of the relevant Construction Permit.</p> <p>On the merit, it is requested that (i) "planning for removal and installation in new residences of all citizens residing in the critical area of self-rescue be established through presentation/preparation of a study that demonstrates the areas at risk of human life in the event of disruption of the dam"; (ii) "adoption of a project/plan that presents a definitive solution to meet the safety of the other areas not covered in the previous item" and (iii) "presentation of the project/plan aiming at the adoption of short and medium term measures that are effective and definitive in protection of the environment in the area of influence of the project - ore tailings dam". Finally, the Municipality of Jeceaba asks (iv) that VALE be sentenced to pay indemnity to the population of Jeceaba for collective moral damages due to the maintenance of the operation of the dam "without due authorization from the municipal government", in the astronomical and unacceptable amount of BRL 500 million.</p> <p>Dispute presented by Vale on October 19, 2020.</p> <p>Request made by Vale on December 3, 2020, after the presentation of all necessary documentation, for the issuance of the Dam 7 Construction Permit.</p> <p>Specification of evidence by the parties on February 12, 2021, when Vale requested early judgment of the case, and the municipality of Jeceaba pleaded for the production of testimonial and expert evidence.</p> <p>On March 2, 2021, a decision was issued that (i) dismissed the requests for reversal of the burden of proof and testimonial evidence made by the Municipality of Jeceaba; (ii) granted the request for expert evidence (civil and mining engineering), to be paid for by the Municipality of Jeceaba; (iii) determined the defendant party to submit the ANM Administrative Process 27203.002771/1935-61, in full, within 15 days; and (iv) was not aware of the request for the issuance of the Dam 7 Construction Permit submitted by Vale, as it is not the subject of the action.</p>
Chances of loss	Possible
Impact analysis in case of loss/	Delay in the reinforcement works and increase in dam safety, which aim to

Reasons of the relevance of the lawsuit for the Company	increase the safety factor of the structure.
Notes	At the same time, in the midst of the Writ of Mandamus filed most recently by Vale (No. 5001141-93.2020.8.13.0239), the order was granted, by preliminary decision, with the Dam 7 Location and Operation Permit being issued on December 28, 2020. It is noteworthy that the application for renewal of the license for the year 2021, with all the documents that instruct it, was filed by Vale on October 29, 2020, with the respective payment of the fee, and is awaiting its analysis by the Municipality of Jeceaba.

24) Case No. 0800301-57.2020.8.14.0062	
Court	Single Court of the District of Tucumã/PA
Instance	Trial Court
Date of filing	05/13/2020
Parties	MPPA (plaintiff) Vale (defendant) and Associação dos Produtores Rurais (defendant)
Amounts, goods or rights involved	Invaluable value.
Main facts	<p>Public civil action seeking the annulment of TAC TUCUMÃ, alleging irregularities in its execution, either because the then signatory prosecutor did not have the power to sign the agreement (since he was already responsible for another district), or due to territorial and material competence (facts occurred in more than one municipality and there are issues of interest to the Federal Union).</p> <p>In a preliminary ruling in August 2020, the TAC was suspended to prevent any transfer of financial resources to Associação dos Produtores Rurais, a court order maintained by the court.</p> <p>In January 2021, Incra expressed its disagreement with the terms of the TAC, according to the opinion attached to the lawsuit.</p> <p>In March 2021, the MPPA requested an early trial of the case, since other evidence to produce was absent.</p> <p>In the same month, envisioning a "real possibility of composition" between Vale, INCRA and the Association "aiming to end the litigation", Incra asked for the action to be suspended for 60 days, which has not yet been analyzed by the judge.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Reputational impact before Associação dos Produtores Rurais, which have already banned the access road to the operational unit of Onça Puma, as well as the resumption of the public civil investigation underway at the MPPA in Tucumã, which would be extinguished with the approval of the TAC that is intended to be annulled.
Notes	This process is related to the TAC TUCUMÃ reported in item "(C) Other Terms of Adjustment of Conduct and Relevant Terms of Commitment" of item 4.7 of this Reference Form.

25) Case No.1059046-89.2020.4.01.3700	
Court	8th Federal Court Judiciary Section of Maranhão
Instance	Trial Court
Date of filing	12/14/2020
Parties	Federal Public Prosecutor's Office x Vale S.A.
Amounts, goods or rights involved	As the demand involves environmental damage, the value is immeasurable. The risk of one million and five hundred thousand Reais (BRL 1,500,000.00) was attributed, for tax purposes only)
Main facts	<p>In December 2020, the Federal Public Prosecutor's Office ("MPF") filed a public civil action against the Company seeking compensation for alleged environmental damage resulting from the incident and reimbursement of expenses incurred by the government in relation to the rescue operation of the iron ore carrier ship MV Stellar Banner.</p> <p>On February 24, 2020, after identifying 02 cracks in the bow of the hull, the iron ore carrier MV Stellar Banner, of the Marshall Islands Flag, which had left the Ponta da Madeira Maritime Terminal headed for Qingdao (China), loaded with approximately 295 Mt of iron ore produced by us, undertook stranding on a</p>

	<p>shallow bottom about 100 kilometers off the coast of São Luís, thus avoiding its shipwreck.</p> <p>Vale supported the shipowner with technical-operational and preventive measures to safely remove the cargo of fuel and iron ore from the vessel. Despite all efforts during the rescue operation, the damage to the vessel's structure was very serious and with the approval of the Brazilian maritime authority and Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - IBAMA, the bulk carrier was sunk in June 2020 together with a small part of the cargo that could not be removed from the ship.</p> <p>The Company is currently awaiting a subpoena to present our defense.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Since this process is at an early stage, we cannot reasonably estimate its impact.
Notes	In spite of VALE's manifest passive illegitimacy, risks arising from judicial precedents that show a tendency to recognize strict civil liability for environmental damage are perceived as unfavorable to the Company, in addition to the possibility of liability based on the broad interpretation of Law no. 9,990/2000.

26) Case No. 1002061-67.2020.4.01.3905	
Court	Federal Court Judiciary Section of Redenção
Instance	Trial Court
Date of filing	07/11/2020
Parties	Associação Indígena Kakarekré de Defesa do Povo Xikrin do djudjêkô, Associação Indígena Bayaprã de Defesa do Povo Xikrin do O-Odja, Associação Indígena Porekro de Defesa do Povo Xikrin do Catetê and Associação Indígena Djôre de Defesa do Povo Xikrin do Pokrô ("Plaintiff Associations") and VALE, FUNAI, IBAMA and SEMAS/PARÁ (jointly "Defendants")
Amounts, goods or rights involved	The value of the case attributed by the Plaintiff Associations is BRL 1,000,000,000.00. Having in mind the object and the case progress, the Company considers being the value involved in a likely conviction invaluable.
Main facts	<p>On July 11, 2020, the Plaintiff Associations joined the ACP, claiming that, due to the fact that the project is close to Indigenous Territory, the licensing competence should be with IBAMA and not with SEMAS/PA, and because of that, it requires the suspension of the enterprise, the transfer of the licensing process to IBAMA and payment of a monthly fee in favor of the plaintiff associations until the conclusion of the new licensing.</p> <p>On August 10, 2020, the judgment of the deed determined the plaintiffs to amend the initial, given the lack of elements pointed out by them.</p> <p>On August 28, 2020, the Plaintiff Associations filed a petition to amend the initial. On the same date, FUNAI petitioned in the records, requesting that the request for an injunction be evaluated after the presentation of a preliminary statement by all the defendants.</p> <p>On September 4, 2020, VALE presented its preliminary statement, arguing, in summary, the illegality of the request, that the impacts of the project is local, reaffirming the competence of SEMA/PA. On September 11, 2020, IBAMA presents its preliminary manifestation, arguing the same as VALE.</p> <p>On October 15, 2020, the Plaintiff Associations submitted a request for preference in the analysis of the application for an injunction.</p> <p>On October 22 and November 9, 2020, respectively, SEMAS/Pará and FUNAI present their preliminary manifestations, arguing the same as VALE and IBAMA.</p> <p>On December 29, 2020, VALE Vale submitted the request for suspension of the lawsuit due to the procedural agreement signed with the MPF and Indigenous Associations within the scope of Public Civil Action 002383-85.2012.4.01.3905, which had as its object the interruption of the procedural procedure to enable the composition, the so that an agreement is signed that puts an end to the existing legal actions between the parties. On February 9, 2021, VALE filed a petition in the records to inform the dismissal of the lawyer representing the Plaintiff Associations, as well as to reiterate the request for suspension of the procedural course on account of the agreement concluded.</p>

Chances of loss	Remote, given that the proceeding is in the early stages and the defense theses are presented.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Since this process is at an early stage, we cannot reasonably estimate its impact.
Notes	Not applicable.

27) Case No. 1002171-66.2020.4.01.3905	
Court	Federal Court Judiciary Section of Redenção
Instance	Trial Court
Date of filing	07/30/2020.
Parties	Associação Indígena Kakarekré de Defesa do Povo Xikrin do djudjêkô, Associação Indígena Bayaprá de Defesa do Povo Xikrin do O-Odja, Associação Indígena Porekro de Defesa do Povo Xikrin do Catetê and Associação Indígena Djôre de Defesa do Povo Xikrin do Pokrô ("Plaintiff Associations") and VALE, FUNAI, IBAMA and ANM (jointly "Defendants")
Amounts, goods or rights involved	The value of the case attributed by the Plaintiff Associations is BRL 1,000,000,000.00. Having in mind the object and the case progress, the Company considers being the value involved in a likely conviction invaluable.
Main facts	<p>On July 30, 2020, the Plaintiff Associations joined the ACP, claiming that, because the Onça Puma enterprise is located in an old indigenous cemetery and that this fact would configure the place as indigenous territory, the plaintiffs would have the right to participate in the result of the (royalties) and that the payment of this right should be retroactive to the first month of operation of the Onça Puma project, requiring the granting of a preliminary injunction requiring VALE to pay the alleged participation in the mining result on a monthly basis.</p> <p>On October 26, 2020, the court dismissed the injunction filed by the plaintiff associations and determined the defendants' summons.</p> <p>On December 7, 2020, ANM filed a challenge in the case file, alleging the illegitimacy of participation in the process and the impossibility of requests made by the Plaintiff Associations due to the area where the Onça Puma project is located not being indigenous land. On December 15, 2020, VALE submitted the request for suspension of the action considering the procedural agreement concluded with the MPF and Indigenous Associations within the scope of Public Civil Action 002383-85.2012.4.01.3905 and whose object was to interrupt the procedural procedure to enable the composition, so that an agreement can be signed that puts an end to the existing legal actions between the parties.</p> <p>On January 8, 2021, FUNAI filed a challenge in the records, arguing the same as ANM.</p>
Chances of loss	Remote, given that the proceeding is in the early stages and the defense theses are presented.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Since this process is at an early stage, we cannot reasonably estimate its impact.
Notes	Not applicable.

28) Case No. 1002950-33.2020.4.01.3901	
Court	2nd Federal Civil Court Judicial Section of Marabá
Instance	Trial Court
Date of filing	07/16/2020.
Parties	Associação Indígena Kakarekré de Defesa do Povo Xikrin do Djudjêkô, Associação Indígena Bayaprá de Defesa do Povo Xikrin do O-Odja, Associação Indígena Porekro de Defesa do Povo Xikrin do Catetê and Associação Indígena Djôre de Defesa do Povo Xikrin do Pokrô ("Plaintiff Associations") and VALE, FUNAI, IBAMA, ICMBio, União and ANM (jointly "Defendants")
Amounts, goods or rights involved	The value of the case attributed by the Authoring Associations is R \$ 2,000,000,000.00. In view of the object and the progress of the process, the Company understands that the amount involved in an eventual invaluable conviction at this time.
Main facts	On July 16, 2020, the Authoring Associations filed with ACP, claiming that the German Project's environmental licensing is riddled with error, due to the failure to carry out the Indigenous Component Study (ECI) linked to this enterprise, and that the Community Xikrin would be entitled to compensation for damages caused by the Igarapé Bahia Mine project, already closed.

	<p>On July 24, 2020, the deed dismissed the request to redistribute the deed to the 1st Civil Court, declaring the 2nd VCF Marabá competent to know and process the deed.</p> <p>On July 28, 2020, the Indigenous Associations filed a request for reconsideration regarding the refusal to redistribute the deed.</p> <p>On August 3, 2020, the judgment of the 1st VCF Marabá declared itself incompetent to know and process the deed.</p> <p>On August 4, 2020, the Indigenous Associations petitioned in the records informing the filing of an interlocutory appeal against the decision that rejected the redistribution request.</p> <p>On November 13, 2020, the judgment of the case determined the summons of the defendants.</p> <p>On November 30, 2020, the Indigenous Associations petitioned in the file presenting a question of order requesting the establishment of a conflict of jurisdiction between the 1st and 2nd VCF of Marabá.</p> <p>On February 25, 2020, the deed clears in the case file reiterating the determination to summon the defendants, disregarding, indirectly, the request to raise a conflict of jurisdiction.</p> <p>On March 8, 2021, a precatory letter was issued to quote VALE in Rio de Janeiro.</p> <p>On April 5, 2021, VALE filed its defense in the file alleging, in summary, the illegality of the requests, the regularity of the licensing process for the German Project and the lack of the right to compensation sought. In addition, VALE submitted the request for suspension of the lawsuit due to the procedural agreement signed with the MPF and Indigenous Associations within the scope of Public Civil Action 002383-85.2012.4.01.3905, which had as its object the interruption of the procedural procedure to enable the composition, so that an agreement is signed that puts an end to the existing legal actions between the parties. The Company is awaiting the court's decision on this request.</p> <p>On May 9, 2021, IBAMA presented its defense in the case, alleging, in summary, the same arguments as VALE and the existence of lis pendens with ACP Xikrin / Ferro.</p> <p>On May 22, 2021, the Federal Government presented its defense, arguing the same as IBAMA.</p> <p>On May 30, 2021, ICMBio presented its defense, arguing the same as IBAMA.</p> <p>On 03 out of more than 2021, FUNAI presented its defense arguing the same as IBAMA.</p> <p>On May 10, 2021, the case file was concluded for the judge of the case for the assessment of the pending requests and the requests for defense.</p>
Chances of loss	Remote, given that the proceeding is in the early stages and the defense theses are presented.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Since this process is at an early stage, is not possible to estimate its impact.
Notes	Not applicable.

(v) Criminal

1) Case No. 0002725-15.2016.4.01.3822	
Court	Only Court of Federal Justice of Ponte Nova
Instance	Trial Court
Date of filing	10/20/2016
Parties	Public Federal Ministry ("Author") and Samarco, Vale, BHPB, VogBr Recursos Hídricos e Geotecnia Ltda. and some individuals who were employees of Samarco or members of the governance departments or consulting councils of Samarco (jointly "Defendants")
Amounts, goods or rights involved	Not applicable

Main facts	<p>On October 2016, the MPF filed a criminal action against the Defendants, accusing them of murder, bodily injury and various environmental crimes due to the rupture of the Samarco's dam.</p> <p>Together with the accusation, the MPF is seeking a precautionary measure for seizing assets of the three companies and warrant the payment of the R\$20 billion as indemnification for the damages caused by the rupture of the Fundão dam and is also seeking the imposition of external monitoring of the ethical and socioenvironmental practices of the companies for 10 years. The decision is still pending in the files of the assertory measures.</p> <p>On November 2016, the denunciation was received by the judge, commencing the criminal case.</p> <p>On March 2017, Vale presented its answer to the accusation.</p> <p>On July 2017, the court of Ponte Nova determined the suspension of the case and the sending of official notices to the telephone providers for them to inform the periods in which occurred the calls interception deferred during the police investigations, so as to check for eventual nullity due to the non-observance of the legal period for that.</p> <p>On November 13, 2017, the Ponte Nova court resumed its investigation by means of a pretrial order that maintained the telephone interceptions in the records, but determined the striking of Samarco's corporate chats that were outside the time period, which collection had previously been legally authorized when the search warrant in Samarco was granted.</p> <p>All prosecution witnesses resident in the country were heard. Due to the judgment of three Habeas Corpus by the Federal Regional Court 1st Region (TRF1), filed with the objective of removing the process from the jury's rite, which had the order granted and the effects extended to all those denounced.</p> <p>On May 2, 2019, the judgment of Ponte Nova determined the change of the procedural class from the jury's rite to ordinary common rite, determining, at the end, the opening of views to the Federal Public Prosecutor's Office and, successively, to the defenses, for subsequent application of article 397 of the Code of Criminal Procedure (summary acquittal).</p> <p>On May 13, 2019, the Federal Prosecution Office presented its statement, at which time it ratified its complaint and filed the request for international cooperation with Canada for the hearing of its witnesses residing there.</p> <p>After presenting the defenses' manifestations, on September 20, 2019, the judgment of Ponte Nova/MG issued a decision in which it rejected the accusations in relation to the ex-executives, current and ex-employees of Vale, who spoke, as to individuals, on imputations of potential crimes, including homicides, landslides and flooding. Vale remains denounced in the aforementioned accusation, for the practice of alleged environmental crimes. The Company, together with an employee, remained indicted in another indictment, related to the alleged omission of information from a public administration body.</p> <p>In 2020, some hearings were designated, but due to the epidemic caused by COVID-19, the judge in Ponte Nova ordered the cancellation of all hearings.</p> <p>In February 2021, the Federal Public Prosecutor's Office presented a manifestation requesting the resumption of the hearings through conference call.</p> <p>In March 2021, the court ordered defenses to speak out on the MPF's request.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss or preliminary injunction, there is a risk of conviction of the individuals and legal entities to the sentences provided for by the Law nº. 9.605/98 with consequent financial and image impact to the legal entities and to the individuals.
Notes	Not applicable.
2) 0021378-63.2018.4.01.380 Case No. 0004766-45.2016.8.19.0030	
Court	Court of Mangaratiba/RJ

Instance	Trial Court
Date of filing	December 6, 2016.
Parties	Plaintiff: Public Prosecutor's Office Defendant: MBR's former directors
Amounts, goods or rights involved	On December 31, 2020, the amount involved in the tax proceeding related to the criminal action was approximately R\$9.1 million, fully guaranteed by an insurance policy.
Main facts	<p>The complaint relates to the alleged conduct of tax evasion by former directors of the company, relating to the tax assessment notice issued by the State of Rio de Janeiro for the collection of ICMS's debts (value-added tax on sales and services), allegedly due on ore re-sanding activities in its port facilities.</p> <p>Vale understands that the allegations are unfounded. The defendant presented evidence and arguments in the criminal proceeding, and a decision is pending.</p> <p>The tax collection is under discussion at the judicial level through a tax foreclosure proceeding that has already been challenged by Vale. The proceeding is in the phase of expert evidence production. Vale presented, as borrowed evidence, a favorable expert report, produced in a similar tax action (also relating to ICMS on ore re-sanding in port facilities), in which a favorable trial court decision was obtained and appeal by the State of Rio de Janeiro are pending.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss of the tax case, Vale will pay the debt. If the debt is paid, the criminal proceeding will be closed and the officers will no longer be punishable. The proceeding is relevant due to the allegation of a potential tax offense.
Notes	In case the tax case is ruled in favor of the company, the former directors in the criminal case will be no longer be punishable.

3) Case no. 15460-44.2018.810.0001

Court	8th Criminal Court of São Luís/MA
Instance	Trial Court
Date of filing	Complaint received on February 19, 2019.
Parties	Active Pole: Public Prosecutor's Office Passive Pole: VALE and former VALE officers
Amounts, goods or rights involved	It is about a criminal prosecution. The crimes provided for in Law 9,605/1998, art. 54, §2, II (Air Pollution) are imputed.
Main facts	<p>The complaint refers to the imputation of alleged conduct of Emission of air pollution, potentially harmful to human health, in breach of CONAMA Resolutions 003/1990 and 008/1990. The emission of particulates in breach of law allegedly occurred on December 15 and 16, 2011. The defenses in the lawsuit were timely filed.</p> <p>On September 1, 2020, a sentence was partially upheld to exclude Vale's then executive officers from the Criminal Action, and the lawsuit will continue in the face of the Company.</p> <p>On January 22, 2021, a decision was issued designating an instruction hearing for May 3, 2021, which was later rescheduled for June 25, 2021.</p>
Chances of loss	Possible, given that the Superior Court of Justice (STJ), in the judgment of EResp 1417279/SC (3rd Section), of April 11, 2018, constituted a judicial precedent, which started to consider as formal the first part of the crime of Pollution (LCA, art. 54), dispensing with the need for the prosecution to present an expert that confirmed the existence of damages, simply indicating the potential risk of harm to human health. For individuals, the likelihood of loss is remote, due to the sentence that excluded the officers from the dispute.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss or preliminary decision, there is a risk that the legal entity will be sentenced to the penalties provided for in Law no. 9,605/98 with consequent financial and image impact.
Notes	Not applicable.

4) Case No. 0138811-17.2018.8.13.0245

Court	1st Criminal Court of the District of Santa Luzia/MG
Instance	Trial Court
Date of filing	May 2020
Parties	MPMG (plaintiff) Vale and Ana Luiza Almeida (defendants)
Amounts, goods or rights involved	Impaired amount, as it is a criminal demand. Alleged violation of articles 38, 68 and 69-A of Law No. 9,605/98
Main facts	This is a criminal action resulting from a complaint offered by the MPMG against Vale and its collaborator Ana Luiza Almeida, imputing to them the crimes provided for in articles 38, 68 and 69-A of Law No. 9,605/98.

	<p>The alleged criminal offenses date back to the environmental intervention carried out, in 2017, at the Mining Development Center located in Santa Luzia/MG, when it was necessary to suppress (authorized) seventy-one tree specimens, in view of the risk of destabilization of the embankment existing there.</p> <p>On May 4, 2020, the Public Prosecutor's Office offered said complaint.</p> <p>On June 10, 2020, the Judicial Authority received the aforementioned complaint, and Vale and its collaborator Ana Luiza Almeida were summoned to submit their responses to the accusation.</p> <p>On February 23, 2020, Vale was summoned to respond to the accusation in ten days, when it will defend that said intervention was carried out in absolute compliance with the legislation, seeking its acquittal.</p>
Chances of loss	Possible
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	Any conviction will result in the payment of a fine.
Notes	Not applicable.

5) Case No.0003237-65.2019.8.13.0090	
Court	2nd Civil, Criminal and Criminal Execution Court of the District of Brumadinho/MG
Instance	Trial Court
Date of filing	02/14/2020
Parties	Public Prosecutor's Office of Minas Gerais ("Plaintiff") and Vale, Tuv Süd, and certain individuals who were employees of Vale and Tuv Süd (together "Defendants")
Amounts, goods or rights involved	Not applicable
Main facts	<p>In January 2020, the Public Prosecutor's Office of Minas Gerais filed a complaint against the defendants in order to seek their responsibility for the breach of Dam I, at the Córrego do Feijão mine, in Brumadinho/MG, on January 25, 2019. The Public Prosecutor's Office of Minas Gerais attributes the crimes of double-qualified homicide to the defendant individuals and all the defendants of the Environmental Crimes Law.</p> <p>In February 2020, Brumadinho's court received the complaint and ordered the defendants to be served with a response to the indictment. Also in February, one of the individuals filed Habeas Corpus before the Court of Justice of Minas Gerais to request the lock of criminal proceedings in relation to him based on the incompetence of the Brumadinho court to prosecute and judge the case and had the injunction request for overwriting the deed immediately rejected. Habeas Corpus has not yet been judged on the merits.</p> <p>In March 2020, some defendants were cited and one of the individuals raised a conflict of jurisdiction before the Superior Court of Justice on the grounds that the competent court is that of the 9th Federal Court of Belo Horizonte.</p> <p>In June 2020, the conflict of jurisdiction was not known by the Superior Court of Justice.</p> <p>In December 2020, VALE was cited.</p>
Chances of loss	Possible.
Impact analysis in case of loss/ Reasons of the relevance of the lawsuit for the Company	In case of loss, there is a risk that individuals and legal entities will be sentenced to the penalties provided for in Law No. 9.605/98 with consequent financial and image impact to the legal entities and to the individuals. Individuals still face the risk of receiving the penalties provided for the crime of homicide.
Notes	Not applicable.

4.3.1. – Indicate the total amount for this provision, if any, of the cases described in item 4.3

(i) Labor

As of December 31, 2020, the total amount provisioned, considering the 10 labor claims described in subitem (i) of item 4.3 above, was approximately BRL 10.147 million.

(ii) Taxes

As of December 31, 2020, there was no provision for the 6 tax proceedings described in sub-item (ii) of item 4.3 above, due to the prognosis attributed to the proceedings.

(iii) Civil

As of December 31, 2020, there was no provision for the 29 civil lawsuits described in sub-item (iii) of item 4.3 above, due to the prognosis attributed to the lawsuits.

(iv) Environmental

As of December 31, 2020, the total amount provisioned, considering the 27 environmental proceedings described in subitem (iv) of item 4.3 above, was BRL 4.883 million.

(v) Criminal

As of December 31, 2020, there was no provision for the 5 criminal proceedings described in subitem (v) of item 4.3 above.

4.4 - Judicial, administrative or arbitral non-confidential cases whose opposing parties are administrators, ex-administrators, controllers, ex-controllers or investors

The tables below present an individual description of the administrative or arbitral non-confidential cases whose opposing parties are administrators, ex-administrators, controllers, ex-controllers or investors of the Company:

1) Case No. 0079940-46.2010.4.01.3800	
Court	18 th Federal Court of Belo Horizonte – Minas Gerais
Instance	Trial Court
Date of filing	02/18/2004
Parties	Transger S/A (author) and Ferrovia Centro Atlântica S/A, Mineração Tacumã Ltda., KRJ Participações S/A, CPP Participações S/A, Carmo Administração e Participações Ltda., Fundação Vale do Rio Doce de Seguridade Social - Valia and Companhia Siderúrgica Nacional - CSN (defendants)
Amounts, goods or rights involved	Invaluable – Request for annulment of assembly.
Main facts	<p>The plaintiff filed an action requiring, in addition to the indemnification, the annulment of the assembly which authorized the capital increase of the Ferrovia Centro-Atlântica S.A. - FCA ("FCA") in 2003, on account of the supposed practice of unlawful acts by the controlling group of FCA. The sentence that had upheld the action was annulled by the Court of Law of Minas Gerais, who determined the execution of new expert evidence. During the new expertise, the Agência Nacional de Transportes Terrestres ("ANTT") manifested interest in participation of the claim and, for this reason, the competence for judgment of this case was moved to the Minas Gerais Federal Justice.</p> <p>The judge of the 18th Federal Court of Belo Horizonte rendered decision recognizing the competence of the Federal Justice to judge the case, on account of the ANTT interest in the maintenance of the concession and healthiness of the administrative act. ANTT manifested in the case, ratifying his understanding of the validity of the act that authorized the increase of the share capital of FCA. The judge rendered decision closing the procedural instruction of the case and opened a deadline for final allegations. All the parties presented its final allegations, including ANTT, without prejudice of appealing (amendments of judgment and appeals held) in function of the decision which declared concluded the procedural instruction of the case.</p> <p>New decisions were rendered keeping this position, as well as that the discussion about the necessary active co-parties of two shareholders who are not parties in the dispute (Sérgio Feijão and Associação da Preservação da Memória Ferroviária) is already precluded. This last understanding was the object of the interposition of the bill of review and appeal held – considering that the decision was uttered before the validity of the CPC/15 – by the involved societies.</p> <p>On November 10, 2016, it was held a conciliation hearing, deciding for the concession of time for Transger to bring agreement proposals. Two were presented, and both were refuted, in petitions recorded on January 23, 2017, by the demanded societies, in reason of the lack of reasonableness and for being based in the expert report produced in the files. Only VLI (Mineração Tacumã) made a counterproposal, which was refuted by Transger on February 6, 2017. On the same occasion, the Author made a request for an interlocutory injunction, aiming to anticipate the effects of the possible favorable sentence. Additionally, on March 31, 2017, Transger petitioned an injunctive relief aiming to suspend deliberations on the possible grouping of FCA stocks in OGM/EGM assigned for April 28, 2017.</p> <p>On April 20, 2017, The Judge rendered decision highlighting the impossibility of agreement and determining the conclusion of the files for sentence. In that opportunity, she consigned that the injunctive relief would be appreciated in the own sentence. However, on September 20, 2017, she delivered judgment opening view to the demanded on the requirement of an interlocutory injunction. The deadline for manifestation ended on October 10, 2017.</p>

	<p>After the record of the manifestations on October 10, 2017, the files were sent to ANTT, who presented manifestation on October 16, 2017. On October 5, 2017, FCA spontaneously attached to the files statement prepared by Nelson Eizirik dealing on the "legitimacy of the request for annulment of the deliberation that approved, on May 14, 2003, the increase on the share capital of FCA". In view of the opinion, the Judge decided to remand the case for attachment of the petition with the opinion and resulting permission for the parties to see the opinion within 5 days, in accordance with a decision published on January 12, 2018. Transger submitted its statement concerning the opinion on January 29, 2018, and therefore, the statement of the Company regarding the opinion was submitted on February 08, 2018. Then, the ANTT was granted permission to see the records, and issued its statement on April 3, 2018, having reiterated the legality of the capital increase questioned by Transger. On April 6, 2018 the files returned for conclusion, and therefore, a new decision was awaited.</p> <p>On June 6, 2019, the judgment was published, partially upholding the plaintiff's claim and ordering the Defendants to pay the indemnity in favor of the plaintiff in the amount of R\$ 56,352,307.12, updated until May 2019, to be prorated among the defendants in the current proportion of the shareholding control in relation to former RFFSA. If the obligation to pay in June is not complied with, interest and adjustment for inflation will be charged as of that date, pursuant to the Federal Court Calculation Manual. The defendants were ordered to hold a new election that guarantees the participation of former railroad workers in the Board of Directors of the Parent Company, and to bear attorneys' fees in the percentage of 10% on the total sentence in favor of the plaintiffs' lawyers, considering loss of suit by both parties.</p> <p>On June 19, 2019, KRJ Participações S/A, CPP Participações S/A, Carmo Administração and Participações Ltda. filed a motion for clarification against the terms of the judgment. To date, a judge's decision is awaited as to the motion for clarification submitted by all parties (plaintiff and defendants).</p>
Chances of adverse judgment	Possible
Impact analysis in case of an adverse decision	Invaluable value. The case is relevant by virtue of the request for annulment of the Special Shareholders' Meeting, which authorized the capital increase of FCA in 2003.
Notes	Not applicable.

2) The original case was assigned to the Judicial District of Juiz de Fora/MG and as the alleged jurisdictional defense has been accepted, the case was referred to the 7 th Business Court of Rio de Janeiro, receiving the No. 0354058-47.2015.8.19.0001	
Court	7 th Business Court of the Judicial District of Rio de Janeiro
Instance	Trial Court
Date of filing	01/24/2013
Parties	SUDFER (author) and Júlio Fontana Neto, Henrique Aché Pillar, José Paulo de Oliveira Alves, Pablo Javier de La Quintana Bruggemann, Lauro Henrique Campos Rezende, Wanderlei Viçoso Fagundes, Hugo Serrado Stoffel, Guilherme Frederico Escalhão, Delson de Miranda Tolentino, Marcus Jurandir de Araújo Tambasco, Chequer Hanna Bou-Habib, Roberto Gottschalk, Joaquim de Souza Gomes, Luiz Antônio Bonaguara, Company Siderúrgica Nacional S.A., Minerações Brasileiras Reunidas S.A. - MBR, Usiminas – Usinas Siderúrgicas de Minas Gerais, Gerdau S.A. and Vale S.A. (defendants).
Amounts, goods or rights involved	Invaluable.
Main facts	Clube Sudfer, as a minority shareholder of MRS Logística S.A. ("MRS"), filed a lawsuit against the officers, the members of the Board of Directors, and the controlling shareholders of MRS (among them, Vale). It claims that the officers and directors allegedly committed mismanagement by approving a tariff model harmful to MRS, which was in force from 1998 to 2002. They claim that there was a conflict of interests between the controlling shareholders and MRS, as long as, in the condition of captive customers of the railroad network, it was profitable for such customers the establishment of rates below the value practiced in the market. As a result of the adoption of the tariff model, MRS would have had losses, without the distribution of dividends to the shareholders. As no dividends were distributed, they claim that they would not have paid their financial obligations to third parties and, in addition, could not obtain financing from BNDES to participate in the second offering of MRS securities, within the privatization process. Based on these allegations, it claims: (i) the conviction of the defendants for the payment of indemnification for moral damages, in the amount of R\$ 150,000; (ii) the conviction of the controlling shareholders to

	<p>comply with the obligation to do, consisting of the sale, in proportion to the interest of each, of 3,744,440 shares of MRS, at the same price and under the same conditions established in the privatization Request for Proposals; and (iii) considering the shareholding claimed, it requires the conviction of the defendants to pay all the differences related to the unpaid dividends.</p> <p>On March 15, 2012, Vale, MBR, and the former directors of MRS, Messrs. Chequer Hanna Bou-habib, Guilherme Frederico Escalhão, Hugo Serrado Stoffel, and Roberto Gottschalk presented their defenses. Vale raised, yet, procedural issues (jurisdictional defense), aiming to have the case sent to the District of Rio de Janeiro. A decision was rendered, accepting this allegation and determining the remittance of the records to the Judiciary of Rio de Janeiro. Against said decision, the Clube Sudfer lodged an interlocutory appeal, which was not accepted in July 2012. In view of the refusal, the Clube Sudfer filed a Special Appeal, which has been pending before the STJ waiting for judgment since February 2013. On August 2015 the case was sent to Rio de Janeiro, after res judicata of the decision that accepted the jurisdictional defense presented by Gerda. The claim was sent to the 7th Business Court of the State of Rio de Janeiro, having the notary certified the existence of process not served upon some of the defendants. SUDFER was served with summons, on November 16th, 2015, to make a statement on the pending summons, which have not yet been served so far. Not all the defendants in this lawsuit have been served with process yet. Actually, on July 5, 2017, an announcement was published for the service of process upon the Estate of Wanderlei Viçoso Fagundes and Lauro Henrique Campos.</p> <p>On January 8, 2018, the default of the Defendants that were summoned by notice was adjudicated; however, they were granted a Special Curator, pursuant to Law. On 9, April 2018, it was published by decision for the parties to manifest if they have interest in the holding of a conciliation hearing, in addition, to specifying the evidence they intend to produce. On April 24, 2018, Vale recorded petition informing that does have interest in a conciliation hearing, as well as has no more evidence to be produced, as it is a matter of rights. On May 2, 2018, a decision was published ordering the plaintiff to issue its opinion on the allegations presented by the defendants, and the deadline is still running.</p> <p>On August 27, 2018, a judgment was issued, and the claim was dismissed as unfounded, as a result of the limitation period.</p> <p>Against the judgment, SUDFER filed motion for clarification on September 24, 2018; however, they were rejected, according to a decision published on November 16, 2018.</p> <p>SUDFER filed an appeal, and the defendants were granted permission to see the records of the appeal, in order to file their briefs.</p> <p>Then, the defendants filed an appeal only to increase the costs of loss of suit set in the judgement.</p> <p>The suit was sent to the TJ/RJ on May 31, 2019 and assigned to the 18th CC. On June 26, 2019, it was examined, and the appeals were unanimously rejected.</p> <p>At the end of June, MRS and SUDFER started an extrajudicial agreement aimed at dismissing the disputes they had between them. MRS conditioned that the extrajudicial agreement should also reach the lawsuits brought by the CLUB against the controlling shareholders and Board members of MRS, such as this dispute, which would result in SUDFER abandoning this action.</p> <p>The extrajudicial agreement was entered into by MRS and CLUBE in early July 2019, with MRS shareholders integrated into it.</p> <p>On July 12, 2019, CLUBE SUDFER filed a petition to waive the right to appeal against the appellate decision, and thus filing for the dismissal of the dispute with judgment on the merits. The petition was signed jointly by the defendants in the lawsuit, presented by their lawyers. The request was ratified on August 15, 2019.</p> <p>On September 2, 2019, the decision that ratified the request for waiver in appellate court became final and unappealable. In trial court, a decision was issued determining compliance with the appellate decision, which took place on September 10, 2020.</p>
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	Final processing is awaited by the notary for the process to be remanded.
Chances of adverse judgment	Possible.
Impact analysis in case of an adverse decision	Any adverse decision in the case would result in financial loss and reputational damage to the Company.
Notes	Final processing is awaited by the notary for the process to be remanded.

5) Process No. 1:15-cv-09539	
Notes	The said proceeding is already described in item 4.3 above. For information, see process information on Table 10 of subitem "(iii) Civil" of item 4.3 of this Reference Form.

4.4.1. – Indicate the total amount for this provision, if any, of the proceedings described item 4.4

On December 31, 2020, there was no provision created for the proceedings mentioned on item 4.4 above.

4.5 – Relevant confidential claims

Item 4.5 comprises secret proceedings considered relevant to the Company's and/or its subsidiaries' businesses as of December 31, 2020. For the relevant proceedings, as applicable, after December 31, 2020, see item 4.7 of this Reference Form.

1) Case No. 0393909-98.2012.8.19.0001	
Amounts, goods or rights involved	<p>Amount involved in the case, according to the Company analysis of December 31, 2020: R\$ 241,161,249.12.</p> <p>Discussion regarding the maturity of debentures. The claim was granted, against Vale's interests, the appellate decision was affirmed.</p> <p>The parties entered into an agreement in mid-2018, which was ratified in October 2018. The deadline for compliance with the agreement is awaited.</p>
Impact analysis in case of an adverse decision	Any adverse decision in the proceeding would generate financial loss for the Company.

2) Case No. 1015425-06.2019.4.01.3400	
Amounts, goods or rights involved	Invaluable value. It is a citizen suit for the purpose of preventing CADE from authorizing Vale to acquire a specific company.
Impact analysis in case of an adverse decision	The lawsuit is relevant due to the economic impact in the event of possible annulment of the business carried out, in addition to having reputational/image impacts.

3) Case No. 00190.104883/2020-98	
Amounts, goods or rights involved	<p>Up to 20% of gross profit for 2018.</p> <p>The Office of the Federal Controller General has initiated an administrative accountability process (PAR) against Vale, on the grounds of art. 5th, item V, law No. 12846/13, on the grounds that the company would have obstructed the supervision of the National Mining Agency (ANM) by adding incomplete or untrue information in the SIGBM regarding Dam I, located in the Córrego do Feijão mine, in Brumadinho/MG, and presenting a false Stability Condition Statement (DCE) in September 2018 for the same structure.</p>
Impact analysis in case of an adverse decision	In case of an adverse decision, there is a risk of judgement against the Company for the payment of a fine calculated on the annual gross revenue of 2018, from 5% to 20% of this total amount.

4) Case No. 02/2020	
Amounts, goods or rights involved	<p>Up to 20% of gross profit for 2018.</p> <p>The Office of the Controller General of the State of Minas Gerais has initiated an administrative accountability process (PAR) against Vale, on the grounds of art. 5th, item V, law no. 12,846/13, on the grounds that the company would have obstructed the supervision of FEAM by submitting a false Stability Condition Statement (DCE) for Dam I, located in the Córrego do Feijão mine, in Brumadinho/MG, in September 2018, and the presentation of the same document, together with its audit report, in November 2018, to the Public Prosecutor's Office of Minas Gerais.</p> <p>In March, 2021, Vale filed a writ of mandamus against this PAR, on the grounds of <i>bis in idem</i>, and considering that the imposition of the penalty in the form of a fine has already been requested in the judicial sphere by the Public Prosecutor's Office of Minas Gerais, it presented his written defense before the Office of the Controller General of that State and had the injunction judicially granted in order to suspend the PAR.</p> <p>It is currently suspended.</p>

Impact analysis in case of an adverse decision	In case of an adverse decision, there is a risk of judgement against the Company for the payment of a fine calculated on the annual gross revenue of 2018, from 5% to 20% of this total amount.
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5) Arbitrations proposed by minority shareholders, a professional class association, and foreign investment funds (No. 136/19, 137/19 and 172/20)	
Amounts, goods or rights involved	<p>In Brazil, Vale is defending itself in (i) an arbitration filed by 166 minority shareholders, (ii) an arbitration filed by a professional class association that intends to represent all minority shareholders of Vale, and (iii) an arbitration brought by foreign funds.</p> <p>In the three arbitrations, the Claimants allege that Vale was aware of the risks associated with the B1 dam in Brumadinho, and that it failed in its obligation to disclose such risks to shareholders, which would be required by applicable Brazilian laws and the rules of the Securities and Exchange Commission. On the grounds of this argument, they claim compensation for damages arising from the devaluation of the shares held by the Claimants.</p> <p>Based on the evaluation of the Company's legal advisors, the expectation of loss is classified as possible for the three procedures and, considering the initial phase, it is not possible at this time to reliably estimate the amount of a possible loss.</p> <p>In the proceeding brought by foreign funds, the Claimants estimated in their petition that the amount of the alleged losses would be approximately R\$1.8 billion. The Company disputes the ongoing proceedings and understands that, for this case and in the current phase of the proceeding, the probability of loss in the amount claimed by foreign funds is remote.</p>
Impact analysis in case of an adverse decision	Any adverse decision in the cases would generate financial loss for the Company, in addition to reputational/image consequences.

4.6 - Publicly known, relevant, repeated or related in-court, administrative or arbitration proceedings

The items below show a description of publicly known and relevant or related in-court, administrative or arbitration proceedings started until December 31, 2020. For information on relevant lawsuits instituted or in which the Company was cited after said date, see item 4.7 of this Reference Form.

(i) Labor

In this the Reference Form, section 4.6, the provision amounts of repeated or related proceedings are highlighted. Considering the size of the Company, the number of employees and service providers and the number of labor claims, all cases deemed recurrent were those representing more than 5% of the total claims against the Company, on December 31, 2020, which are described in the table below, namely: joint and several/secondary liability (28%); overtime (17%); hazard pay and premium for dangerous work (7%); emotional distress (6%); injunction (6%) attorneys' fees (5%).

Legal fact and/or cause	The most recurrent objects are secondary/joint and several liability, overtime and premium for dangerous work and hazard.
Amounts involved	R\$10.4 billion.
Company or its controlled company practice that caused such contingency	Difference of interpretation given by the Company, employees and unions to various facts, legal and regulatory instruments concerning the issues above.

(ii) Taxes

Legal fact and/or cause	Collection of isolated fines in 50% of the value of unapproved compensations.
Amounts involved	R\$ 1.5 billion (as of December/2020)
Company or its controlled company practice that caused such contingency	Vale, its subsidiaries and former investees whose liabilities remain under Vale's responsibility have received several tax assessments from the Brazilian Federal Revenue Service ("RFB"), each imposing fines equal to 50% of the value of unapproved compensations to settle federal debts. The RFB understands that the offsets were made with undue tax credits. These fines were contested by the companies. The rejection of the offsets is also discussed by the companies in other proceedings. If such proceedings are successful, the corresponding fine should be cancelled. The validity of the 50% fine for undue offsetting is under discussion in a leading case before the STF, and a favorable decision will benefit all taxpayers that are discussing this matter. New collections on this issue may be received by companies.

Legal fact and/or cause	Discussions about the calculation of the Financial Compensation for the Exploration of Mineral Resources ("CFEM")
Amounts involved	R\$ 11.1 billion (as of December/2020)
Company or its controlled company practice that caused such contingency	<p>Vale, its subsidiaries and former investees whose liabilities remain under the Vale's responsibility are party to a number of administrative and judicial proceedings relating to the collection of CFEM credits. The proceedings originated in collections filed by the former National Mineral Production Department ("DNPM"), succeeded by the National Mining Agency ("ANM"), which main discussions involve the deduction of insurance and transportation costs and taxes indicated in the invoices, as well as the application of this compensation on pellets and revenues from sales carried out by the Company's subsidiaries abroad.</p> <p>In 2013, the companies paid amounts related to transportation, not indicated in the invoices and not preempted, considering the statute of limitations period of 5 years.</p> <p>The former DNPM alleged that the applicable statute of limitations for CFEM collections would be 20 years. The companies argued that the applicable statute of limitations would be 5 years. In December 2015, the Office of the Federal</p>

	<p>Attorney General ("AGU") issued a legal opinion concluding that CFEM collections are subject to a 10-year statute of limitations. This conclusion is in line with the decisions of the Superior Court of Justice ("STJ").</p> <p>In 2016, the complementary discharge of the transportation amounts not highlighted on a bill and not decayed was carried out considering the 10-year statute of limitations period.</p> <p>In April 2020, the ANM reviewed the collections made and notified the companies about the deduction of the time-barred amounts (according to the AGU's opinion) and the payments that had been made. A statement was presented regarding the amounts indicated by the ANM.</p>
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Legal fact and/or cause	Taxation on Profits Earned by Foreign Subsidiaries
Amounts involved	<p>For the periods from 1996 to 2002 (and glosses reflected in 2005), the amount involved as of December 31, 2019 was R\$2.3 billion, which became R\$1.00 as of May 2020, due to a favorable court decision obtained by Vale.</p> <p>For the periods from 2003 to 2012, the amount is R\$ 22.2 billion (amount parceled out in the REFIS in 2013).</p>
Company or its controlled company practice that caused such contingency	<p>In 2003, Vale filed a Writ of Mandamus to recognize the right not to be subject to taxation of IRPJ and CSLL over the profits of its subsidiaries and affiliates abroad, pursuant to art. 74 of Provisional Measure 2,158-34/2001, and later re-editions.</p> <p>The main arguments of the Company are: (i) article 74 of the Provisional Measure ignores the treaties against double taxation signed by Brazil; (ii) the Brazilian Tax Code prohibits the referred to taxation by means of a Provisional Measure; (iii) even if article 74 of the Provisional Measure were valid, the exchange variation should be excluded from the calculation of taxes due; (iv) illegality of IN 213/2002; and (v) violation of the principle of non-retroactivity, in relation to generating facts occurring before December of 2001.</p> <p>The Federal Government made several administrative and legal charges for the IRPJ and CSLL requirements on the profits earned by Vale subsidiaries and affiliates abroad, referring to the years from 1996 to 2008, and the values for the base years 2009 to 2012 were recognized by the Company for inclusion in the settlement program described below.</p> <p>In 2013, the amount under discussion was significantly reduced due to the Vale's adhesion to REFIS-TBU for the years from 2003 to 2012, except for the base year 2005, the installment related to the reflections from 1996 to 2002. Under the REFIS, Vale paid R\$5.9 billion in 2013 and have divided the remaining R\$16.3 billion in monthly installments, updated by SELIC. As of December 31, 2020, the remaining balance was R\$13.8 billion to be paid by the Company in 94 future installments</p> <p>The discussion regarding the period from 1996 to 2002, which had not been included in the REFIS, was resolved in favor of Vale with a definitive decision of the 5th Federal Court of Tax Enforcement of Rio de Janeiro. The decision determined the full cancellation of the debt in the amount of R\$ 2.3 billion (as of December/2019), on the grounds that the MP 2,158/01 could not date back to refer to facts that had occurred prior to its validity, as decided by the Federal Supreme Court (STF) in ADI 2,588.</p> <p>In March 2021, Justice Marco Aurélio, reporting justice on the Writ of Mandamus filed in 2003, dismissed the Federal Government's extraordinary appeal. The Federal Government filed an appeal against this decision, which is pending judgement.</p> <p>The decision of the STJ, which is currently in effect, determines: (i) the incompatibility between the taxation regime on the profits of controlled and affiliated companies domiciled abroad introduced by art. 74 of MP No. 2,158-35/01 with certain international treaties against double taxation; (ii) the illegality of the taxation of the positive result of equity equivalence provided for in article 7 of Normative Instruction No. 213/02 and (iii) that the profits ascertained by Vale in Bermuda are subject to art. 74, caput of MP 2,158-35/01.</p>

Legal fact and/or cause	Discussion about taking PIS and COFINS credits
Amounts involved	R\$ 5.7 billion (as of December/2020).
Company or its controlled company practice that caused such contingency	<p>Vale, its subsidiaries and former investees whose liabilities remain under Vale's responsibility have received several assessments related to PIS and COFINS credits.</p> <p>PIS and COFINS are federal taxes levied on the gross income of companies. The Brazilian tax legislation authorizes taxpayers to use certain PIS and COFINS tax credits, such as those referring to the acquisition of inputs for the production process and other items.</p> <p>The tax authorities allege, mainly, that (i) some credits taken by the companies are unrelated to the production process, and (ii) the right to use the tax credits has not been adequately proven.</p> <p>Vale has challenged these charges in the administrative and judicial proceedings.</p>

Legal fact and/or cause	ICMS collections and fines
Amounts involved	R\$ 3.28 billion (as of December/2020).
Company or its controlled company practice that caused such contingency	<p>Vale, its subsidiaries and divested companies (whose liabilities remain under Vale responsibility) discuss the value-added Tax on the Circulation of Goods and Services (ICMS) and fine in several Brazilian States. In these proceedings, the main claims of the tax authorities are: (i) undue tax crediting; (ii) noncompliance with accessory obligations (iii) tax charge in the acquisition of electricity, and (iv) payment of ICMS/DIFAL in the operations involving assets destined to the State of Pará.</p>

Legal fact and/or cause	ICMS collection on the company's own transport and fine
Amounts involved	R\$1.1 billion.
Company or its controlled company practice that caused such contingency	<p>Vale is discussing the collection of the value-added tax value-added Tax on the Circulation of Goods and Services ("ICMS") and a fine, allegedly due to the State of Minas Gerais, levied on the transportation of iron ore by Vale itself.</p> <p>The tax authorities of the State of Minas Gerais allege that ICMS (and fines) are due on the mentioned operation. Vale understands that ICMS is not due for this activity as the ore was transported by Vale to its own establishment.</p> <p>In December 2018, Vale obtained a favorable final court decision concerning the tax assessment covering the years 2009 and 2010 in the total amount of R\$ 632 million.</p> <p>The amount under discussion for the years 2011, 2012 and 2013 is R\$ 1.1 billion (included in the amount mentioned above). The State of Minas Gerais has filed appeals in the Superior Courts, which are pending judgment.</p>

Legal fact and/or cause	Charge of IRPJ and CSLL arising from the alleged non-deductibility of goodwill amortization on the acquisition of CAEMI
Amounts involved	<p>As of December 31, 2020, the total amount under discussion involved a collection of R\$1.55 billion (taxes, interest and fine) for the years 2013 to 2016, as well as a reduction of tax losses for 2013 (which tax effect corresponds to R\$129.9 million); a reduction of tax losses and negative basis for the year 2015 (which tax effect corresponds to R\$176.6 million); and a reduction of tax losses and negative basis for the year 2016 in the value of R\$13.2 million.</p>
Company or its controlled company practice that caused such contingency	<p>Vale is discussing three (3) tax assessment notices issued by the Federal Government for the collection of IRPJ and CSLL related to the years 2013 to 2016.</p> <p>Said notices sustain the non-deductibility of goodwill amortization expenses recorded by Vale on the acquisition of the company CAEMI (merged into Vale).</p> <p>The rejection of goodwill amortization expenses implied a reduction in the balance of tax losses recorded by the Company and insufficient payment of IRPJ and CSLL.</p> <p>Vale is discussing such charges in administrative proceedings.</p>

(iii) Civil

Legal fact and/or cause	Twelve suits were proposed by pension funds, which through these demands postulate the receipt of inflationary purges arising from the economic plans denominated Summer Plan and Collor Plan on the amounts paid in the contracts of purchase and sale of gold at fixed-terms entered into with Vale from 1988. Of these 12 actions, Vale had only 1 favorable final decision, already filed with TJ/RJ on July 6, 2020. Some of these decisions were made final and unappealable and Vale paid the awards. In 2020, 8 actions were still pending before the Judiciary, also with adverse decisions against the company. With this unfavorable scenario and the progress of the cases, Vale entered into settlements in 5 lawsuits, which were ratified and paid. In one of the ongoing lawsuits, Vale did not reverse the judgment and paid the sentence at the end of 2020, which caused the closure of this proceeding. Then, today are remain only 2 proceedings in progress, to which a provision was created.
Amounts involved	R\$28,219,172.17 (as of December 31, 2020) corresponding to the total amount involved in the 8 cases that were still pending before the Judiciary on December 31, 2020. The 8 lawsuits, whose decisions were rendered against the Company so far, reflect the total amount of R\$ 118,053,441.18 in the provision (as of December 31, 2020). The total amount of provisions for the remaining lawsuits currently pending with the Judiciary corresponds to R\$ 52,749,409.44, on December 31, 2020.
Company or its controlled company practice that caused such contingency	The contingency has been generated as a result of the edition of the economic plans <i>Plano Verão</i> and <i>Plano Collor</i> , both created by the Federal Government, between 1989 and 1991. The contracts, which are the subject matter of the disputes, were all paid by Vale and considered to be settled by the plaintiffs at the time. However, the plaintiffs filed a suit aimed at extending application of the decision on a matter judged in the STJ for saving accounts to contracts concluded with Vale. The Company affirms that the inflation-adjustment losses are not due.

Legal fact and/or cause	Actions involving cosmetic and/or property damages indirectly arising from the breach of Fundão tailings dam, located in the municipality of Mariana, whose subject matters are covered by ACPs 20 BI and 155 BI (cases No. 23863-07.2016.4.01.3800 and 69758-61.2015.4.01.3400), with connection being recognized by MM. Judge of the 12 th Federal Court of Belo Horizonte. These lawsuits are suspended until further judicial resolution, in view of the existence of a universal judgment and the need for a procedural unity, avoiding conflicting or contradictory decisions
Amounts involved	Until December 31, 2020, Vale had been served with process in 26 lawsuits within this category, and the amount involved is invaluable.
Company or its controlled company practice that caused such contingency	The demands plead emotional distress and/or pecuniary damages originated from Barragem de Fundão, located in the Municipality of Mariana, Minas Gerais State, property of Samarco Mineração S.A., company in which Vale holds 50% of capital share, with the remaining 50% held by BHP Billiton Brasil Ltda. ("BHPB").

4.6.1. – Indicate the total amount for this provision, if any, of the cases described in item 4.6

(i) Labor

On December 31, 2020, the total amount created for provision, considering the labor claims that are relevant together, described in subitem (i) of item 4.6 above, was approximately R\$788 million.

(ii) Taxes

On December 31, 2020, the total amount created for provision, considering the tax proceedings that are relevant together, described in subitem (ii) of item 4.6 above, was approximately R\$84 million.

(iii) Civil

As of December 31, 2020, the total amount created for provision, considering the civil lawsuits that are relevant together, described in subitem (iii) of item 4.6 above, was approximately R\$ 118 million.

4.7 - Other relevant contingencies

Additional Information on Items 4.3 and 4.7

In this item, the Company provides information on:

- (I) the relevant proceedings that have been filed or in which the Company was served with process after December 31, 2020;
- (II) relevant lawsuits for dealing with mining rights of the Company, in which, however, it is not yet a party; and
- (III) Commitment Agreements and Consent Decrees entered into by the Company or its subsidiaries, which are relevant to the business.

(I) RELEVANT PROCEEDINGS FILED AFTER DECEMBER 31, 2020

(I.a) Non-confidential, judicial, administrative or arbitration proceedings to which the issuer or its subsidiaries are a party

As of March 31, 2021, the Company and/or its subsidiaries were not party to any non-confidential arbitration.

(i) Labor

The tables below present an individual description of the labor lawsuits considered relevant to the Company's and/or its subsidiaries' businesses, or in which the Company was cited after December 31, 2020:

1) Case No. 0010165-84.2021.5.03.0027	
Court	5 th Labor Court of Betim/MG
Instance	Trial Court
Date of filing	01/24/2021
Parties	"Union of Workers in the Iron and Base Metals Extraction Industry of Brumadinho and Region" (Plaintiff) and "Labor Prosecution Office" (Legal Costs) and Vale (Defendant)
Amounts, goods or rights involved	R\$ 471,600,000.00 (amount in dispute)
Main facts	<p>On January 24, 2021, a class action was filed in which the Union-Plaintiff requests:</p> <ul style="list-style-type: none">(a) granting of injunction, with judicial blocking of the amount of R\$ 471,600,000.00;(b) statement of direct liability of the defendant for the accident that occurred at the Córrego do Feijão mine, on January 25, 2019;(c) incidental declaration of unconstitutionality of Art. 223-G, Paragraph 1, and Consolidation of Labor Laws (CLT) items I to IV;(d) adverse judgment against the defendant, determining that it pays compensation for individual cosmetic damages to fatal victims of the accident at work and direct employees, replaced with the Union-Plaintiff, in the minimum amount of R\$ 3,000,000.00 per fatal victim;(e) adverse judgment against the defendant, determining the payment of costs and attorneys' fees, in the amount of 20% on the total amount of the adverse judgment. <p>On February 23, 2021, the preliminary hearing was held, and an evidentiary hearing was scheduled for July 7, 2021.</p> <p>Rejected the request for blocking of R\$ 471,600,000.00 on April 12, 2021.</p>
Chances of adverse judgment	Possible
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for	This is a class action in which the Union-plaintiff claims compensation for domestic damages on behalf of the deceased and missing workers themselves

the Company	("death damage") due to the accident occurred on January 25, 2019 at the Córrego do Feijão Mine.
Notes	Not applicable.

(ii) Taxes

The tables below present an individual description of the tax lawsuits considered relevant to the Company's and/or its subsidiaries' businesses, or in which the Company was served with process after December 31, 2020:

1) Administrative Proceeding No. 16682.720377/2021-20	
Court	Regional Judgment Office - DRJ
Instance	1 st Administrative Instance
Date of filing	February 23, 2021
Parties in the proceeding	Federal Government (plaintiff) and Vale (defendant).
Amounts, goods or rights involved	As of February 28, 2020, the total amount in dispute was R\$2.03 billion, in addition to the reduction of tax losses and in the negative taxable base for the CSLL for the year of 2017, with a tax effect of R\$0.45 billion, plus fine and interest.
Main facts	In February 2021, Vale was assessed for Corporate Income Tax (IRPJ) and Social Contribution on Net Profit (CSLL) for the base year of 2017. This assessment was due to the allegedly unjustified deduction of intermediation costs in the Vale's calculation of the transfer price on the export of iron, copper and manganese to its subsidiary domiciled abroad. Vale has filed an objection, which is pending judgment.
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	In the event of an unfavorable final administrative decision, there will be the possibility of presenting a guarantee for discussion at the judicial level.
Notes	It is possible that similar tax assessments will be received for other years.

2) Administrative Proceeding No. 16682.720371/2021-52	
Court	Regional Judgment Office - DRJ
Instance	1 st Administrative Instance
Date of filing	February 24, 2021
Parties	Federal Government (plaintiff) and Vale (defendant).
Amounts, goods or rights involved	As of February 2021, the total amount in dispute was R\$ 3.4 billion, in relation to the year of 2017, in addition to the reduction of tax losses and negative taxable base, which corresponding tax effect is R\$ 0.69 billion, plus interest and fine.
Main facts	In February 2021, Vale was assessed for the collection of IRPJ, CSLL and fines, in the amount of R\$3.4 billion, related to the compensation of interest on shareholder's equity expenses ("JCP") deducted in the year of 2017. The tax authorities contested the JCP deductions alleging violation of the accrual basis and non-compliance with deductibility requirements. Vale has filed an objection, which is pending judgment.
Chances of adverse judgment	Possible
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for the Company	In the event of an unfavorable final administrative decision, there will be the possibility of presenting a guarantee for discussion at the judicial level.
Notes	Not applicable

3) Administrative Proceeding No. 16682-900.154/2021-44	
Court	Regional Judgment Office - DRJ
Instance	1 st Administrative Instance
Date of filing	March 8, 2021
Parties	Federal Government (plaintiff) and Vale (defendant).

Amounts, goods or rights involved	As of March 2021, the total amount in dispute was R\$2.2 billion, related to the year of 2016.
Main facts	<p>In March 2021, Vale was assessed for the collection of IRPJ, CSLL and other taxes in the aggregate amount of R\$ 2.2 billion, due to the partial homologation of the tax offset of the negative balance related to the base year of 2016.</p> <p>The tax authorities allege that the applicable rules relating to the offset in Brazil of income taxes paid abroad were not complied with.</p> <p>Vale understands that this charge is undue and has filed an objection, which is pending judgment.</p>
Chances of adverse judgment	Possible
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for the Company	In the event of an unfavorable final administrative decision, there will be the possibility of presenting a guarantee for discussion at the judicial level.
Notes	Not applicable

(iii) Civil

The tables below present an individual description of the civil cases deemed relevant for the businesses of the Company and/or of its subsidiaries, in which the Company was cited after December 31, 2020:

1) Case No. 5023635-78.2021.8.13.0024	
Court	5th Civil State Court of the Judicial District of Belo Horizonte - Court of Appeals of the State of Minas Gerais (TJMG)
Instance	First
Date of filing	02/24/2021
Parties	MPMG X VALE, SAMARCO, BHP and Renova Foundation
Amounts, goods or rights involved	An action proposed by the Public Prosecutor's Office of Minas Gerais, in which it claims that the redress of the damage caused by the breach of Fundão tailings dam, in the form that it has been conducted by RENOVA FOUNDATION, would be inefficient due to management failures attributable to Renova itself, and requires intervention in the Foundation, by means of an injunction, so that the Judicial Institutions can take over the redress governance. In the event of final relief, the MPMG requires (i) extinction of Renova and its replacement with new governance of remedy measures; (ii) adverse, joint and several judgment against the companies, determining redress for property damage caused by the misuse of purpose and torts committed by the Foundation and through it, to be determined in execution of judgment; without prejudice to the civil and criminal measures to be taken against the managers who contributed to the practice of illicit activities; and (iii) adverse, joint and several judgment against the companies, determining cosmetic damages caused by the misuse of purpose and torts committed by the Foundation and through it, in the amount of R\$ 10 billion.
Main facts	<p>On March 1, 2021, the companies presented a statement requesting the recognition of the jurisdiction and remittance of the case to the 12th Federal Court and the service of a subpoena to the Federal Court, the states of Minas Gerais and Espírito Santo to present a statement about their interest in the case.</p> <p>On March 4, 2021, a decision was rendered determining that "petitions for Provisional Emergency Protection will be analyzed, after the defendants' response being received, or up to the time limit to do so, considering the peculiarities of the case, and the effects of eventual approval".</p> <p>On March 10, 2021, the MPF (Federal Prosecution Office) presented a statement defending the jurisdiction of the State Court to judge the case and reiterating that the federal interest, sufficient to justify the intervention of both the Federal Government and the MPF in the case record, would be a possible legal interest, with an interest only in the redress of the damage, and the Renova Foundation is merely an instrument for this result.</p>

	<p>On March 22, 2021, the Federal Attorney General's Office presented its statement in the case record, filing for the enforcement of Precedent No. 150 of the Superior Court of Justice and for the remittance of the case to the Federal Court.</p> <p>The companies-defendants and the Renova Foundation filed their respective answers on March 22, 24 and 26, 2021.</p> <p>The Federal Union raised a positive conflict of jurisdiction before the STJ on May 21, in order to declare the 12th Federal Court's jurisdiction to process and judge the action. As a preliminary injunction, he requested that the deed be overturned and the Federal Court should be appointed to decide on urgent matters, since a decision on the MPMG's request for intervention in the Foundation is imminent.</p> <p>On May 25, 2021, a decision was rendered, granting the preliminary injunction requested by the Federal Government and indicating that the judgment of the 12th Federal Court was provisionally competent to consider urgent matters.</p> <p>On May 25, 2021, a decision was rendered canceling the conciliation hearing scheduled for May 26, due to the decision on the conflict of competence that determined the fact of overturning the deed.</p>
Chances of adverse judgment	Possible.
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for the Company	Claim that the Renova Foundation, whose funding entities are Vale, Samarco and BHP, would have committed torts and would be acting with misuse of purpose in the context of redress and compensation of the damage caused as a result of the breach of Fundão tailings dam. Alleged lack of independence between the Renova Foundation and its funding entities, leading to a controversial management model of redress, commanded by the "author of the damage" (Samarco and its shareholders, Vale and BHP). Failures related to the internal management of Renova, which would have led to the disapproval of its accounts for the year 2019. In the event of a court decision extinguishing the Renova Foundation, as a consequence, a new model of redress involving Samarco, Vale and BHP may be discussed or determined, which demonstrates the relevance of the action to the Company.
Notes	Not applicable.

2) Case No.1013658-23.2021.4.01.3800	
Court	13th Federal Civil Court of the Judicial District of Minas Gerais
Instance	First
Date of filing	03.23.2021
Parties	State of Minas Gerais - Attorney General of the Legislative Assembly (Claimant); Vale S.A., Federal Government and ANTT (Defendant)
Amounts, goods or rights involved	R\$ 1,000,000.00 (one million reais), equivalent to the amount in dispute and the 3rd Amendment to the Concession Agreement of the Vitória-Minas Railroad
Main facts	<p>On March 23, 2021, a complaint was filed based on alleged irregularities linked to, or produced by, the 3rd Amendment to the EFVM Concession Agreement held by Vale, namely: (i) lack of clear definition as to the items of the asset base sheet; (ii) lack of provision for the possibility that the Granting Power will disallow items unduly included in the asset base; (iii) the fact that the list of reversible assets would be drawn up "unilaterally by Vale S.A., and the Granting Authority may only check and supervise [this list]"; (iv) the fact that the study of iron ore demand transported in the EFVM, which had been prepared prior to the execution of the 3rd Amendment, as mandated by Article 8, Paragraph 1, item III, of Law No. 13448/2017, would have been produced "unilaterally, since it was based on information provided only by Vale; (v) the fact that the 3rd Amendment would have an indeterminate subject matter, in alleged violation of the provisions of Article 104, item II, of the Civil Code, to the extent that it "establishes the possibility for the ANTT to determine, if it so wishes, that additional investments be made in the future", which, it argues, would also be in violation of Article 7 of Law No. 13448/2017, which establishes that the agreement contains the schedule of the mandatory investments provided for; (vi) the fact that the amount of the grant to be paid by Vale to the Federal Government (National Land Transportation Agency - ANTT) by 2057, as a result of the 3rd Amendment and the extension of its Concession Agreement would have been calculated in a allegedly irregular manner and would be insufficient to adequately protect the public interest; (vii) the fact that the alleged "insufficiency of the investments planned for the railway industry in the State of Minas Gerais" would result from the execution of the 3rd Amendment and the reversal of revenue obtained by the Federal Government (ANTT), due to</p>

	<p>the provision of the service having been granted to Vale and the resulting payment of the concession, in investments in the federal railway network, including through the so-called "cross-investments".</p> <p>In limine, it is required, in the ACP, the immediate suspension of the performance of the contract of the 3rd Amendment or, as an alternative, the provisional suspension of the performance of the contract only in order to avoid the advance payment of the concession by Vale to the Federal Government/ANTT.</p> <p>A final declaration of nullity for the 3rd Amendment is required due to the "abuse of administrative discretion of the Federal Government as to the extension of the concession, which is harmful to the constitutionally recognized empowerment of the states (CR, art. 18, head provision) and contrary to the fundamental precept of the Federative Pact that sustains national integrity and union (CR, art. 1) and, additionally, due to a number of illegalities contained in the covenant", chiefly due to the alleged "distortion of the application of the early extension mechanism, established by Law No. 13448/2017 (...) to circumvent the need to bid for the exploitation of public assets and allocate to the National Treasury cash resources that should be reversed in new investments in transport infrastructure", or, alternatively, in order to determine that the defendants (Vale, Federal Government and ANTT) rectify the irregularities in the 3rd Amendment indicated in the complaint "in order to determine the investment of the grant balance for the benefit of the States of Minas Gerais and Espírito Santo, as a condition of validity of the legal business of anticipating the extension of the concession of the EFVM to Vale". On March 24, 2021, the Federal Government filed for a subpoena to be served to the Attorney General's Office determining its presentation of a previous defense. On March 24, 2021, an order was issued ordering the Defendants to present a statement on the injunction within 72 hours and determining that they would be served with process for the presentation of answers within 15 working days. On March 29, 2021, subpoena and summons were issued. On April 2, 2021, Vale filed a motion raising existing preliminary issues that require the termination of the proceedings without resolution of the merits and requiring the rejection of the preliminary injunction. On April 4, 2021, ANTT presented the same statement. On 04.16.2021, Vale's answer was filed. On April 19, 2021, the injunction against the lack of capacity for the pleading stage of the public prosecutor's office of the Legislative Assembly of Minas Gerais was accepted, and the case without resolution on the merits was extinguished.</p>
Chances of adverse judgment	Remote
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for the Company	In the event of adverse judgment, the 3rd Amendment to the Concession Agreement of the Vitória-Minas Railway (EFVM), held by Vale S.A., may be partially or totally annulled, thus impairing the early extension of the Concession Agreement and/or the feasibility of advance payment of concession by Vale, pursuant to the Amendment.
Notes	In the first instance the case was extinguished without resolution on the merits. Awaiting the expiry of the time limit for the opposing party to file an appeal.

2) Case No. 1023835-46.2021.4.01.3800	
Court	15th Federal Civil Court of the Judicial District of Minas Gerais
Instance	First
Date of filing	05.11.2021
Parties	Federal Public Ministry, Public Ministry of the State of Minas Gerais, Public Defender of the Union, Public Defender of the State of Minas Gerais and Public Defender of the State of Espírito Santo (Claimant); Vale S.A., Samarco, BHP Billiton and Renova Foundation (Defendants)
Amounts, goods or rights involved	R \$ 84,453,846.90 (eighty-four million, four hundred and fifty-three thousand, eight hundred and forty-six reais and ninety cents).
Main facts	On May 11, 2021, an initial petition was filed based on alleged illegitimacy of advertisements for repair activities carried out from the perspective of Renova's polluting and maintaining companies, since, being an interested party, they would be guided by the guidelines of the private initiative and praising one's own image through the publication of data in favor of polluters, and not from the perspective of the fundamental right to the environment and the individual and collective rights of those directly affected by the tragedy and that the expenditure on the production, placement and promotion of the advertising campaign it would offend the principle of the centrality of the victim's suffering, consumer legislation, the right to information, the principles of prevention and

	<p>precaution, as well as the guidelines instituted in the TTAC and other agreements signed with the various public bodies.</p> <p>In ACP, the immediate suspension of advertising is required, the refraining from making new expenses related to advertisements and advertising campaigns, the disclosure of an official note maintaining that the campaigns already aired would be based on partial technical-scientific conclusions and the realization of a new campaign informing the persistent doubt about the current conditions of water quality and toxicity of the tailings in order to prevent contamination and exposure of the population affected to risks.</p> <p>In addition, they require the condemnation of the payment of indemnity for collective pain and suffering of an amount not less than R \$ 56,302,564.60, equivalent to twice that destined in advertising campaigns carried out by the Renova Foundation and that the reimbursement of the expenses incurred in advertisements be carried out, which total R \$ 28,151,282.30.</p> <p>On May 12, 2021, an order was issued summoning all parties to, if they wish, manifest themselves before the preliminary injunction is considered.</p> <p>On May 20, 2021, the Federal Government requested the CIF's summons to manifest itself in the case file, given that the demand in question is directly affecting CIF's powers.</p> <p>On May 21, the Renova Foundation filed an anti-injunction petition requiring prior analysis regarding the competence for processing the present class action, so that the competence of the 12th Federal Court of Belo Horizonte is recognized, and the rejection of the request for tutelage of urgency.</p>
Chances of adverse judgment	Possible
Impact analysis in case of adverse judgment/Reasons of the relevance of the lawsuit for the Company	Allegation that the Renova Foundation, whose sponsors are the companies Vale, Samarco and BHP, would have performed illegitimate acts and would be acting with a deviation of purpose in the scope of the repair and compensation of the damages caused as a result of the breach of the Fundão dam, specifically in what expenses related to advertisements and advertising campaigns. In the event of a condemnatory judicial decision by the Renova Foundation, as a consequence, the payment of indemnity for collective pain and suffering of an amount not less than R \$ 56,302,564.60 may be arbitrated, which demonstrates the relevance of the lawsuit for the Company, also under the institutional view.
Notes	Not applicable.

(II) RELEVANT LAWSUITS FOR DEALING WITH MINING RIGHTS

The tables below present an individual description of the mining cases deemed relevant for the businesses of the Company and/or of its subsidiaries, installed after December 31, 2020:

1) Case No. 1014306-62.2019.4.01.3900	
Court	9th Federal Environment and Land Court of the Judicial District of Pará
Instance	Trial Court
Date of filing	11.28.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Mineral Rights: 859242/1996, 859247/1996, 859251/1996, 859254/1996, 859255/1996, 850718/1987, 859171/1996, 859172/1996, 859173/1996, 859174/1996, 859176/1996, 859177/1996, 859178/1996, 859179/1996, 859180/1996, 859181/1996, 859182/1996, 859183/1996, 859184/1996, 859185/1996,

	<p>859186/1996, 859187/1996, 859188/1996, 859189/1996, 857950/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857974/1996, 857975/1996, 857977/1996, 857978/1996, 857979/1996, 857980/1996, 857981/1996, 857984/1996, 857985/1996, 857987/1996, 857988/1996, 857989/1996, 857991/1996, 857992/1996, 857993/1996, 857994/1996, 857995/1996, 857996/1996, 857997/1996, 857998/1996, 857999/1996, 859001/1996, 859002/1996, 859003/1996, 859004/1996, 859005/1996, 859006/1996, 859256/1996, 857939/1996, 857940/1996, 857941/1996, 857942/1996, 857943/1996, 857944/1996, 857945/1996, 857946/1996, 857947/1996, 857948/1996, 857949/1996, 857950/1996, 857951/1996, 857952/1996, 857953/1996, 857954/1996, 857955/1996, 857956/1996, 857957/1996, 857958/1996, 857959/1996, 857960/1996, 857961/1996, 857962/1996, 857963/1996, 857964/1996, 857965/1996, 857966/1996, 857967/1996, 857968/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857973/1996, 857975/1996, 857976/1996, 857978/1996, 857979/1996, 857981/1996, 857982/1996, 857983/1996, 857984/1996, 857985/1996, 857986/1996, 857987/1996, 857988/1996, 857990/1996, 857991/1996, 857994/1996, 857995/1996, 859011/1996, 650390/1997, 650391/1997, 650392/1997, 650393/1997, 650408/1997, 813369/1974, 850326/1989, 850328/1989, 850329/1989, 851631/1982, 650374/1997, 650375/1997, 650376/1997, 650377/1997, 650379/1997, 650381/1997, 650382/1997, 650383/1997, 650386/1997, 650387/1997, 650388/1997, 650389/1997, 813684/1969, 814621/1973, 814622/1973, 850335/1981, 850337/1981, 850446/1988, 850650/2006, 850722/1981, 850823/1981, 850932/1980, 851577/1982, 851628/1983</p>
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, requesting the cancellation of all mining processes on indigenous lands in the area of the Judiciary Section of Pará. Vale is not a party in the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits gold mining, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the area of circumscription of the Judiciary Section of Pará or, alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judiciary Section of Pará, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF/88.</p> <p>On December 17, 2019, Vale submitted an application for admission to the event as a passive litisconsorte.</p> <p>On February 16, 2020, a challenge was filed by the ANM, arguing for the rejection of the request for interim relief; recognition of the necessary passive lien consortium; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On August 31, 2020, a decision dismissed the request for urgent relief made by the MPF, as well as the request for joint consortium / assistance made by Vale.</p> <p>On October 5, 2020 Vale and the MPF filed an interlocutory appeal in view of the decision, which until the date of filing of this Reference Form was still pending judgment.</p> <p>On October 15, 2020, a petition was filed by the ANM demanding the early trial of the case.</p>

Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	-

2) Case No. 1006941-48.2019.4.01.3902	
Court	2 nd Federal Civil and Criminal Court of the Judiciary Subsection of the City of Santarém-PA
Instance	Trial Court
Date of filing	11.26.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Mineral Rights:850903/2008, 750750/1995, 750751/1995, 750755/1995, 750757/1995, 750758/1995, 750759/1995, 750760/1995, 750762/1995, 750763/1995, 750765/1995, 750766/1995, 750767/1995, 750768/1995, 750769/1995, 750770/1995, 750771/1995, 750772/1995, 750773/1995, 750774/1995, 750775/1995, 750776/1995, 750777/1995, 750778/1995, 750779/1995, 750780/1995, 750781/1995, 750782/1995, 750783/1995, 750784/1995, 750801/1995, 750802/1995, 750803/1995, 750804/1995, 750812/1995, 750833/1995, 750834/1995, 750835/1995, 750836/1995, 750837/1995, 750838/1995, 750839/1995, 750840/1995, 750841/1995, 750842/1995, 750865/1995, 750866/1995, 750867/1995, 750868/1995, 750897/1995, 750898/1995, 750899/1995, 750900/1995, 750901/1995, 750907/1995, 750929/1995, 750930/1995, 750931/1995, 750933/1995, 750934/1995, 750935/1995, 750936/1995, 750940/1995, 750962/1995, 750963/1995, 750964/1995, 750965/1995, 750966/1995, 750968/1995, 750969/1995, 850638/2011, 850639/2011, 850640/2011, 850641/2011, 850642/2011, 850643/2011, 850644/2011, 850645/2011, 850646/2011, 850647/2011, 850648/2011, 850649/2011, 850650/2011, 850651/2011, 850652/2011, 850653/2011, 850654/2011, 850655/2011, 850656/2011, 850657/2011, 850658/2011, 850659/2011, 850660/2011, 850661/2011, 850662/2011, 850663/2011, 850664/2011, 850665/2011, 850666/2011, 850667/2011, 850668/2011, 850669/2011, 850670/2011, 850671/2011, 850672/2011, 850673/2011, 850674/2011, 850011/1982, 850012/1982, 850084/1982, 850089/1982, 850121/1982, 850641/2011, 850651/2011
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request for the cancellation of all mining processes on indigenous lands in the area of the Judiciary Subsection of Santarém. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the constituency area of the Judicial Subsection of Santarém or. alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial</p>

	<p>Subsection of Santarém / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF/88.</p> <p>On January 21, 2020, a challenge was filed by the ANM, calling for the rejection of the request for provisional relief; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On January 22, 2020, Vale and Mineração Guanhães submitted an application for admission to the event as passive litisconsorts.</p> <p>On August 11, 2020, the decision dismissed the request for admission to the feat of Vale e Mineração Guanhães, as well as partially deferred the request for emergency relief made by the MPF to: a) issue an order for the defendant (ANM), within 30 (consecutive) days, appreciate and cancel the plan, including those that will be filed in the future, in the form of art. 17, of the Mining Code, all mining requirements incident, totally, in homologated or delimited and identified indigenous lands, located in the jurisdiction of the Judicial Subsection of Santarém / PA; b) Compose the order for the defendant (ANM), within the same period, to verify and appreciate, including those filed in the future, the requirements that apply, even if partially, to homologated or delimited and identified indigenous lands, located in the circumscription of this Judicial Subsection of Santarém / PA, already delimiting the area incident on said territories, granting the applicant a period of 60 days (consecutive), so that he can rectify the area (art. 18, of Decree-Law no. 227/67), after which the Autarchy must, within 30 (consecutive) days, decide and reject the requests in the parcels overlapping the aforementioned indigenous territories.</p> <p>On September 1, 2020, Vale, Mineração Guanhães and ANM filed an interlocutory appeal in view of the decision, which until the date of filing of this Reference Form was still pending judgment.</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	

3) Case No. 1006591-54.2019.4.01.3904	
Court	Federal Court of the Judiciary Subsection of the City of Castanhal-PA
Instance	Trial Court
Date of filing	11.29.2019
Parties	Federal Prosecutor's Office (Plaintff) vs. National Mining Agency, Mineração Silvana, GRB Grafite do Brasil Mineração, Riverbank Resources Mineração and Greiphil Minas (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	<p>Mineral Rights:</p> <p>859242/1996, 859247/1996, 859251/1996, 859254/1996, 859255/1996, 850718/1987, 859171/1996, 859172/1996, 859173/1996, 859174/1996, 859176/1996, 859177/1996, 859178/1996, 859179/1996, 859180/1996, 859181/1996, 859182/1996, 859183/1996, 859184/1996, 859185/1996, 859186/1996, 859187/1996, 859188/1996, 859189/1996, 857950/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857974/1996,</p>

	<p>857975/1996, 857977/1996, 857978/1996, 857979/1996, 857980/1996, 857981/1996, 857984/1996, 857985/1996, 857987/1996, 857988/1996, 857989/1996, 857991/1996, 857992/1996, 857993/1996, 857994/1996, 857995/1996, 857996/1996, 857997/1996, 857998/1996, 857999/1996, 859001/1996, 859002/1996, 859003/1996, 859004/1996, 859005/1996, 859006/1996, 859256/1996, 857939/1996, 857940/1996, 857941/1996, 857942/1996, 857943/1996, 857944/1996, 857945/1996, 857946/1996, 857947/1996, 857948/1996, 857949/1996, 857950/1996, 857951/1996, 857952/1996, 857953/1996, 857954/1996, 857955/1996, 857956/1996, 857957/1996, 857958/1996, 857959/1996, 857960/1996, 857961/1996, 857962/1996, 857963/1996, 857964/1996, 857965/1996, 857966/1996, 857967/1996, 857968/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857973/1996, 857975/1996, 857976/1996, 857978/1996, 857979/1996, 857981/1996, 857982/1996, 857983/1996, 857984/1996, 857985/1996, 857986/1996, 857987/1996, 857988/1996, 857990/1996, 857991/1996, 857994/1996, 857995/1996, 859011/1996, 650390/1997, 650391/1997, 650392/1997, 650393/1997, 650408/1997, 813369/1974, 850326/1989, 850328/1989, 850329/1989, 851631/1982, 650374/1997, 650375/1997, 650376/1997, 650377/1997, 650379/1997, 650381/1997, 650382/1997, 650383/1997, 650386/1997, 650387/1997, 650388/1997, 650389/1997, 813684/1969, 814621/1973, 814622/1973, 850335/1981, 850337/1981, 850446/1988, 850650/2006, 850722/1981, 850823/1981, 850932/1980, 851577/1982, 851628/1983,</p>
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request for the cancellation of all mining processes on indigenous lands in the circumscription area of the Judicial Subsection of Castanhal. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the circumscription area of the Judicial Subsection of Castanhal / PA or, alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Sub-section of Castanhal / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF/88.</p> <p>On December 17, 2019, Vale submitted a request for admission to the event as a passive litisconsorte.</p> <p>On December 19, 2019, the order summoned the MPF to include the holders of the listed processes in the passive pole, as well as summoned Vale to clarify and prove its interest in the lawsuit, since there is no information about its ownership processes for mineral exploitation. in the Alto Rio Guamá Indigenous Land.</p> <p>On January 22, 2020, a challenge was filed by the ANM, demanding the rejection of the request for provisional relief; recognition of the necessary passive lien consortium; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On April 5, 2020, the decision dismissed the request for urgent relief made by the MPF, as well as the request for joint consortium / assistance made by Vale.</p> <p>In May 25, 2020 Vale and MPF filed an interlocutory appeal against the decision.</p>

	<p>On October 21, 2020, a challenge was presented by Mineração Silvana requesting the acceptance of the preliminary inadequacy of the elected route and requesting the dismissal of the action.</p> <p>On December 12, 2020, a challenge was presented by Greiphil Minas, requesting the acceptance of the preliminary inadequacy of the elected route and requesting the dismissal of the action.</p> <p>On April 29, 2021 a challenge was filed by GRB Grafite requesting the acceptance of a preliminary passive illegitimacy with its immediate exclusion from the passive pole and on the merits the total dismissal of the action.</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	

4) Case No. 1003698-81.2019.4.01.3907	
Court	Federal Civil Court of the Judiciary Subsection of the City of Tucuruí/PA
Instance	Trial Court
Date of filing	11.28.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Indirect right involved, that is, cancellation of any and all mining rights interfering with Indigenous Lands due to the creation of judicial precedent and positioning by ANM.
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request to cancel all mining processes on indigenous lands in the area of the Tucuruí Judicial Subsection. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the circumscription area of the Tucuruí Judicial Subsection or. alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Subsection of Tucuruí / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF / 88.</p> <p>On January 22, 2020 Vale applied for admission to the event as a simple assistant.</p> <p>On February 16, 2020, a challenge was filed by the ANM, calling for the rejection of the request for interim relief; recognition of the necessary passive lien consortium; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p>

	<p>On May 13, 21 2020, the decision dismissed the request for emergency relief made by the MPF, as well as the request for assistance made by Vale.</p> <p>On June 9, 2020, Vale filed an interlocutory appeal in view of the decision that rejected the request to enter the suit.</p> <p>On June 27, 2020, a petition was filed by the Bebô Xikrin do Bacajá Association - ABEX requesting his entry in the event as an active litisconsorte.</p> <p>On July 31, 2020, the decision granted entry to the feat of Associação Bebô Xikrin do Bacajá - ABEX.</p> <p>On December 1, 2020, the parties were summoned to specify evidence, being informed by all that there is no other evidence to be produced.</p> <p>On February 10, 2021 a petition by the MPF requesting the joint consideration of this ACP 1003698-81.2019.4.01.3907 and ACP 0000308-57.2018.4.01.3907; the partial extinction of the fact, restricting its effects to the limits of the jurisdiction of the Tucuruí Judicial Subsection, with recognition of the lis pendens and the absence of procedural interest as to the national effects of the request.</p> <p>On February 23, 2021 order determining the remittance of the records to the Judicial Subsection of Tucuruí / PA, in view of the decline in jurisdiction handed down by the court in a decision handed down in the records 000308-57.2018.4.01.3400</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of a case law that determines the cancellation of all mining securities of the company interfering with indigenous lands.
Notes	-

5) Case No. 1003368-87.2019.4.01.3906	
Court	Federal Civil Court of the Judiciary Subsection of the City of Paragominas-PA
Instance	Trial Court
Date of filing	11.26.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Indirect right involved, that is, cancellation of any and all mining rights interfering with Indigenous Lands due to the creation of judicial precedent and positioning by ANM.
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request for the cancellation of all mining processes on indigenous lands in the area of the Paragominas Judicial Subsection. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mines mining, among others) incidents on indigenous</p>

	<p>lands (identified and delimited, declared and ratified), in the area of circumscription of the Judicial Subsection of Paragominas or, alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Subsection of Paragominas / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF / 88. On 01.22.2020 Vale submitted a request to join the event as a simple assistant.</p> <p>On February 16, 2020, a challenge was filed by the ANM, calling for - the meeting of the present demand with the previous public civil action No. 0000308-57.2018.4.01.3907; rejection of the request for interim relief; recognition of the necessary passive lien consortium; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On October 6, 2020, a decision dismissing the request for emergency relief made by the MPF, as well as the request for assistance made by Vale.</p> <p>On October 28, 2020, Vale and the MPF filed an interlocutory appeal against the decision.</p> <p>On March 18, 2021, the order summoned the parties to comment on the production of evidence, and the MPF informed that it had no other evidence to produce.</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of a case law that determines the cancellation of all mining securities of the company interfering with indigenous lands.
Notes	

6) Case No. 1002918-56.2019.4.01.3903	
Court	Federal Civil Court of the Judiciary Subsection of the City of Altamira-PA
Instance	Trial Court
Date of filing	11.26.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Mineral Rights: 859242/1996, 859247/1996, 859251/1996, 859254/1996, 859255/1996, 850718/1987, 859171/1996, 859172/1996, 859173/1996, 859174/1996, 859176/1996, 859177/1996, 859178/1996, 859179/1996, 859180/1996, 859181/1996, 859182/1996, 859183/1996, 859184/1996, 859185/1996, 859186/1996, 859187/1996, 859188/1996, 859189/1996,
Main facts	This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, requesting the cancellation of all mining processes on indigenous lands in the area of the Judiciary Subsection of Altamira. Vale is not a party to the process.

	<p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the area of circumscription of the Judicial Subsection of Altamira or. alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Subsection of Altamira / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF/88.</p> <p>On January 22, 2020, a request for admission to the event was made as a passive litisconsorte by Belo Sum Mineração.</p> <p>On January 23, 2020, a challenge was filed by the ANM, calling for the meeting of the present demand with the previous public civil action No. 0000308-57.2018.4.01.3907; rejection of the request for interim relief; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On January 30, 2020, Vale submitted an application for admission to the event as a passive litisconsorte.</p> <p>On April 6, 2020, the decision dismissed the request for emergency relief made by the MPF, as well as the request for assistance made by Vale.</p> <p>On May 22, 2020, Vale and the MPF filed an interlocutory appeal against the decision.</p> <p>On June 27, 2020, a request for admission to the event was made as an active litisconsorte by Associação Yudjá Miratu of Volta Grande do Xingu and others.</p> <p>On May 4, 2021, the decision summoned the parties to specify the evidence they wish to produce.</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	-

7) Case No. 1001549-21.2019.4.01.3905	
Court	Federal Civil Court of the Judiciary Subsection of the City of Redenção-PA
Instance	Trial Court
Date of filing	11.26.2019
Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	Mineral Rights: 650390/1997, 650391/1997, 650392/1997, 650393/1997, 650408/1997, 813369/1974, 850326/1989, 850328/1989, 850329/1989, 851631/1982, 650374/1997, 650375/1997, 650376/1997, 650377/1997, 650379/1997,

	650381/1997, 650382/1997, 650383/1997, 650386/1997, 650387/1997, 650388/1997, 650389/1997, 813684/1969, 814621/1973, 814622/1973, 850335/1981, 850337/1981, 850446/1988, 850650/2006, 850722/1981, 850823/1981, 850932/1980, 851577/1982, 851628/1983
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request for the cancellation of all mining processes on indigenous lands in the area of circumscription of the Judicial Subsection of Redemption. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the area of circumscription of the Judicial Subsection of Redemption or. alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Subsection of Redemption / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF / 88.</p> <p>On December 11, 2019, Vale submitted its application for admission to the suit as a passive litisconsorte.</p> <p>On February 16, 2020: A challenge was filed by ANM, demanding the meeting of the present demand with the previous public civil action No. 0000308-57.2018.4.01.3907; rejection of the request for interim relief; recognition of the necessary passive lien consortium; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On June 19, 2020, applications were made for admission to the event as active litisconsorts by the Bayprã Indigenous Association for the defense of the Xakrin people and the Pore Kayapo Indigenous Association.</p> <p>On July 21, 2020, the decision dismissed the request for emergency relief made by the MPF.</p> <p>On July 27, 2020, the MPF filed an interlocutory appeal against the decision.</p> <p>On May 19, 2021, the decision dismissed the request to join the feat of Vale S.A and the indigenous associations.</p>
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	-

8) Case No. 1001084-03.2019.4.01.3908	
Court	Federal Civil Court of the Judiciary Subsection of the City of Itaituba-PA
Instance	Trial Court
Date of filing	11.26.2019

Parties	Federal Prosecutor's Office (Plaintiff) vs. National Mining Agency (defendant). Vale is not yet a party to the process, and has submitted an application for admission, which is under analysis.
Amounts, goods or rights involved	<p>Mineral Rights:</p> <p>857950/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857974/1996, 857975/1996, 857977/1996, 857978/1996, 857979/1996, 857980/1996, 857981/1996, 857984/1996, 857985/1996, 857987/1996, 857988/1996, 857989/1996, 857991/1996, 857992/1996, 857993/1996, 857994/1996, 857995/1996, 857996/1996, 857997/1996, 857998/1996, 857999/1996, 859001/1996, 859002/1996, 859003/1996, 859004/1996, 859005/1996, 859006/1996, 859256/1996, 857939/1996, 857940/1996, 857941/1996, 857942/1996, 857943/1996, 857944/1996, 857945/1996, 857946/1996, 857947/1996, 857948/1996, 857949/1996, 857950/1996, 857951/1996, 857952/1996, 857953/1996, 857954/1996, 857955/1996, 857956/1996, 857957/1996, 857958/1996, 857959/1996, 857960/1996, 857961/1996, 857962/1996, 857963/1996, 857964/1996, 857965/1996, 857966/1996, 857967/1996, 857968/1996, 857969/1996, 857970/1996, 857971/1996, 857972/1996, 857973/1996, 857975/1996, 857976/1996, 857978/1996, 857979/1996, 857981/1996, 857982/1996, 857983/1996, 857984/1996, 857985/1996, 857986/1996, 857987/1996, 857988/1996, 857990/1996, 857991/1996, 857994/1996, 857995/1996, 859011/1996</p>
Main facts	<p>This is a public civil action filed by the Federal Public Prosecutor's Office against the National Mining Agency - ANM, with a request for the cancellation of all mining processes on indigenous lands in the area of circumscription of the Judicial Subsection of Itaituba. Vale is not a party to the process.</p> <p>On the merits, a preliminary injunction based on the declaration of unconstitutionality and unconventionality is requested, as well as the cancellation of all mining processes (overruled requirements, research requirements, mining and mining permission, mining authorizations and concessions and permits mining mines, among others) incidents on indigenous lands (identified and delimited, declared and ratified), in the circumscription area of the Judicial Subsection of Itaituba or. alternatively, the imposition of an obligation to make ANM so that it appreciates and rejects all mining processes currently occurring on indigenous lands under the jurisdiction of the Judicial Subsection of Itaituba / PA, while the constitutional rules provided for in art. 176, § 1 and 231, § 3 of CF / 88.</p> <p>On January 22, 2020, Vale submitted an application for admission to the event as a passive litisconsorte.</p> <p>On February 6, 2020, a challenge was filed by the ANM, calling for the meeting of the present demand with the previous public civil action No. 0000308-57.2018.4.01.3907; rejection of the request for interim relief; illegitimacy of ANM regarding the plaintiff's claim to cancel mining requirements on indigenous lands; and, total rejection of the request.</p> <p>On June 4, 2020, the decision dismissed the request for emergency relief made by the MPF, as well as the request for assistance made by Vale.</p> <p>On June 19, 2020, Vale filed an interlocutory appeal in view of the decision that rejected the request to enter the suit.</p> <p>On July 22, 2020 embargoes of declaration by the MPF requesting the decision to be modified, so that there is no restriction on the object of the dispute, and the process must continue in relation to all Indigenous Lands, whether they are identified and delimited, declared and ratified.</p>

	On May 6, 2021, ANM presented counterarguments to the opposite declaration embargoes.
Chances of adverse judgment	Possible
Impact analysis in case of loss/Reasons of the relevance of the lawsuit for the Company	Risk of cancellation of all abovementioned mining securities of the company.
Notes	-

(III) Commitment Agreements and Consent Decrees

(A) Failure of the Bam I of the Córrego do Feijão Mine

1) AECOM – MPMG Consent Decree	
Source: Civil Inquiry No. MPMG 0090.16.000311-8 and ratified in the ACP 5026408-67.2019.8.13.0024	
(a) Signatories	Public Prosecution Office of Minas Gerais ("MPMG") and Vale S/A, with intervention of AECOM do Brasil LTDA.
(b) Date of the execution	02/15/2019
(c) Description of the facts that led to the execution of the term	On January 26, 2019, the day after the failure of the BI, BIV and BIVA dams, the MPMG, acting on an emergency basis, called on the intervener so that its technicians immediately went to the site of the Rupture to assess the effectiveness of the measures adopted by the committed party to ensure the safety and stability of the remaining structures of the Paraopeba II Complex - Córrego do Feijão Mine, in the municipality of Brumadinho-MG, as well as to verify the adequacy of the measures adopted to contain tailings and mitigation of impacts and damage to the environment, due to the necessity of verifying compliance with the judicial decision rendered by the court of the judicial district of Brumadinho.
(d) Assumed obligations	(a) check the safety and stability of the remaining structures of the Paraopeba 11 Complex - Feijão Mine, in Brumadinho; (b) assess the effectiveness of the measures that have been and will be adopted by Vale for the containment of waste and for the socio-environmental recovery of all impacted areas. Scope of services: (i) certifying accountant in geotechnical areas; (ii) dam safety; (iii) archeology, (iv) speleology, (v) handling of tailings, (vi) characterization, (vii) environmental remediation and (viii) monitoring of the air, fauna, flora and water resources impacted by the failure of the dams.
(e) Deadline, if any	a. Field visits of the geotechnical, hydraulic, hydrology, environmental remediation team of AECOM, with weekly frequency in the first 6 months, and monthly from the seventh month, with the appropriate duration to meet the defined scope; b. Preparation of the detailed certifying accountant reports, which will be submitted to the committed party and the committing party, within 10 working days of the presentation meeting, which will be held after each monthly field visit.
(f) Information on the actions being adopted to comply with the obligations assumed in the term	The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree. This Consent Decree (TAC) was ratified in the Global Agreement executed on February 4th, 2021.
(g) Consequences in case of noncompliance	Failure to comply with the obligations assumed shall be notified by the committing party to the committed party to be remedied or duly justified within 30 working days. If noncompliance persists and is not justified, the obligatory daily fine of up to R\$ 30,000.00 may be applied, limited to a 30-day penalty period, which will be reverted to FUNEMP.

2) FEDERAL GOVERNMENT - WATER Consent Decree

Source: Case No. 1001659-44.2019.4.01.3800.	
(a) Signatories	Federal Government and Vale.
(b) Date of the execution	03/13/2019:
(c) Description of the facts that led to the execution of the term	On February 7, 2019, the Federal Government proposed before the 19th Federal Court of the Judicial District of Minas Gerais, a preliminary provisional remedy (no. 1001659-44.2019.4.01.3800) in order to determine the water conditions of the Paraopeba River.
(d) Assumed obligations	The contracting and costing by the independent laboratory that meets the requirements specified in NBR ISO/IEC 17025:2005, to be made available to the committing party, with analytical capacity for analysis of samples in collective and individual alternative solutions of water supply, whose abstractions in underground water sources are located at a distance of up to 100 meters from the banks of the Paraopeba river, to be collected by agents of the Unified Health System (SUS), with a specific objective of providing a temporary supply of demand not supported by public health laboratories.
(e) Deadline, if any	<p>The sample collection frequency, defined above, will be weekly in the first month of validity of the Term, and in the others, if there are changes, it will be, at most weekly, at the highest frequency.</p> <p>Funding of laboratory analyses for a period of 1 year, counting from the ratification of the Commitment Agreement.</p> <p>On March 13, 2020, Vale and the Federal Government informed the court that they agreed to extend, for a period of thirty (30) days, the funding of laboratory analyses.</p> <p>On April 13, 2020, Vale and the Federal Government informed the court that they agreed to extend, for a period of one (1) year, the funding of laboratory analyses.</p> <p>On May 22, 2020, the judge of the 19th Federal Civil Court of the Judicial District of the State of Minas Gerais approved the motion filed by the parties to extend the term of the agreement for other 12 months from the final term of the agreement</p>
(f) Information on the actions being adopted to comply with the obligations assumed in the term	The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree.
(g) Consequences in case of noncompliance	Failure to comply with the obligations assumed herein shall be notified by the committing party to the committed party, to be remedied or duly justified within 5 working days. If noncompliance persists and is not justified, the arbitrary daily fine of up to R\$ 30,000.00 may be applied, limited to a 30-day penalty period.

3) PARÁ DE MINAS Consent Decree	
Source: Cases No. 5010709-36.2019.8.13.0024, 5026408-67.2019.8.13.0024 e 5044954-73.2019.8.13.0024	
(a) Signatories	Public Prosecution Office of the State of Minas Gerais, Municipality of Pará de Minas, Águas de Pará de Minas S/A and Vale.
(b) Date of the execution	03/15/2019
(c) Description of the facts that led to the execution of the term	The water collected from the Paraopeba River, in the city of Pará de Minas, became unfit for use after the rupture of the B1 Dam, on January 25, 2019, in Brumadinho.
(d) Assumed obligations	The main purpose of this instrument consists in the preparation, the costing and the execution of the project and works for the construction of new systems of capture and adduction of untreated water, apt and sufficient to guarantee at least a flow of, at least, 284 liters per second, to be made available at the existing water treatment plant, located in Pará de Minas, in substitution of the abstraction that was made at Rio Paraopeba.
(e) Deadline, if any	Vale has undertaken, within a period up to April 14, 2019, to submit the geographic coordinates for edition by the municipality of the competent Decree of institution of easement, concerning the area in which the works will be performed, which has already been fulfilled;

	<p>Vale undertakes to execute and complete the project by July 20, 2020 (obligation fulfilled);</p> <p>Vale has undertaken, up to May 17, 2019, to perform the abstraction of untreated water at the confluence of Moreira and Cova Danta streams, until the work is completed, an obligation that has already been fulfilled;</p> <p>Vale, within the period until June 16, 2019, has undertaken to drill enough artesian wells to guarantee a new water availability of at least 25 liters per second, an obligation that has already been fulfilled;</p> <p>Vale undertakes to supply drinking water to the population of Pará de Minas until the submittal of a report proving that the abstraction and supply facilities are operating properly, an obligation that as of the date of this Reference Form is still at the fulfillment phase.</p>
(f) Information on the actions being adopted to comply with the obligations assumed in the term	<p>The Company is adopting the necessary conduct to comply with the obligations set forth in the Consent Decree, having delivered the works on February 3, 2021 and the period of assisted operation finished on April 3, 2021. The negotiation with the MPMG about the fine for the delay in delivery of the works was concluded, in the amount of R\$ 10 million.</p> <p>This Consent Decree (TAC) was ratified in the Global Agreement executed on February 4th, 2021..</p>
(g) Consequences in case of noncompliance	<p>The total or partial noncompliance of the clauses of the Instrument will entail the payment by Vale of a daily fine in the amount of R\$ 100,000.00, limited to R\$127,000,000.00..</p>

4) Preliminary Consent Decree - TAP-E Pataxó	
Source: IC MPF: 1.22.000.000418/2019-12	
(a) Signatories	Federal Prosecution Office, Pataxó Hã Hã Hãe, Indigenous People, Pataxó, Indigenous People, Naô Xohã Community, National Foundation of the Indian – FUNAI and Vale.
(b) Date of the execution	04/05/2019
(c) Description of the facts that led to the execution of the term	Definition and Regulation of emergency measures to interrupt and/or mitigate the socioeconomic and environmental damages suffered by the indigenous community.
(d) Assumed obligations	<p>Adoption or continuity of actions to control the appearance of animal carcasses, the proliferation of synanthropic species and vectors of communicable diseases, caused by the rupture of the B1 Dam.</p> <p>Costing of contracting an entity that will provide independent technical auditing to the members of the Indigenous Community, through the carrying out of impact studies, preparation and definition of mitigation, reparatory and/or compensatory programs and the implementation of these programs.</p> <p>Emergency monthly payments to all indigenous persons already resident in the Indigenous Community on the date of rupture for a period of 12 months.</p> <p>Contracting of an independent entity to diagnose damages and impacts suffered by the Indigenous Community as a result of the rupture (socioeconomic consultancy).</p> <p>On January 7, 2020, the parties signed the amendment to the Preliminary Consent Decree, through which they agreed on the extension of the emergency payment for another ten (10) months, starting from January 2020.</p> <p>Through negotiations in hearings with the MPF, the emergency payment was postponed to May 2021.</p>
(e) Deadline, if any	30 days for costing of entity that will provide technical advice It was registered in the minutes of the meeting of January 31, 2020 that "the deadline for hiring technical advisory shall be counted from the receipt of the work plan, as it shall submit the proposal and plan to its internal procedures of comparison of values with other companies/institutions in the sector, scope of work, compliance, among others". The work plan has not yet been received.

	<p>12 months of emergency payments.</p> <p>ten (10) months, as of January 2020, to make the emergency payment, in favor of members of the indigenous community. Through negotiations in hearings with the MPF, the emergency payment was postponed to May 2021.</p>
(f) Information on the actions being adopted to comply with the obligations assumed in the term	The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree.
(g) Consequences in case of noncompliance	Fine of R\$ 360,000.00 for each provision breached, plus a daily fine of R\$ 20,000.00.

5) Commitment Agreement on Dam Safety

Origins:

Cauê Mine TC: ACPs 5000406-54.2019.8.13.0317 and 5000402-17.2019.8.13.0317;
Minas do Meio and Conceição TC: ACPs No. 5000548-58.2019.8.13.0317 and 5000549-43.2019.8.13.0317
Minas Brucutu and Capitão do Mato TC: ACPs No. 5013909-51.2019.8.13.0024, 5000153-77.2019.8.13.0572 and 5000121-74.2019.8.13.0054
Gongo Soco Mine TC: ACPs No. 5013909-51.2019.8.13.0024, 5000121-74.2019.8.13.0054 and 5000045-50.2019.8.13.0054
Fábrica Mine TC ACPs No. 5013909-51.2019.8.13.0024, 0004741-98.2019.8.13.0319 and 5000203-75.2019.8.13.0064
Abóboras, Mar Azul, Anteandua, Alegria, Pico and Timbopeba Mines TC: ACPs No. 5013909-51.2019.8.13.0024, 5000435-60.2019.8.13.0461, 5100838-87.2019.8.13.0024, 5000905-37.2019.8.13.0188, 5001130-57.2019.8.13.0188, 5000616-50.2019.8.13.400, 5000021-03.2019.8.13.0319 and 5000901-97.2019.8.13.0188.
Córrego do Meio, Capanema and Fazendão Mines TC: ACPs No. 5000149-40.2019.8.13.0572, 5000150-25.2019.8.13.0572 and 5000833-77.2019.8.13.0567
Igarapé Bahia Mines TC: ACPs No. 1002242-17.2019.4.01.3901, 1002244-84.2019.4.01.3901, 0000356-94.2019.5.08.0126 and 0000361-07.2019.5.08.0130
Água Limpa and Fábrica Nova Mines TC: ACP 5000092-67.2019.8.13.0557

(a) Signatories	Public Prosecutor's Office of the State of Minas Gerais and Vale, State of Minas Gerais, respective audit company and, as the case may be, the Labor Prosecution Office.
(b) Date of the execution	<p>Cauê Mine TC: 4/16/2019</p> <p>Minas do Meio e Conceição TC: 06/03/2019</p> <p>Minas Brucutu and Capitão do Mato TC: 07/17/2019</p> <p>Gongo Soco Mine TC: 07/23/2019</p> <p>Fábrica Mine TC 09/23/2019</p> <p>Abóboras, Mar Azul, Anteandua, Alegria, Pico and Timbopeba Mines TC: 09/23/2019</p> <p>Córrego do Meio, Capanema and Fazendão Mines TC: 01/23/2020</p> <p>Igarapé Bahia Mines TC: 08/14/2020</p> <p>Água Limpa and Fábrica Nova Mines TC: 10/02/2020</p>
(c) Description of the facts that led to the execution of the term	After the breach of the dam B-I, the MPMG filed several public civil lawsuits as preliminary injunctions for the adoption of a series of safety measures for VALE dams, including the check of the stability of their structures, revision of the PAEBM and PSB, among others. Most of the injunctions were granted, requiring VALE to implement measures in technically unenforceable deadlines, under penalty of a daily fine of R\$ 1,000,000.00. In this scenario, VALE and MPMG initiated negotiations to technically adapt the obligations imposed by the injunctions and solve the respective ACPs. As a result of these negotiations, several similar Commitment Agreements were executed, in which it was agreed upon the hire of an independent technical audit company, which has never been hired by VALE, to assess the issues with regard to the safety of VALE's dams and all of its mines in the State of Minas Gerais, with the exception of Del Rey Mine.
(d) Assumed obligations	Hiring of independent technical audit to verify the safety parameters of the dams, monitoring the implementation of the necessary security measures to ensure the stability of the dams, as well as monitoring of revision of the Dam Safety Plan and PAEBM, by virtue of the decision rendered in the respective public civil actions. In relation to emergency level 3 dams, the audit of the necessary measures for worker safety was also included. In accordance with the Commitment Agreements, Vale, unless otherwise technically justified, must guide its conduct in accordance with the recommendations of these audits.

(e) Deadline, if any	Continuous compliance with monitoring.
(f) Information on the actions being adopted to comply with the obligations assumed in the term	The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree.
(g) Consequences in case of noncompliance	Daily fine of R\$ 100,000.00 in case of non-compliance with any clause of the agreements.]

6) Preliminary Commitment Agreement - Fauna – Brumadinho

Source: Civil Inquiry 0090.019.000014-2

(a) Signatories	Public Prosecution Office of the State of Minas Gerais and Vale
(b) Date of the execution	04/05/2019
(c) Description of the facts that led to the execution of the term	Adoption of emergency/mitigation measures and action plans for the preservation of domestic and wild fauna directly and indirectly affected by the rupture.
(d) Assumed obligations	<p>Vale was obliged to maintain the actions of the emergency plan for the actions of search, rescue and care of animals affected by the rupture of the dam of its mining complex in Brumadinho until definition of the final term by SEMAD. The obligation includes (i) the maintenance of sufficient and proficient professionals to be part of the technical team; (ii) the provision of infrastructure, equipment, machinery, vehicles and supplies necessary for the search, rescue and care of animals; (iii) diagnosis of affected areas; (iv) promotion of the immediate rescue of isolated animals, unless technical unfeasibility.</p> <p>Vale also made a weekly report to the Public Prosecution Office for a period of two months on compliance with the plan.</p> <p>Vale was also obliged to ensure favorable animal welfare conditions, including testing for canine visceral leishmaniasis, and the cases of positive results were treated.</p> <p>Vale was still forced to complete the mud enclosure.</p>
(e) Deadline, if any	<p>Vale's obligations regarding the search, rescue and care of animals are extended until the definition of SEMAD, with IBAMA being heard.</p> <p>The deadline for completing the mud enclosure is 30 days, and Vale has been constantly updating the tailings enclosure as the tailings removal actions progress.</p>
(f) Information on the actions being adopted to comply with the obligations assumed in the term	<p>The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree.</p> <p>According to the Global Agreement executed on February 4, 2021, the General Fauna Consent Decree was extinguished and, as a result, the independent technical audit on this Consent Decree-Brumadinho Fauna was extinguished.</p>
(g) Consequences in case of noncompliance	

7) Dam Break Consent Decree

Source: N/A

(a) Signatories	Public Prosecution Office of the State of Minas Gerais, Vale S.A., Aecom do Brasil Ltda., and State of Minas Gerais
(b) Date of execution	09/23/2019
Description of the facts that led to the execution of the consent decree	After the BI dam breach in Brumadinho, the Public Prosecution Office of the State of Minas Gerais filed several public-interest civil actions against Vale, seeking to inspect and ensure dam safety measures. As a result of these various public-interest civil actions, they entered into a commitment agreement, aiming at the preparation/update of hypothetical breach studies of all mining dams in the State of Minas Gerais, having as its intervener the external audit company Aecom.
(d) Assumed obligations	(i) Preparation/update of the revision methodology of hypothetical breach studies of all mining structures in the State of Minas Gerais and monitoring of such revision by an independent technical audit team; (ii) establishment of a timetable for the preparation and/or update of hypothetical breach scenario studies; (iii) establishment of the conditions for contracting and funding the audit to be carried out by the company Aecom; and (iv) adoption of all measures resulting

	from the update of the flood areas, such as update/review of the Dam Safety Plan, the Emergency Action Plan, with adaptation of escape routes and muster points, implementation of field signage and warning system, strategies for evacuation and rescue of the population, communication, adaptation of logistical structure, rescue and care of animals, cultural assets, among others.
(e) Deadline, if any	In addition to the schedule agreed upon between the parties, adopt, within 120 days, as of the delivery of the final report of the hypothetical breach studies for each mining structure, all measures resulting from the update of the flood areas, such as the update/review of the Dam Safety Plan - PSB and the Emergency Action Plan - PAEBM.
Information on the actions adopted to comply with the obligations assumed in the Consent Decree	Vale's operational team (geotechnics and engineering) is aligned with the independent technical audit company Aecom to fulfill obligations.
(g) Consequences in case of noncompliance	Imposition of a daily fine in the amount of one hundred thousand reais (R\$ 100,000.00).

8) IGAM Monitoring Consent Decree

Source: ACP 5010709-36.2019.8.13.0024 (ACP No. 5026408-67.2019.8.13.0024), 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024

(a) Signatories	Public Prosecution Office of the State of Minas Gerais and VALE S.A., with the intervention of AECOM, the State of Minas Gerais, IGAM, and the Federal Prosecution Office.
(b) Date of execution	11/13/2019:
Description of the facts that led to the execution of the consent decree	Provision of independent technical and environmental auditing services by AECOM, to assess and guarantee the reliability of: (i) the surface water and sediment quality monitoring plan in the Paraopeba river and São Francisco river watersheds; (ii) the groundwater quality monitoring plan; (iii) the drinking water distribution program for the population affected by the breach; (iv) sediment entrainment studies; and (v) the program for transfer of the management of monitoring and data generated to IGAM.
(d) Assumed obligations	Implementation of (i) the surface water and sediment quality monitoring plan in the Paraopeba river and São Francisco river watersheds; (ii) the groundwater quality monitoring plan; (iii) the drinking water distribution program for the population affected by the Breach, currently carried out by Vale; (iv) sediment entrainment studies; and costing of (v) the program for transfer of monitoring and generated data management to the Institute of Water Management of the State of Minas Gerais (IGAM). Funding of the provision of technical audit services.
(e) Deadline, if any	The deadline for transferring monitoring management to IGAM was novated by the Global Agreement concluded on February 4, 2021, to be completed in 33 months. Monitoring obligations: 10 years. This Consent Decree (TC) was ratified in the Global Agreement executed on February 4th, 2021.
Information on the actions adopted to comply with the obligations assumed in the Consent Decree	The Company is adopting the necessary conducts to fulfill the obligations under the Consent Decree.
(g) Consequences in case of noncompliance	Daily fine of R\$ 100 thousand.

9) Instrument of Substitute Agreement of Environmental Penalty - SEMA Brumadinho

Source: ACP 5001905-75.2019.8.13.0090

(a) Signatories	Municipality of Brumadinho, Secretariat of Environment and Sustainable Development of the Municipality of Brumadinho - SEMA and VALE S.A.
(b) Date of execution	07/11/2019:
Description of the facts that led to the execution of the consent decree	Assumption of socio-environmental obligations by VALE vis-à-vis the MUNICIPALITY OF BRUMADINHO, for the total amount of fines imposed by SEMA, that is, R\$ 108,782,890.00, to be applied, within the scope of Brumadinho, at (i) projects, works and related infrastructure initiatives, including those related to health, and (ii) in socio-environmental projects, both directly and indirectly related to the Breach and its consequences.

(d) Assumed obligations	<p>Allocate the necessary resources to carry out the aforementioned projects, works and initiatives.</p> <p>Contract the INCT Proposal and Diagnostic Plan, which has already been accomplished.</p> <p>Perform, by itself or third parties, the socio-environmental measures to be established in the Executive Design, under the terms, deadlines and conditions defined therein.</p>
(e) Deadline, if any	None.
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	<p>The Company is adopting the necessary conducts to fulfill the obligations of the TAC.</p> <p>This Agreement was ratified by the Global Agreement executed on February 4th, 2021.</p>
(g) Consequences in case of non-compliance	Fine of R\$ 20 thousand per act of default.

10) TAC COPASA (TAC Water)	
Source: Relief 5010709-36.2019.8.13.0024, ACPs 5026408-67.2019.8.13.0024 and 5044954-73.2019.8.13.0024 e 5087481-40.2019.8.13.0024	
(a) Signatories	Public Prosecution Office of the State of Minas Gerais and VALE S.A., with the intervention of AECOM, the State of Minas Gerais, COPASA, and the Federal Prosecution Office.
(b) Date of the execution	July 08th, 2019
(c) Description of the facts that led to the execution of the Agreement	Provision of independent technical and environmental audit services by AECOM to check compliance with measures aimed at restoring water abstraction by COPASA for the Metropolitan Region of Belo Horizonte and other municipalities affected by the breach.
(d) Assumed obligations	<p>Funding of the provision of technical audit services.</p> <p>Execute all action plans for reparation of the impacts of the breach in water abstraction of RMBH and other impacted municipalities, and protect the integrity of the water supply system in view of the risk of breach of other structures.</p> <p>Build, at its own expenses, a new water catchment point for the Paraopeba River, indicated by COPASA.</p> <p>Implement the works already agreed by the parties for the installation of cofferdams to protect COPASA's catchment and substation in Rio das Velhas.</p> <p>Funding for the acquisition and transfer to COPASA of the area where the new water catchment for the Paraopeba river will be built.</p> <ul style="list-style-type: none"> ▪ Executed 1st Amendment to the Commitment Agreement on September 25th, 2019, with the following obligations: a) monitoring and implementation of measures aimed at meeting the stages of the schedule; b) fully implement all the electrical installations necessary for the new catchment of COPASA from the connection point to the substation of the new catchment, including the expansion of CEMIG's BRUMADINHO SE; c) prepare projects, submit to CEMIG approval, and build an electrical substation of the new COPASA catchment. ▪ Executed 2nd Amendment to the Commitment Agreement on October 21st, 2019, with the following obligations: a) to carry out interconnection works between the water supply systems of the Paraopeba Basin (SBP) and the das Velhas River Basin (SRV); b) to implement deep wells to serve essential customers located in the above-mentioned Basins, as listed in Annex II of the Amendment (obligation in renegotiation for replacement by various obligations); c) reactivate wells for the municipalities of Lagoa Santa, São José da Lapa and Vespasiano, including necessary

	adjustments in the distribution network, water quality tests for wells and environmental regularization.
(e) Deadline, if any	<p>Complete the construction of the new water catchment point on the Paraopeba River by September 30th, 2020, an obligation that has not been fulfilled so far, with the expectation of completion in August 2021.</p> <p>1st Amendment: All obligations maturing on September 30th, 2020 (obligations underway).</p> <p>2nd Amendment: Make the connection between SBP and SRV until February 2020 (deadline extended and already met – works of June 2020 and commissioning in July 2020); Reactivate the Lagoa Santa wells until January 2020 (obligation completed). Reactivate Vespasiano wells until January 2020 (extended until June 2020 and already completed); Reactivate wells of São José da Lapa until February 2020 (extended until June 2020); Drill wells for key customers between February and October 2020 (in renegotiation for replacement of various obligations, expected to be completed in July 2021).</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	<p>The Company is taking the necessary measures to comply with the TAC obligations despite the impacts of the COVID-19 pandemic and other facts beyond Vale's will on the works.</p> <p>This TAC was ratified by the Global Agreement executed on February 4th, 2021.</p>
(g) Consequences in case of non-compliance	Daily fine of R\$ 100 thousand.

11) TC SEMA Brumadinho

Source: Official Letter 287/2019

(a) Signatories	Municipality of Brumadinho and VALE S/A
(b) Date of the execution	September 25th, 2019
(c) Description of the facts that led to the execution of the agreement	Provide technical environmental advisory for SEMA Brumadinho.
(d) Assumed obligations	<p>1) Pay for the hiring of a specialized company to perform the technical environmental advisory services, to monitor and assess the measures that have been taken for the environmental recovery of the municipality.</p> <p>2) Rental of the following vehicles, in a unique and exclusive service for inspection and monitoring activities within the jurisdiction of the municipality: a double cab truck, 4x4 traction, diesel and two passenger vehicles. The rental period is now over.</p> <p>3) Carry out the maximum and global financial transfer of up to one million, seven hundred and fifteen thousand reais (R\$ 1,715,000.00), which it considers to be sufficient for the execution of the subject matter of the Agreement, being the use of said sums exclusively for such ends.</p>
(e) Deadline, if any	None.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	<p>The Company is adopting the necessary conducts to fulfill the obligations of the TC.</p> <p>This Agreement was ratified by the Global Agreement executed on February 4th, 2021.</p>
(g) Consequences in case of non-compliance	-

12) TC DUP Brumadinho

Source: Official Letter 287/2019

(a) Signatories	Municipality of Brumadinho and VALE S/A
(b) Date of the execution	July 11th, 2019
(c) Description of the facts that led to the execution of the agreement	Vale assumes all the costs of expropriation and any other properties affected by the dam breach, and undertakes to implement the Ferro-Carvão Municipal Park in the area with the costs of managing the UC for 12 years after the recovery of the area.

(d) Assumed obligations	Assumption of full responsibility for the execution of environmental recovery activities that make the creation, implementation and maintenance of the Ferro-Carvão Municipal Park feasible, occupying the territory affected by the mud of mining tailings arising from the dam breach of the Feijão stream.
(e) Deadline, if any	<p>Creation and implementation of the Park within 18 months from the execution of the Agreement, that is, January/2021. Extendable deadline as provided in the CT.</p> <p>Vale informed the City Hall about the need to extend the deadline for the creation and implementation of the Park considering that the area in which the implementation will be made is still under the care of the Fire Department to conduct searches and removal of the tailings.</p> <p>Responsible for maintaining the Park for a period of 12 years.</p>
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	The Company is adopting the necessary conducts to fulfill the obligations of the TAC.
(g) Consequences in case of non-compliance	-

12) Agreement on Procedures for the Compensation and Supply of Emergency Measures to the State of Minas Gerais	
Source: Guardianship 5010709-36.2019.8.13.0024 and Public Civil Action 5026408-67.2019.8.13.0024	
(a) Signatories	State of Minas, Advocacy-General of the State of Minas Gerais and Vale.
(b) Date of the execution	March 7, 2019
(c) Description of the facts that led to the execution of the agreement	Filing of action n. 5010709-36.2019.8.13.0024, in which it was required by the State that Vale pay for the anticipation of emergency indemnities.
(d) Assumed obligations	Hiring and / or supplying of products and / or services necessary and technically adequate for the execution, by the State of Minas Gerais, its agencies and its Indirect Administration of the emergency works related to the disruption. In addition, Vale must reimburse the State of Minas Gerais and its agencies directly and indirectly for all emergency expenses related to the disruption.
(e) Deadline, if any	12 months, extendable, by mutual agreement between the parties, if there is a need for the continuation of remedial measures.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	<p>Vale, up to the present date, has been complying with the agreement, through the seal of the Judiciary and prior assessment of the expenses pointed out by the State.</p> <p>This agreement was re-ratified in the Global Agreement signed on February 4, 2021.</p>
(g) Consequences in case of non-compliance	-

14) Environmental Penalty Substitute Agreement - IBAMA	
Source: 1030458-63.2020.4.01.3800	
(a) Signatories	IBAMA and Vale, with intervention from the Union and ICMBio.
(b) Date of the execution	July 06th, 2020
(c) Description of the facts that led to the execution of the agreement	Application of environmental penalties to VALE, due to the breach of the Brumadinho Dam, in the amount of R\$ 250 million.
(d) Assumed obligations	Make the judicial deposit of R\$ 250 million. In a subsidiary manner, apply up to R\$ 150 million in the National Parks of Serra da Canastra, Caparaó, Serra do Cipó, Serra do Gandarela, Cavernas do Peruacu, Grande Sertão Veredas and Sempre-Vivas, all in the State of Minas Gerais, enabling the strengthening of these conservation units and increasing the ecotourism life, with works (infrastructure, reform or implementation), enclosure and signaling, strengthening and support to management, management plans, when absent or outdated, fire fighting, demarcation and adaptation of trails. Forward to IBAMA, ICMBio and the Ministry of the

	Environment, every six months, (i) monitoring reports, detailing the physical and financial execution until the final implementation of these projects and measures; and (ii) accountability report.
(e) Deadline, if any	Thirty-six (36) months.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	The AGU reported in court that the implementation and execution are already under implementation, for the purposes of public calls and respective requests for proposals. This Agreement was ratified in the Global Agreement executed on February 4th, 2021.
(g) Consequences in case of non-compliance	-

15) Commitment Agreement, Civil Defense

Source: Relief n. 5010709-36.2019.8.13.0024 (ACP 5026408-67.2019.8.13.0024), 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024

(a) Signatories	State of Minas Gerais, Public Prosecution Office of the State of Minas Gerais and Vale, with intervention of the Military Office of the Governor of Minas Gerais.
(b) Date of the execution	November 20th, 2020
(c) Description of the facts that led to the execution of the agreement	Application of resources to assist Civil Defense members who participated and still participate in Brumadinho's actions.
(d) Assumed obligations	Acquisition and transfer, by VALE, of assets to the Civil Defense of Minas Gerais, in order to integrate a set of compensatory actions for the benefit of the State of Minas Gerais.
(e) Deadline, if any	None.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	Vale, to date, has been complying with the agreement. This Agreement was ratified in the Global Agreement executed on February 4th, 2021.
(g) Consequences in case of non-compliance	-

16) Commitment Agreement, Fire Department

Source: Relief n. 5010709-36.2019.8.13.0024 (ACP 5026408-67.2019.8.13.0024), 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024

(a) Signatories	State of Minas Gerais, Public Prosecution Office of the State of Minas Gerais and Vale, with intervention of the Military Fire Department of Minas Gerais.
(b) Date of the execution	November 17th, 2020
(c) Description of the facts that led to the execution of the agreement	Application of resources to assist military firefighters who participated and still participate in Brumadinho's actions.
(d) Assumed obligations	Acquisition and transfer, by VALE, of assets to the Military Fire Department of Minas Gerais, in order to integrate a set of compensatory actions for the benefit of the State of Minas Gerais.
(e) Deadline, if any	None.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	Vale, to date, has been complying with the agreement. This Agreement was ratified in the Global Agreement executed on February 4th, 2021.
(g) Consequences in case of non-compliance	-

17) Agreed Judgment for Full Reparation (Global Agreement)

Source: Relief n. 5010709-36.2019.8.13.0024 (ACP 5026408-67.2019.8.13.0024), 5044954-73.2019.8.13.0024 and 5087481-40.2019.8.13.0024

(a) Signatories	State of Minas Gerais, Public Prosecution Office of the State of Minas Gerais, Federal Prosecution Office, Public Defender's Office of the State of Minas Gerais and Vale.
(b) Date of the execution	February 04th, 2021
(c) Description of the facts that led to the execution of the agreement	Full reparation and compensation of damages, negative impacts and socio-environmental and socioeconomic losses (except for divisible individual damages) due to the breach and its consequences.
(d) Assumed obligations	On the environmental axis: (i) Development and execution, after approval of the committed party, of the Environmental Recovery Plan of the Paraopeba River Basin.

	<p>(ii) Development and implementation of projects to compensate for environmental damage already known, after approval of the committed party (ceiling value of R\$ 1,550,000,000.00).</p> <p>(iii) Provision of resources for the operationalization and execution of Water Security Projects, to be managed by the State Executive Branch (R\$ 2,050,000,000.00).</p> <p>In the socioeconomic axis:</p> <p>(i) Provision of resources for the costing of Projects for the Demands of the Affected Communities, ceiling value of R\$ 3,000,000,000.00).</p> <p>(ii) Provision of resources for the costing of the Income Transfer Program to the affected population and its operationalization - in permanent substitution of the emergency payment (ceiling value of R\$ 4,400,000,000.00).</p> <p>(iii) Development and execution of projects for the affected municipalities of the Paraopeba Basin (ceiling value of R\$ 2,500,000,000.00).</p> <p>(iv) Development and execution of projects for Brumadinho (ceiling value of R\$ 1,500,000,000.00).</p> <p>(v) Provision of resources for the development, by the State of Minas Gerais, of the Mobility Program (ceiling value R\$ 4,950,000,000.00).</p> <p>(vi) Provision of resources for the development, by the State of Minas Gerais, for the Program for Strengthening the Public Service (ceiling value R\$ 3,650,000,000.00).</p> <p>(vii) Development of the Funed and Wolbachia Biofactory projects, in the total amount of R\$ 135,000,000.00.</p> <p>(viii) Costing of Public expenses and temporary hiring of personnel due to the Breach and execution of this Agreement, in the total amount of R\$ 310,000,000.00.</p> <p>(ix) Costing of the support structure provided for in the agreement, including audits and technical advice, in the total amount of R\$ 700,000,000.00.</p> <p>(x) Payment, to the Defense Fund of Diffuse Rights of the Public Prosecution Office, of compensation for damages caused to the Archaeological site "Berros II", in the amount of R\$ 361,250.00.</p>
(e) Deadline, if any	Deadlines still undetermined for obligations to do. The deadlines of the obligations to pay are diverse.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	Required the release of guarantees and amounts deposited in court for compliance with certain obligations to pay under the Agreement. The obligations to do are in fulfillment.
(g) Consequences in case of non-compliance	If the default is not paid or justified, in the case of obligations to pay, Vale will be subject to a fine of 2% on the arrears and interest on arrears of 1% per month. In the case of obligations to do, Vale will be subject to a daily fine of R\$ 100,000.00, with a limit of R\$ 6 million or up to the value of the economic content of the defaulted obligation, whichever is lower.

(B) Terms Relating to the Samarco Dam Breach

Vale is a defendant in several public interest civil actions filed by district attorneys in Minas Gerais and Espírito Santo by other authorities or civil associations that claim compensation for environmental damage as a result of the breach of the Samarco dam. The relieves requested in these proceedings are generally similar to the complaints made in the public interest civil action filed by the Brazilian government (process No. 0069758-61.2015.4.01.3400) and by others and similar to the public interest civil action filed by the MPF (process No. 0023863-07.2016.4.01.3800) .

In 2017, the Superior Court of Justice (STJ) decided that the 12th Federal Court of Belo Horizonte is the court of competent jurisdiction to rule on all these public interest civil actions. All of these public interest civil actions were suspended while negotiating an agreement with the MPF, as discussed in item 4.7 below.

Vale has been appointed as defendant in several private actions, which are filed before different state and federal courts in the States of Minas Gerais and Espírito Santo, filed by individuals, legal entities, municipalities and other entities that seek remediation and compensation for environmental damages, pecuniary damage and emotional distress resulting from the breach of the Fundão dam. These lawsuits include requests for significant amounts in damages, preliminary injunctions, confiscation of property, and freezing of our bank accounts. Vale has reconciled some of these cases and continues to defend itself in several others.

Samarco is involved in several other investigations and actions seeking compensation for damages resulting from the breach of the dam. Immediately after the dam breach, the environmental body of the State of Minas Gerais and the DNPM (currently, ANM) established an investigation of the causes for the dam breach and determined the suspension of operations of Samarco, conditioning the resumption of these investigations of the causes of the dam breach. The investigations concluded that there was the occurrence of concomitant factors – structural failures and seismic shocks – that culminated in the breach. Later, in September 2019, Samarco obtained the Corrective Operational Licensing ("LOC"), contemplating the regularization of existing structures, regularization of emergency works and new solutions for the treatment of tailings. After obtaining the LOC, the implementation of measures necessary for the resumption of operations was initiated, such as operational readiness and installation of the filtration process.

1) Transaction and Conduct Adjustment Agreement within the scope of Public Interest Civil Action 0069758-61.2015.4.01.3400 ("<u>TTAC</u>")	
(a) Signatories	Samarco Mineração S.A., Vale S.A., BHP Billiton Brasil Ltda. ("BHPB"), Federal Union, States of Espírito Santo and Minas Gerais, Brazilian Institute of the Environment and Renewable Natural Resources (" <u>IBAMA</u> "), Chico Mendes Institute, National Water Agency (" <u>ANA</u> "), National Indian Foundation (" <u>FUNAI</u> "), State Forestry Institute (" <u>IEF</u> "), Mining Institute of Water Management (" <u>IGAM</u> "), State Environmental Foundation (" <u>FEAM</u> "), and State Institute of Environment and Water Resources, Institute of Agricultural and Forestry Defense of Espírito Santo and State Agency of Water Resources.
(b) Date of the execution	March 02nd, 2016
(c) Description of the facts that led to the execution of the agreement	<p>The signatory authorities filed a Public Interest Civil Action (Process No. 0069758-61.2015.4.01.3400) against Samarco and its shareholders seeking compensation for alleged socioeconomic and socio-environmental damages resulting from the breach of the Samarco tailings dam, as well as the adoption of a series of measures by Samarco and its shareholders in order to mitigate, repair and compensate for the damages allegedly arising from the said accident. For information on said Public Interest Civil Action No. 0069758-61.2015.4.01.3400, see item 4.3 of this Reference Form and for additional information regarding the accident, see items 4, 7.9 and 10.1 of this Reference Form.</p> <p>The value of the Public Interest Civil Action set by its plaintiffs was R\$ 20,204,968,949.00. Following a series of negotiations between the authorities, Samarco, Vale and BHPB, the parties entered into TTAC, which provides for a long-term reparation and compensation plan in response to the event.</p>
(d) Assumed obligations	According to the TTAC, on June 24th, 2016, Samarco, Vale and BHPB established a Foundation, called "Renova Foundation", which will develop and implement environmental and socio-economic programs to repair and compensate damages caused by the breach of the Samarco dam ("Foundation").

	<p>TTAC includes two broad types of programs: a) Reparation Programs to restore the environment, local communities and social conditions of the affected regions; b) Compensation Programs to offset the damages in the cases in which reparation is not possible, and provision funds for certain special projects, always acting in good faith.</p> <p>In addition, the Foundation's activities are monitored by an independent external auditor.</p> <p>Samarco will fund the Foundation with contributions as follows (calendar year):</p> <ul style="list-style-type: none"> ○ R\$ 2 billion in 2016, less the amount of funds already spent on or allocated to, reparation and compensation activities; ○ R\$ 1.2 billion in 2017; ○ R\$ 1.2 billion in 2018; ○ As of 2019, the value of the annual contributions will be defined in a sufficient amount, compatible with the projection for the execution of the Projects for the corresponding year. <p>Samarco agreed on approved annual contributions necessary to carry out the reparation and compensation projects for each fiscal year, and for the years 2019 to 2021 these contributions will be from R\$ 800 million to R\$ 1.6 billion.</p> <p>As of the signature of the TTAC, the Foundation will allocate an annual amount of R\$ 240 million, for a period of 15 years, for the execution of reparation and compensation projects. These annual amounts are already included in the contributions for the first six years. In addition, a contribution of R\$ 500 million will be made for the basic sanitation of the affected regions.</p> <p>Finally, let it be noted that the TTAC does not provide any acknowledgment of civil, criminal or administrative liability for the breach of the Fundão dam. The TTAC anticipates that, within three years of the date of the agreement, the parties will review their terms to evaluate the effectiveness of ongoing repair and compensation activities.</p>
(e) Deadline, if any	The term of the TTAC is 15 years, renewable for periods of one year, successively, until all the obligations provided for in that term are fulfilled.
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	Data and studies are already being evaluated and developed to comply with the TTAC. In addition, the programs provided by TTAC are being implemented. In addition, the revision of such programs has been occurring.
(g) Consequences in case of non-compliance	Should Samarco fail to fulfill its obligation to provide resources to the Foundation, Vale and BHPB are required to provide resources to the Foundation in proportion to their 50% interest in Samarco.
(h) Other observations	<p><i>Status of the Current Stage of TTAC's Proceedings</i></p> <p>The TTAC was approved by the Federal Regional Court of the 1st Region on May 5th, 2016, and suspended the Public Interest Civil Action (Process No. 0069758-61.2015.4.01.34) highlighted above.</p> <p>Nevertheless, against the decision that approved the TTAC, the Federal Prosecution Office has filed motion for clarification, questioning the jurisdiction of the Federal Regional Court of the 1st Region to approve the TTAC. In addition, the Federal Prosecution Office questioned the terms of the TTAC signed, regarding the adequacy of the measures established therein, as well as the legitimacy of the parties agreeing to the conclusion of the TTAC. It required, at this point, the granting of appeal against a nonunanimous appellate decision to the appeal and the suspension of the effectiveness of the decision.</p>

	<p>The Federal Prosecution Office also filed a complaint before the Superior Court of Justice (STJ) against the decision of the Federal Regional Court of the 1st Region that approved the TTAC.</p> <p>On June 30th, 2016, the Justice-rapporteur of the complaint filed a preliminary injunction to suspend, until the final judgment of the complaint, the decision of the Federal Regional Court of the 1st Region (TRF), dated May 5th, 2016, which approved the TTAC.</p> <p>On August 17th, 2016, the Fifth Panel of the Federal Regional Court of the 1st Region declared null and void the decision that approved the TTCA and denied the interlocutory appeals filed by Vale, BHP and Samarco, and maintained the preliminary decision rendered by the Court of the 12th Federal Court on December 18th, 2015 in Belo Horizonte, which includes the unavailability of the Defendants' mining concessions for the mining of ore, without, however, limiting its production and marketing activities.</p> <p>The TTAC remains valid and the parties will continue to fulfill their obligations already provided for.</p> <p>The Company further clarifies that:</p> <p>i The following letters were issued: (i) OF/CPI/No. 124/2019, by the State Legislature of the State of Espírito Santo, which generally alleges the existence of noncompliance of the TTAC; and (ii) Letter no. 11/2020/CAO-MA, by the Public Prosecution Office of the State of Minas Gerais, through which seven (07) occurrences of fines are recorded, until January 7th, 2020. These letters were also questioned by the CVM, an opportunity in which it was clarified that:</p> <p>ii the facts and alleged non-compliances mentioned in the letters OF/CPI/No. 124/2019 and Letter no. 11/2020/CAO-MA and their respective fines are returned to RENOVA FOUNDATION, and VALE is simply responsible in a subsidiary manner for the fulfillment of SAMARCO's primary liability financial obligations, only in proportion to its participation;</p> <p>iii such facts are being discussed in administrative appeals by the Renova Foundation and judicial incidents, in the manner provided for in the TTAC, and there is no final decision that recognizes them; and yet,</p> <p>iv the proposal to create the ten priority thematic axes, as described in item 4.3 of this Reference Form, which materialize the main divergences between the parties, in order to expedite the implementation of the TTAC reparation and compensation programs, was presented at the end of 2019, which is why such information is provided for in this Reference Form and was not in the Reference Form for the year 2018;</p> <p>there is no contradiction to the existence of these discussions, whose mechanisms are provided for in the TTAC, with the statement that the agreement has been fulfilled by the parties and the Company, whose exclusive financial obligation in January 2021, also received the letter no. 008/2021 of the State Legislature of the State of Espírito Santo, which generally alleges the existence of non-compliance with clauses 19 and 38 of the TTAC, in relation to the payment of compensation to rural producers impacted by the breach of Fundão dam.</p> <p>In response, Vale clarified, among other issues, that: (i) the preparation and execution of projects, within the guidelines established by the socioeconomic and socio-environmental programs provided for in the TTAC, are solely and exclusively the responsibility of the Renova Foundation, established and maintained by SAMARCO, VALE and BHP. The funding entities shall be responsible for the financial obligations of the TTAC,</p>
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	<p>especially the contribution of resources for the formation and maintenance of the heritage of the Renova Foundation. These financial obligations are primarily up to SAMARCO, and only in case of non-compliance with this obligation, is that Vale and BHP, in the proportion of 50% for each, would bear any amounts not allocated to the Renova Foundation in relation to each annual budget. This is clearly clear from clause 225 and following clauses of the TTAC; and (ii) despite the existence of several factors unrelated to the measures to be adopted by the Renova Foundation and its funding entities that influence the flow and prevent the conclusion of indemnification proceedings, the Renova Foundation has met the deadlines for payment in the context of indemnification proceedings, which are usually carried out long before maturity, and there is no need to talk about any dilatory action or non-compliance.</p> <p>v did not have its fulfillment questioned.</p> <p>For information on Public Interest Civil Action No. 0069758-61.2015.4.01.3400 and the thematic axes abovementioned, see item 4.3 of this Reference Form.</p> <p>The TTAC does not automatically cover private civil actions, other public interest civil actions, or criminal charges.</p>
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2) Source: Public Interest Civil Action No. 0023863-07.2016.4.01.3800 Preliminary Consent Decree I ("Preliminary Consent Decree I")	
(a) Signatories	Federal Prosecution Office, Samarco, Vale and BHPB
(b) Date of the execution	January 18th, 2017
(c) Description of the facts that led to the execution of the agreement	<p>The Federal Prosecution Office filed the public interest civil action no. 0023863-07.2016.4.01.3800, ongoing before the 12th Federal Court of Belo Horizonte against Samarco and its shareholders seeking compensation for alleged socioeconomic and socioenvironmental damages resulting from the rupture of the Samarco's tailings dam, as well as the adoption of a series of measures in order to mitigate, repair and compensate for the damages allegedly arising from said accident.</p> <p>The value of the Public Interest Civil Action set by its plaintiffs was R\$ 155,052,000,000.00. After a series of negotiations among the authorities, Samarco, Vale and BHPB, the parties entered into the Preliminary Consent Decree I, whose purpose is to establish conditions and parameters for the hiring of a body of technical assistants who will assist the Federal Prosecution Office in a socio-environmental and socioeconomic diagnosis, as well as defining a specific timetable for holding public hearings and prior consultations with traditional populations. Financial guarantees were also provided to comply with the court order issued under the case no. 0069758-61.2015.4.01.3400.</p> <p>This Commitment Agreement was amended on November 16th, 2017, with MPF and MPMG, in order to include the hiring of Experts from the area of socioeconomics to: (i) elaboration of a socioeconomic diagnosis by Fundação Getúlio Vargas, (ii) provision of technical advisory services to those affected and coordination of public hearings by the Brazilian Fund for Human Rights; and (iii) definition of mechanisms for participation and social control. All other clauses of the Preliminary Consent Decree, including the guarantees, remained unchanged.</p> <p>Based on the amendment and the progress of the negotiations, the Parties requested the extension of the deadline for the conclusion of the Final Commitment Agreement and hiring of Experts.</p> <p>On April 20th, 2018, the court of the case granted a new extension of time for the conclusion of the Final Commitment Agreement and hiring of Experts, until June 25th, 2018. On this date, the contracts entered into with the Brazilian Fund for Human Rights and with the Getúlio Vargas Foundation were signed and presented in court to carry out the work on the socioeconomic axis.</p>

(d) Assumed obligations	<p>It was assumed by the contracting companies the obligation of fully funding the activities to be executed by the experts, advisors/technical assistants, as well as financing the socio-environmental and socio-economic reparation programs of the impacts resulting from the breach of the Fundão dam.</p> <p>It was also assumed the obligation of promoting, at least, 11 public hearings, being 5 in the State of Minas Gerais and 3 in the State of Espírito Santo and one for each Indigenous Territory involved in the TTAC (Krenak, Comboios and Caieiras Velhas).</p> <p>The companies have committed to giving to the 12th Federal Court of Belo Horizonte guarantees for the accomplishment of the funding and financing obligations of the Programs for Socio-Environmental and Socio-Economic Reparation of the impacts resulting from the breach of the Fundão dam, in the amount of R\$ 2.2 billion.</p>
(e) Deadline, if any	<p>See below the main deadlines:</p> <ul style="list-style-type: none"> ▪ From January 30th, 2017 to November 27th, 2017 – Companies will make available to experts all studies and research conducted so far for impact assessment; petition for suspension requests in court; completion of the hiring of experts; definition of schedule, technical support and methodology of public hearings and prior inquiries; conclusion of hearings and prior inquiries; meetings and steps to define the final Consent Decree instrument – including the Government and, where possible or appropriate, other branches of the Public Prosecution Office; deadline for signing preliminary contracts with the Getúlio Vargas Foundation and the Brazilian Fund for Human Rights . ▪ Until June 25th, 2018: Deadline for signature of the final consent decree and hiring of Socioeconomics Experts. <p>Pursuant to this Preliminary Consent Decree, the schedule is subject to modifications, by reason of the negotiations with the Federal Prosecution Office.</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	<p>This Preliminary Consent Decree I is being duly accomplished in the agreed form. The negotiations have been executed towards the signing of a final agreement.</p>
(g) Consequences in case of non-compliance	<p>Failure to comply with the deadline for concluding the hiring of experts, due to the exclusive fault of the companies, will imply a daily fine of R\$ 100,000.00, to be reverted to the hiring of the referred to experts.</p>
(h) Other observations	<p>The Preliminary Consent Decree I was ratified by the Judge of the 12th Federal Court of the Judicial District of Belo Horizonte on March 16th, 2017.</p>

3) Source: Public-Interest Civil Action no. 0010263-16.2016.4.01.3800 Preliminary Commitment Agreement for the Creation of the Reserve and Implementation of Socio-Economic and Socio-Environmental Reparation Measures in the area of Barra Longa ("Preliminary Consent Decree II")

(a) Signatories	Federal Prosecution Office, Samarco, Vale and BHPB
(b) Date of the execution	January 18th, 2017
(c) Description of the facts that led to the execution of the agreement	<p>The Public Prosecution Office of the State of Minas Gerais filed a public-interest civil action under no. 0010263-16.2016.4.01.3800, before the 2nd Civil Court of the Judicial District of Ponte Nova, later remitted to the 12th Federal Court of the Judicial District of Belo Horizonte, claiming for the adoption and funding, by Samarco, Vale and BHPB, of a series of measures to repair damages caused by the breach of the Fundão Dam in the municipalities of Barra Longa, Rio Doce, Santa Cruz do Escalvado and Ponte Nova.</p> <p>Whereas Samarco, Vale and BHPB have agreed with the Public Prosecution Office of Minas Gerais to adopt certain measures to mitigate the impact of Fundão's failure in the municipality of</p>

	<p>Mariana, the Federal Prosecution Office understands that the same measures should be implemented, as applicable, in Barra Longa and adjacent areas. In view of the foregoing, the signatory companies have agreed to adopt the measures described below in Barra Longa and adjacent areas.</p>
(d) Assumed obligations	<ul style="list-style-type: none"> ▪ Payment of emergency financial aid to the affected families, to be deducted from a possible future indemnity. In the event that a family unit has more than one economically active member, who is unable to continue his/her work, due to the breach of the Fundão Dam, the amount will be paid to each one of them; ▪ Payment of expenses related to residential rental for the dislodged families, as well as the providing of furniture, bedding, household appliances and utensils needed to maintain a decent life. This obligation shall survive until the final resettlement; ▪ Establishment of a communication channel that allows access to information in an assertive and agile manner; ▪ Provision of health assistance to the affected families, providing, immediately, a team of health professionals, including medical doctors, nurses, psychologists and social workers, to provide care on all days of the week, in liaison with the Municipal Health Departments of the elected municipalities, as well as dispensing medicines and supplies necessary to the medical care, in accordance with the medical prescription of the above-mentioned health team, in a form supplementary to the Brazilian Universal Healthcare Program – SUS; ▪ Promote the rescue of assets, animals and other, including those belonging to the affected persons, that could be given back; ▪ Hiring independent multidisciplinary advisory services, with recognized experience and reputation in the area, chosen by the community and with the participation of the Public Prosecution Office, with the aim at monitoring the implementation of the programs and providing the affected families with technical and legal support; ▪ Reconstruction of rural infrastructure; and ▪ Registration of those affected, subject to review, in case of failures or gaps identified by the technical advisors and agreed by the parties. <p>The companies have committed to creating a reserve in the amount of R\$ 200 million on behalf and under the management of the companies or of third parties freely identified by them, with the purpose of funding and financing the Socio-Economic and Socio-Environmental Reparation Programs in Barra Longa and adjacent areas.</p>
(e) Deadline, if any	<p>The companies agreed, within a maximum period of 15 days, counted from the signature of this Preliminary Consent Decree II, to start the necessary provisions for the execution of the measures.</p> <p>The amounts of R\$ 200 million will be contributed, in advance, with information to the Federal Prosecution Office, by the companies within 90 days after acceptance of the guarantees provided for in the Preliminary Consent Decree I signed with the Federal Prosecution Office, on the same date.</p> <p>The amounts of R\$ 200 million will be contributed according to the following schedule: (i) R\$ 50 million until February 28th, 2017; (ii) R\$ 100 million until March 31st, 2017; and (iii) R\$ 50 million until April 30th, 2017.</p>

	<p>Failure to comply with the deadlines defined herein shall imply a daily fine of R\$ 100,000, to be reverted to the accomplishment of the purpose of this Commitment Agreement.</p> <p>The companies will submit to the Federal Prosecution Office, within 30 days, a detailed report of the measures that are planned or being implemented in Barra Longa and its adjacent areas.</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	This Preliminary Consent Decree II is being duly accomplished in the agreed form.
(g) Consequences in case of non-compliance	Failure to comply with the defined deadlines shall imply a daily fine of R\$ 100,000.00, to be reverted to the accomplishment of the purpose of this Preliminary Consent Decree II.
(h) Other observations	The Preliminary Consent Decree II was ratified by the Judge of the 12 th Federal Court of the Judicial District of Belo Horizonte. The confirmatory decision was published on March 23rd, 2017.

4) Governance Consent Decree Term in the scope of Public Civil Lawsuits no. 00238630720164013800 and 00697586120154013400 ("TAC Governance")

(a) Signatories	Federal Prosecution Office, Prosecution Office of the State of Minas Gerais, Public Prosecution Office of the State of Espírito Santo, Federal Government Public Defender's Office, Public Defender's Office of the State of Minas Gerais, Public Defender's Office of the State of Espírito Santo, Samarco Mineração S.A., BHP Billiton Brasil Ltda., Renova Foundation, Vale and other governmental entities.
(b) Date of the execution	June 25th, 2018
(c) Description of the facts that led to the execution of the agreement	<p>On June 25th, 2018, Vale, Samarco, BHPB and the Federal and State Public Prosecutor's Offices (Minas Gerais and Espírito Santo), public defenders and attorneys general, among others, entered into a comprehensive agreement to improve the governance of Renova Foundation and to establish a process for possible revisions of TTAC remediation programs based on the results of experts contracted by Samarco to advise the MPF over a two-year period (the June 2018 Agreement). The June 2018 Agreement provided for the closure of certain actions, including public civil actions filed by the Brazilian federal government and the States of Minas Gerais and Espírito Santo. It also contemplates the future termination of other public civil actions through agreement on remedial programs under expert review, and confirmed the guarantee provided by the parties to guarantee payment of remediation measures in the amount of R\$ 2.2 billion.</p> <p>On August 08th, 2018 the TAC Governance was filed in its entirety. In addition, the amendment to the Preliminary Consent Decree I was filed, in part and with interpretative / additive reservations (for more information on this term, see table above). In view of these approvals, the phase of knowledge of ACP No. 0069758-61.2081.3400 was dismissed with prejudice, and the partial termination, in the extension of the applications covered by the agreement, of ACP No. 23863-07.2016.4.01.3800, was agreed upon.</p> <p>It should be noted that the Governance TAC consists of an instrument, which purpose is to (a) change the governance process set forth in the Transaction and Conduct Adjustment Agreement in the scope of Public Civil Lawsuit No. 0069758-61.2015.4.01.3400 ("TTAC") for the definition and execution of programs, projects and actions that are intended to provide full compensation for damages resulting from the failure of the Fundão dam, (b) improvement of mechanisms for effective participation of the persons affected by the failure, and (c) establishment of a negotiation process, aiming at the possible renegotiation of the programs set forth by the TTAC.</p>
(d) Assumed obligations	<ul style="list-style-type: none"> Hiring of managers, through which expenses will be incurred by members of the Inter-federative Committee, Local Commissions, Regional Commissions and Observer Forum with participation and logistics and meeting structures, as

	<p>well as monitoring activities of the Interfederal Committee - CIF, within the limits previously established of annual budgets.</p> <ul style="list-style-type: none"> ▪ Redefinition of the contracts with the experts, according to the new attributions derived from the new governance of the TTAC. ▪ Preparation and approval of a management policy for the costing of the Interfederal Committee - CIF and damaged parties.
(e) Deadline, if any	The selection of the managers, for submission to the approval of the Public Prosecution Office, must be done in 10 days. As for the process of redefining the scope of the experts, it must start in 10 days and be completed in 60 days, counting from the ratification of the agreement. The other obligations do not have a defined period.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	The Consent Decree has been implemented, as agreed between the parties.
(g) Consequences in case of non-compliance	The unjustified noncompliance of any costing obligations assumed by the companies and Foundation will cause to the companies a daily fine of R\$ 100,000.00 per unfulfilled obligation.

(C) Other Relevant Consent Decrees and Commitment Agreements

1) TAC Fauna – Barão de Cocais	
Source: ACP 0003811-02.2019.8.13.0054	
(a) Signatories	Public Prosecution Office of the State of Minas Gerais and Vale S.A.
(b) Date of the execution	May 29th, 2019
(c) Description of the facts that led to the execution of the Agreement	Adoption of measures to continue the protection of domestic and wild animals that have already been rescued, or that are still in the dam break areas of the Sul Superior Dam, subject matter of ACP 0003811-02.2019.8.13.0054, and still within the scope of this proceeding, to establish ecological compensation for the impacts on fauna resulting from evacuations, which are the subject matter of said demand.
(d) Assumed obligations	<p>Maintain the measures established in the emergency plans for the search, rescue and care of animals in areas provided for in the "Dam Break" in question, according to the declared emergency level.</p> <p>Carry out all the measures provided for in the Action Plan for the Protection of Fauna, promoting improvements in their actions, as indicated by public agencies and the Committed Party.</p> <p>Maintain enough dedicated professionals to form a qualified technical team, preferably qualified in ecological management, to carry out search, rescue and care of animals; and provide infrastructure, equipment, machinery, vehicles and supplies necessary for the search, rescue and care of animals.</p> <p>Promote the immediate rescue of isolated animals and, until the rescue is carried out, the provision of food, water and veterinary care.</p> <p>Carry out actions aimed at locating the guardians of the rescued animals, according to the plan prepared by a qualified professional, which provides, at least, for advertising campaigns, face-to-face actions with the affected residents, as well as the creation of a virtual database for reference and executive schedule.</p> <p>Promote the adoption of dogs, cats and other small or large domestic animals rescued and not returned to their guardians, and, for this purpose, they must hold fairs and advertising campaigns for this purpose, for a period of twelve (12)</p>

	<p>months after the end of the emergency situation in all evacuated areas.</p> <p>Carry out ecological compensation for impacts on fauna resulting from evacuation.</p> <p>Transfer R\$ 1 million to the Municipality of Barão de Cocais to develop and execute programs aimed at apprehending, welcoming, caring and keeping animals.</p> <p>On March 3rd, 2020, the parties entered into an amendment to the TAC, whereby an obligation to deposit R\$ 2 million in a judicial bank account was included, with the first installment to be paid within 30 days from the date of receipt of the account data, and the second on the same subsequent day.</p>
(e) Deadline, if any	<p>Promote, in 20 days, improvements in the Action Plan for the Protection of Fauna.</p> <p>Perform (i) the test for canine visceral leishmaniasis (CVL) of all rescued dogs, according to official public protocol, within 30 days from receiving the animals at the shelter; and (ii) start the treatment of animals testing positive for CVL, through the use of officially permitted medication and repellent collars, within 10 days from diagnosis.</p> <p>Submit, on a monthly basis, for 24 months, the printed report of the actions taken to comply with the Agreement.</p> <p>Submit an action plan provided for in the Instrument, within 30 days from the execution of the document.</p> <p>Promote, for a period of 12 months, the adoption of dogs, cats and other small or large domestic animals rescued and not returned to their guardians, and, for this purpose, they must hold fairs and advertising campaigns for this purpose.</p> <p>Inspect, for a period of 8 months, the delivery of animals to the adopters, upon signature of a responsible custody agreement.</p> <p>Submit to the State Forestry Institute (IEF), within 45 days, with copy to the MPMG: (a) Rehabilitation, release and monitoring plan for wild animals seized in captivity in the evacuation areas; (b) Monitoring Plan for wildlife in the dam break area and its surroundings.</p> <p>Carry out ecological compensation for the impacts on fauna resulting from evacuations, by supporting the development and implementation of an ethical population control project for dogs and cats in the Municipality of Barão de Cocais; (ii) support in the preparation and execution of a program aimed at the apprehension, reception, care and custody of medium and large stray animals, and must be registered in the Semente platform within 90 days, in the amount of R\$ 1 million, which must be transferred within 45 days from the signature of the commitment agreement with the platform. If the project is not registered in the Semente Platform within 90 days, or after that period, the deposit of the amount must be made into the FUNEMP account, within 30 days from notification by the MPMG.</p> <p>On March 3rd, 2020, the 1st Amendment to the Commitment Agreement was executed, establishing the deposit of R\$ 2 million in a judicial bank account, and the first installment must be paid within 30 days of receipt of the account data, and the second on the same day of the following month. The deposit was made on May 11th, 2020, has not yet been added to the case record due to the suspension of the functioning of the physical protocols.</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	<p>The Company is adopting the necessary conducts to fulfill the obligations of the TAC.</p>

(g) Consequences in case of non-compliance	Daily fine of up to R\$ 100 thousand.
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2) TAC FAUNA – Macacos (Nova Lima)	
Source: ACP 5000683-69.2019.8.13.0188	
(a) Signatories	Public Prosecution Office of the State of Minas Gerais and VALE S.A.
(b) Date of the execution	August 30th, 2019
(c) Description of the facts that led to the execution of the Agreement	Measures to continue the protection of domestic and wild animals that have already been rescued, or that are still in the self-rescue zone (ZAS) of the B3 and B4 dams, subject matter of ACP 5000683-69.2019.8.13.0188
(d) Assumed obligations	<p>Maintain the measures established in the emergency plans for the search, rescue and care of animals in the ZAS of the dams.</p> <p>Promote the immediate rescue of isolated animals and, until the rescue is carried out, the provision of food, water and veterinary care.</p> <p>Carry out actions aimed at locating the guardians of the rescued animals, according to the plan prepared by a qualified professional, which provides, at least, for advertising campaigns, face-to-face actions with the affected residents, as well as the creation of a virtual database for inquiry and executive schedule.</p> <p>Promote the adoption of dogs, cats and other small or large domestic animals rescued and not returned to their guardians, and, for this purpose, they must hold fairs and advertising campaigns for this purpose, for a period of twelve (12) months after the end of the emergency situation in all evacuated areas.</p> <p>Carry out ecological compensation for impacts on fauna resulting from evacuations, by depositing R\$ 2 million in a judicial bank account, within 30 days from the receipt of the account data. The deposit was made on February 5th, 2020 and added to the case record on February 7th, 2020.</p>
(e) Deadline, if any	<p>Perform within 30 days from the signature of the instrument, improvements to the Action Plan for the Protection of Fauna, including, among others, proposals for measures to drive away wild animals from emergency areas, a communication plan with the affected community on animal care, and animal collection in the secondary security zone (ZSS).</p> <p>Carry out ecological compensation for impacts on fauna resulting from evacuations, by depositing R\$ 2 million in a judicial bank account, within 30 days from the receipt of the account data.</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	The Company is adopting the necessary conducts to fulfill the obligations of the TAC and has already made the payment of the compensatory value.
(g) Consequences in case of non-compliance	Daily fine of R\$ 100 thousand.

3) TC Water Security	
Source: ACP 5010709-36.2019.8.13.0024, ACP 5026408-67.2019.8.13.0024 and ACP 5044954-73.2019.8.13.0024	
(a) Signatories	Public Prosecution Office of the State of Minas Gerais, VALE S.A., with the intervention of AECOM, the State of Minas Gerais, COPASA, and the Federal Prosecution Office.
(b) Date of the execution	February 07th, 2020
(c) Description of the facts that led to the execution of the agreement	Performance of technical-environmental feasibility studies and preparation of basic designs based on these studies of structural interventions that guarantee compliance with the current water demand of RMBH, corresponding to 15,000 L/s.
(d) Assumed obligations	1) Prepare and complete the Feasibility Studies to support the assessment of the technical and environmental feasibility of implementing a new water catchment, adduction and reserve in Ribeirão da Prata, with a minimum flow of 600 L/s;

	<p>2) Prepare and complete the Feasibility Studies to support the assessment of the technical-environmental feasibility of implementing a new water catchment, adduction and reserve in the region called "Ponte de Arame do Rio das Velhas", assuring the minimum expected flow of 2,000 L/s, and required operating flow even during dry periods.</p> <p>3) Prepare and complete the Feasibility Studies to support the assessment of the technical and environmental feasibility of implementing a new water catchment, adduction and reserve in Ribeirão Macaúbas, with a minimum flow of 2500 L/s.</p> <p>4) Prepare and complete the Feasibility Studies to support the assessment of the technical-environmental feasibility for the expansion of the Rio Manso system, included between the catchment and the Morro Vermelho reservoir, including the ETA pipelines, elevations and substation, in order to achieve a nominal flow of 9,000 l/s.</p> <p>5) Prepare and complete the Feasibility Studies to support the assessment of the technical-environmental feasibility for the implementation of a Transfer pipeline between the Paraopeba Basin (SPB) and Rio das Velhas (SRV) Systems, for a transport capacity of 3,200 L/s.</p>
(e) Deadline, if any	The deadlines agreed on the schedule between VALE, MPMG and Copasa are being met in a timely manner.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	<p>The Company is adopting the necessary conducts to fulfill the obligations of the TAC.</p> <p>This Agreement was ratified by the Global Agreement executed on February 4th, 2021.</p>
(g) Consequences in case of non-compliance	Daily fine of R\$ 100 thousand.

4) Environmental Commitment Agreement no. 035/2018

(a) Signatories	Vale S.A., Federal Prosecution Office ("MPF") Prosecution Office of the State of Espírito Santo ("MP/ES"), State of Espírito Santo, State Secretariat for the Environment and Water Resources ("SEAMA") and State Institute of Environment and Water Resources ("IEMA").
(b) Date of the execution	September 21st, 2018.
(c) Description of the facts that led to the execution of the agreement	Environmental Commitment Agreement ("TCA"), executed between Vale S.A., MPF, MP/ES, State of Espírito Santo, SEAMA and IEMA with the purpose of obeying the recommendations of CETESB arising from the Environmental Commitment Agreement previously executed, which covers the same subject, aiming at ensuring improvements on the control of atmospheric emissions in the Tubarão Unit for the improvement of the air quality of the Metropolitan Region of Greater Vitória.
(d) Obligations assumed by Vale and deadlines	<p>Implementation of the Guidelines, Goals (48 goals), and Action Plan based on the Emission Reduction Targets Plan of the Tubarão Industrial and Port Complex proposed by IEMA, resulting from the technical analysis services carried out by CETESB.</p> <p>Short-term goals are expected to end at least 12 months after the signing of the TCA.</p> <p>Long-term goals can vary up to 5 years from the date of signing the TCA.</p>
(e) Information on the actions adopted to comply with the obligations assumed in the agreement	<p>VALE is making every effort to comply with the TCA and its monitoring is monitored monthly by the Monitoring Committee, consisting of representatives of all TCA signatories, as well as possibly representatives of the Municipalities of Vitória, Vila Velha and Serra.</p> <p>It also includes the Preliminary Atmospheric Environmental Commitment Agreement ("TCAP"), signed by Vale S.A., Federal Prosecution Office ("MPF"), Prosecution Office of the State of Espírito Santo ("MP/ES"), State of Espírito Santo, State Secretariat for the Environment and Water Resources ("SEAMA") and State Institute of Environment and Water Resources ("IEMA") on November 17th, 2017.</p>
(f) Consequences in case of non-compliance	<p>In the event of unjustified non-compliance with the obligations assumed in this TCA, provided that it has been established that the default occurred due to Vale's sole fault, the MPF and the MPES should notify the company so that any non-compliance is remedied and/or justified within 30 days, under the penalty of the incidence of a compensatory fine worth R\$50,000.00, per day of delay, limited, in any case, to the amount corresponding to the respective obligation that was not met, and it cannot exceed R\$ 100,000,000.00.</p> <p>The presentation of the rationale by Vale, documented and understood as appropriate by the MPF and MPES, will impede the application of the compensatory fine. In the event that MPF and MPES consider that Vale's rationale is unfounded, they must notify the company of the application of the compensatory fine.</p> <p>The values of any penalties will be allocated to the State Fund for the Environment, FUNDEMA, set up by State Complementary Law No. 513 of December 11th, 2009, 20% to the Municipal Environment Fund called FUNDAMBIENTAL, established by the Municipal Law of Vitoria No. 7,876 dated January 12th, 2010 and 10% divided to the Municipal Funds of the Environment of the Municipalities of Vila Velha and Serra, provided the conversion in service or donation of assets for the development of actions aimed at environmental protection and control, respecting the proportionality and the form to be established by the Entities, or, if proposed by Vale, with the approval of the Entities.</p>

5) Instrument of Conditioned Permit - TDC No. 001/2019

(a) Signatories	Vale S.A and Municipality of Vitória
(b) Date of the execution	February 12th, 2019.
(c) Description of the facts that led to the execution of the agreement	Vale signed with the City Hall of Vitória/ES an Instrument of Conditioned Permit of the Tubarão Port Complex ("TDC"), with the release of the effluent treatment systems interdicted on February 7th, 2019, with the consequent immediate return of operations in the yard of raw materials, in pelletizing plants 1, 2, 3 and 4, circulation of the access way to the coal pier.
(d) Obligations assumed by Vale and deadlines	The agreement establishes that Vale will invest in actions to improve liquid and atmospheric effluent treatment systems on plants 1 and 4, and on the improvement of the air quality of the municipality of Vitória. Varied deadlines established according to the nature of each obligation.
(e) Information on the actions adopted to comply with the obligations assumed in the agreement	VALE is making every effort to comply with the TDC.
(f) Consequences in case of non-compliance	In case of unjustified non-compliance with the obligations assumed by Vale, the TDC may be suspended and/or terminated with the possibility of further prohibitions. In addition to the termination of the TDC, Vale will be subject, in case of non-compliance, to the application of the penalties established in art. 16, item XXXII of Municipal Decree No. 10,023/1997.

6) Instrument of Cooperation not arising from Legal / Administrative Proceeding	
Source: Commitment Agreements signed with the Indigenous Land Community (TI) Mãe Maria	
(a) Signatories	Mpakwyri Mpawor Indigenous Association, Gaviao Je Amjip Indigenous Association, Parkrekapare Association, Je Jokrityiti Association, Te Mempapytarka Indigenous Association, Parkateje Amjip Indigenous Association and Vale
(b) Date of the execution	May 19th, 2015; May 29th, 2015; May 26th, 2015; May 07th, 2015; April 01st, 2015; May 01st, 2015.
(c) Description of the facts that led to the execution of the agreement	Based on its social responsibility policy, Vale already had Commitment Agreements signed with the indigenous people who live in TI Mãe Maria, whose validity expired in 2012. So, due to the influence of the Carajás Railroad ("EFC") on this community, Vale decided to keep the transfer of funds intended to meet the emergency needs of the members of the community, ensuring the execution of the study of the Indigenous Component and of the Basic Environmental Plan ("PBA"), documents required for the licensing process of the Carajás Railroad expansion, now counting on the participation of FUNAI, which is assisting the communities in the management of the funds.
(d) Assumed obligations	Make financial transfers for the support of the actions of health, education, productive activities, territory surveillance and administration. On the other hand, the indigenous communities undertook not to paralyze any productive activity or to invade Vale's facilities, especially the Carajás Railroad, as well as to authorize the study of the Indigenous Component and the PBA, documents necessary for the approval of the licensing process of the Carajás Railroad expansion project.
(e) Deadline, if any	Several deadlines, due in July 2021. The Community Relationship Board, together with the legal area, is currently discussing with the Indigenous Community Gavião of the TI Mãe Maria the conditions for the execution of a new Commitment Agreement that will replace the one that is about to expire.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	The Community Relationship Board has focal points that monitor compliance with the obligations established in the Commitment Agreements, in particular the transfer of financial resources.
(g) Consequences in case of non-compliance	Non-compliance with the indigenous part may result in the suspension of the transfer of resources and health care. If Vale is responsible for the non-compliance, this creates the risk that the indigenous people will promote actions that may stop or interfere with the activities of the Company or its subsidiaries, such as demonstrations that imply the stoppage of the EFC, adversely affecting the EFC's rail operations. These interactions also tend to have repercussions on the lack of liberation, by the indigenous people, of the access of Vale's teams or contractors who carry out studies related to the environmental licensing

	processes and the execution of actions related to the fulfillment of conditions, and may be characterized as a failure to comply with the environmental licenses granted by the environmental body and weaken the position of Vale or its subsidiaries at an institutional level, without mentioning the executive measures to be taken by MPF, IBAMA, FUNAI and other entities involved in the protection of indigenous rights.
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7) 2nd Amendment to the Term for the Promotion of Sustainable Development, formalized with FUNAI and the Krenak People, effective from 2011 to 2019, this term being an addendum to the Agreement that finalized Public-Interest Civil Action no. 2006.38.13.009676-0	
Source: Authorized agreement that extinguished the Public Civil Action filed by MPF and FUNAI against CEMIG - Companhia Energética de Minas Gerais, CVRD - Companhia Vale do Rio Doce and CHA - Aimorés Hydroelectric Consortium ("<u>Public Civil Action</u>" and "<u>Agreement</u>"), respectively). Following the termination of the Agreement, on November 30th, 2011, the Company freely offered to formalize the following documents: (i) Term to Promote the Sustainable Development of the Krenak Indigenous Land ("<u>Term of Development</u>"), (ii) First Amendment to the Term of Development and (ii) Second Amendment to the Term of Development.	
(a) Signatories	<p>a) Agreement - MPF, FUNAI, CEMIG - Companhia Energética de Minas Gerais, CVRD - Companhia Vale do Rio Doce and CHA - Aimorés Hydroelectric Consortium;</p> <p>b) Term of Development - Vale, Krenak Indigenous People, FUNAI and MPF;</p> <p>c) First Amendment to the Term of Development - Vale, Krenak Indigenous People, FUNAI and MPF;</p> <p>d) Second Amendment to the Term of Development - Vale, Krenak Indigenous People and with the intervention of FUNAI</p> <p>d) Third Amendment to the Term of Development - Vale, Krenak Indigenous People and with the intervention of FUNAI</p> <p>d) Fourth Amendment to the Term of Development - Vale, Krenak Indigenous People and with the intervention of FUNAI</p>
(b) Date of the execution	<p>(a) Agreement - executed on July 18th 2008 - effective from July 18th, 2008 to November 30th, 2011</p> <p>(b) Term of Development - executed on October 24th, 2011 - effective from December 01st, 2011 to June 01st, 2012</p> <p>(c) First Amendment to the Term of Development - executed on May 03rd, 2012 - effective from December 01st, 2011 to December 01st, 2013*</p> <p>(d) Second Amendment to the Term of Development - executed on March 27th, 2015 - effective from December 01st, 2011 to December 01st, 2019 *</p> <p>(e) Third Amendment to the Term of Development - Executed on November 13th, 2019 - effective from December 01st, 2011 to September 01st, 2020*</p> <p>(f) Fourth Amendment to the Term of Development - Executed on September 01st, 2020 - effective from December 01st, 2011 to April 01st, 2021**</p> <p>*The amendments above change clauses of the original Term of Development, producing retroactive effects. Therefore, their respective validity should be considered as of December 01st, 2011, the effective date of the Term of Development.</p> <p>**The third and fourth amendments only change the deadline of the Original Term of Development.</p>
(c) Description of the facts that led to the execution of the agreement	The homologation of the Agreement terminated the Public Interest Civil Action, filed by the MPF and FUNAI, the objective of which was to implement measures to mitigate and compensate for the implementation of the Aimorés Hydroelectric Power Plant. The objective of the formal Agreement was to provide environmental, social and economic assistance through the recuperation of 54 hectares of green area, the construction of 5 cultural centers and the implementation of a dairy cattle project. After the termination of the Agreement, at the free will of the Company, and to maintain the support of and Vale's relationship with the Krenak People, new terms were formalized, maintaining the Company's assistance to the ethno-development of the indigenous people. The instrument currently in force is the Second Amendment to the Term of Development.

(d) Assumed obligations	Provide financial and technical support for the dairy cattle project, in addition to the delivery of ration, mineral salt, and medicines for cattle and basic food baskets to families.
(e) Deadline, if any	<p>(a) Agreement - July 18th, 2008 to November 30th, 2011 - executed on July 18th, 2008</p> <p>(b) Term of Development - December 01st, 2011 to June 01st, 2012 - executed on October 24th, 2011</p> <p>(c) First Amendment to the Term of Development - December 01st, 2011 to December 01st, 2013* - executed on May 03rd, 2012</p> <p>(d) Second Amendment to the Term of Development - December 01st, 2011 - December 01st, 2019* - executed on March 27th, 2015</p> <p>(e) Third Amendment to the Term of Development - December 01st, 2011 - September 01st, 2020 - Executed on November 13th, 2019</p> <p>(f) Fourth Amendment to the Term of Development - December 01st, 2011 - April 01st, 2021 - Executed on September 01st, 2020</p> <p>*The amendments above change clauses of the original Term of Development, producing retroactive effects. Therefore, their respective validity should be considered as of December 01st, 2011, the effective date of the Term of Development. ** The additive terms, third and fourth, only change the term of the Original Promotion Term.</p>
(f) Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	The Relationship Management with Indigenous Peoples and Traditional Communities has a focal point that monitors compliance with the obligations established in the Second Amendment to the Term of Development.
(g) Consequences in case of non-compliance	Non-compliance by the indigenous people of the Second Amendment to the Term of Development may result in the suspension of the transfer of resources. If the non-compliance is attributed to Vale, there is a risk that the indigenous people may promote actions that stop or interfere with the activities of the Company or its subsidiaries, such as demonstrations that imply the stoppage of the Vitória-Minas Railroad ("EFVM"), adversely affecting the EFVM railway operations. These interactions also tend to have repercussions on the lack of liberation, by the indigenous people, of the access of Vale's teams or contractors who carry out studies related to the environmental licensing processes and the execution of actions related to the fulfillment of conditions, and may be characterized as a failure to comply with the environmental licenses granted by the environmental body and weaken the position of Vale or its subsidiaries at an institutional level, without mentioning the executive measures to be taken by MPF, IBAMA, FUNAI and other entities involved in the protection of indigenous rights.

8) Agreed Judgment

Source: Case no. 21337.52.2011

a. Signatories	Vale, MPF, Palmares Cultural Foundation, National Institute of Colonization and Agrarian Reform and IBAMA.
b. Date of the execution	March 08th, 2012
c. Description of the facts that led to the execution of the agreement	Complaint from the MPF regarding the insufficiency of Vale's environmental study, which subsidized the licensing process for the Carajás Railroad expansion project, alleging a lack of effective diagnosis of the impacts upon the two quilombola communities located in the State of Maranhão.
d. Assumed obligations	<p>(i) The transfer of the amount of R\$ 700,000.00, in favor of the Palmares Foundation, to enable the construction of health and educational centers; and</p> <p>(ii) Preparation of a study on local environmental impacts, recovery of water courses and installation of viaducts in the next four years, according to a schedule defined in a legally binding agreement.</p>
e. Deadline, if any	All the deadlines defined in the executed Term related to Vale have already been met, which we may highlight (i) the transfer of R\$ 700,000.00, already paid, in favor of the communities,

	which is necessary to pay for the acquisition and construction of social devices by the community and the Palmares Foundation; (ii) performance of an environmental study – already carried out and registered with IBAMA – and adoption of measures to mitigate the impacts generated by the Company's works and operations in the region; (iii) construction of four viaducts in favor of the communities involved in the agreement. The viaducts have already been built and delivered.
f. Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	Acting before IBAMA to obtain manifestation of the body regarding the environmental study produced by Vale.
g. Consequences in case of non-compliance	The MPF may request that the Company be compelled to comply with the assumed obligations, under penalty of fine to be defined by the competent federal court.
h. Other observations	Vale has already deposited the amount established in the agreement, as well as completed the construction of two viaducts, which were passed on to the Municipal Governments. The Company registered in the trial of the case the evidences of the fulfillment of the obligations, requesting the extinction of the proceeding, and is awaiting the issuance of an order to that effect.

9) Instrument of Cooperation not arising from Legal / Administrative Proceeding	
Source: Commitment Agreements signed with Indigenous Communities in Maranhão.	
a. Signatories	Vale, Guajajara Indigenous Community of the Caru Indigenous Land, Guajajara Indigenous Community of the Rio Pindaré Indigenous Land, Ka'apor Indigenous Community of the Alto Turiaçu Indigenous Land, Awá Indigenous Community of the Caru, Awá and Alto Turiaçu Indigenous Lands and Brazilian Indian Foundation – FUNAI.
b. Date of the execution	February 20th, 2017
c. Description of the facts that led to the execution of the agreement	Based on its social responsibility policy, Vale already had Commitment Agreements entered into with the indigenous peoples whose indigenous lands are close to the Carajás Railroad (EFC). Due to the influence of the railroad on these communities, Vale decided to maintain the transfer of financial resources destined for the application in strategic actions of territorial protection, preservation and conservation of natural resources, economic sustainability and income generation, cultural strengthening, institutional strengthening, health, education, citizenship, basic sanitation and infrastructure, with observance of what was approved by the Fiscal Council constituted to monitor the application of the resources, counting on the participation of FUNAI, which is assisting the communities in the administration of the amounts received.
d. Assumed obligations	Transfer of financial resources destined for the application in strategic actions of territorial protection, preservation and conservation of natural resources, economic sustainability and income generation, cultural strengthening, institutional strengthening, health, education, citizenship, basic sanitation and infrastructure, with observance of what was approved by the Fiscal Council constituted to monitor the application of the resources.
e. Deadline, if any	Deadline of 10 years.
f. Information on the conduct that is being adopted to comply with the obligations assumed in the agreement	The Community Relationship Board has focal points that monitor the fulfillment of the obligations established in the Commitment Agreements, which is already in its fourth year of execution, especially the transfer of financial resources.
g. Consequences in case of non-compliance	Non-compliance with the indigenous part may result in the suspension of the transfer of resources. If Vale is responsible for the non-compliance, this creates the risk that the indigenous people will promote actions that may stop or interfere with the activities of the Company or its subsidiaries, such as demonstrations that imply the stoppage of the EFC, adversely affecting its rail operations.

10) Environmental Commitment Agreement: TCA of Itabirito Peak	
Source: Public Civil Inquiry no. 0319.02.000001-8 MPMG	
(a) Signatories	Minerações Brasileiras Reunidas S.A. – MBR, Vale S.A., Public Prosecution Office of the State of Minas Gerais ("MPMG"), State Forestry Institute, Minas Gerais State Secretariat for the Environment and Sustainable Development, and Anglogold Ashanti Brasil Mineração Ltda.
(b) Date of the execution	July 09th, 2010
(c) Description of the facts that led to the execution of the agreement	Instrument signed for the environmental and landscape rehabilitation of the Itabirito Peak protection of cultural heritage area and the area covered by the "Trincheira e Mina Velha" waste dumps. Adoption of measures to preserve the Cata Branca Historic and Archaeological Site.
(d) Assumed obligations	<ul style="list-style-type: none"> i) Execute a Rehabilitation Project according to the environmental bodies; ii) Perform the continuous follow-up and monitoring of the implementation of the Project; iii) Develop a Heritage Education Project; iv) Carry out the enclosure of the Cata Branca Mine Archaeological Site and indicative, and interpretative signaling of the area; v) Present the enclosure and signaling project to the IEF and IPHAN for approval; vi) Prepare the geo-referencing of the area; vii) Allow the IEF unrestricted access without cost and without any encumbrance to the area mentioned in item (iv) above, as well as authorize the interventions and constructions intended for the implementation, construction and maintenance of the Conservation Unit, free of charge of any burden, provided that such interventions do not imply, in any way, the restriction to the use of their mining rights, observing the provisions of the agreement.
(e) Deadline, if any	The maximum deadline for the total execution of the rehabilitation project, which may be extended by submitting technical justifications accepted by the Federal Prosecution Office or in case of force majeure or Act of God, was 5 years, counted from September 01st, 2010. See item (f) below for information on Vale's compliance with its obligations.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	<p>Procedures for the recovery of the areas in progress, with execution of enclosure and signaling of the archaeological site, environmental and heritage education programs, and execution of environmental rehabilitation project of the Itabirito Peak area. The TAC was fully complied with, according to an official letter sent by the Company to the MPMG on September 02nd, 2015.</p> <p>On July 14th, 2017, a report was presented by CONPATRI concluding that the TAC was not completely complied with.</p> <p>In November 2017, the Company submitted a technical report challenging said document and corroborating the understanding that the TAC was fully complied with, not having an answer until the date of this Reference Form.</p> <p>In March 2020, the MP requested the sending of updated information on the full TAC service, and this request was answered in May 2020. At the time, VALE reiterated that it fulfilled all TAC obligations, with the completion of environmental rehabilitation works at the Itabirito Peak and approval of the RPPN. It was also emphasized that, although the land regularization of the RPPN property remains necessary, the area receives adequate protection and treatments, being granted full access and support to the IEF for supervising and scheduling technical visits in the area. Since then the investigation has been suspended because of the COVID 19 prevention measures.</p>
(g) Consequences in case of non-compliance	Fine of R\$ 2,500.00/day of delay and execution of the agreed and non-complied part.

11) Consent Decree no. 118/2015

Source: Public Interest Civil Inquiry no. 3212.2014.03.000/9-12 – Regional Labor Attorney of the 3rd Region/MG – Minas Gerais

(a) Signatories	Labor Federal Prosecution Office and Vale S.A.
(b) Date of the execution	July 31st, 2015
(c) Description of the facts that led to the execution of the agreement	The alleged practice of labor analogous to slavery practiced by Vale's contractor, Ouro Verde Locação e Serviços S/A. For further information, see sub-item (i) of item 4.3 of this Reference Form.
(d) Assumed obligations	The preventive and corrective measures have been adjusted to guarantee the labor rights of the employees of the service providers, especially regarding the sanitary conditions of their facilities, and to promote decent work, and elimination of all forms of forced labor or labor analogous to slavery. The commitments undertaken have been properly implemented.
(e) Deadline, if any	Undetermined deadline in the absence of a different provision.
(f) Information on the actions being adopted to comply with the obligations assumed in the agreement	From the second half of 2015, Vale promoted several training sessions with the company's managers, in the same State, in order to inform them of the obligations assumed by Vale. There was guidance for the inclusion of a specific standard clause in the contracts signed by the company, providing for its resolution in the event of the use of child labor or slave labor by the contractor or any situation that may characterize an attack on human dignity.
(g) Consequences in case of non-compliance	R\$ 20,000.00 per item not complied with, up to the limit of R\$ 500,000.00
(h) Other observations	The Consent Decree, in addition to avoiding a possible lawsuit by the Labor Prosecution Office, allows Vale to objectively demonstrate the adoption of measures to prevent the exploit of degrading or slave-like labor in its productive chain, proving the fulfillment of the National Pact to Combat Slave Labor signed by it.

12) Environmental Commitment Agreement of the Camburi Liability ("TCA")

(a) Signatories	Vale S.A., Federal Prosecution Office ("MPF"), Prosecution Office of the State of Espírito Santo ("MP/ES"), State of Espírito Santo, State Secretariat for the Environment and Water Resources ("SEAMA") and State Institute of Environment and Water Resources ("IEMA"), Vitória Municipality and Vitória Municipality Secretariat of Environment ("SEMMAM").
(b) Date of the execution	March 16th, 2017.
(c) Description of the facts that led to the execution of the agreement	It concerns a TCA entered into between Vale SA, MPF, MP/ES, Espírito Santo State, SEAMA, IEMA, Vitoria Municipality and SEMMAM, which consists of the execution of the action plans that allow full compensation and recovery of the Camburi beach northern region.
(d) Assumed obligations and deadlines	<ul style="list-style-type: none"> • Specific monitoring of the beach intervention area: execution, after IEMA and SEMMAM approval, of the environmental monitoring program of the northern region of Camburi Beach, contemplating the actions of adequate monitoring of the involved environmental compartments (water, sediment and biota) of the body of interest and ecosystems of the Bay of Espírito Santo, with systematic documentation of the development of actions and evaluation of trends and possible deviations in the execution of the proposed activities, anticipating and predicting the possibilities of reaching the objectives and recommending corrective and preventive actions for the adjustment or replanning, under supervision by IEMA and SEMMAM, with the following actions: <ul style="list-style-type: none"> ➤ Approval by IEMA, after SEMMAM, of the monitoring plan for water, sediment and biota of the body of interest and ecosystem of the Bay of Espírito Santo presented by Vale on December 07th, 2015. Deadline: 30 days from the date of signing of the TCA; and ➤ Start of execution of the monitoring plan. Deadline: 6 months, from the approval of the monitoring plan by IEMA. • Recovery of the emerged shoreline, by surface removal of sediments with iron from the emerged region and recovery (pedological, vegetative with native and landscape species) of the object area of this Instrument, with the following actions:

	<ul style="list-style-type: none"> ➤ Mapping and identification of the limits of the Coastal Park, in the Atlantic Park area, without prejudice to the creation of a future conservation unit in the area. Deadline: 4 months, from the signing of the TCA; ➤ Preparation and presentation of methodology for the execution of sediment removal and recovery of the area. Deadline: 6 months, from the signing of the TCA; and ➤ Implementation of the project of removal and recovery of the area. Deadline: as defined by the plan for the removal and recovery of the area approved by IEMA and SEMMAM. <ul style="list-style-type: none"> • Compensatory measures for environmental recovery through the implementation of actions for protection of the ecosystem and revitalization, with the following actions: <ul style="list-style-type: none"> ➤ Preparation of the implementation project of the Coastal Park in compliance with the proposal demand for a future use of the northern region of Camburi Beach to be recovered: <ul style="list-style-type: none"> ○ Definition of objective, scope and premises of the project by the Municipal Government of Vitória together with Vale. Deadline: 4 months, from the signing of the TCA; ○ Hiring, by Vale, of a company for the elaboration of the project. Deadline: to be defined by Vale; ○ Preparation and presentation of the project with executive schedule. Deadline: to be presented by Vale after completion of the item above; ○ Hiring of a company for the implementation of the work. Deadline: to be presented by Vale; and ○ Implementation of the work. Deadline: to be presented by Vale, after completion of the item above. ➤ Preparation of the project and implementation of the leisure area Zé da Bola Park: <ul style="list-style-type: none"> ○ Definition of objective, scope and premises of the project by the Municipal Government of Vitória together with Vale. Deadline: 4 months, from the signing of the TCA; ○ Hiring, by Vale, of a company for the elaboration of the project. Deadline: to be presented by Vale, after completion of the item above ○ Preparation of the project, with executive schedule. Deadline: to be presented by Vale, after completion of the item above ○ Hiring of a company for the implementation of the work. Deadline: to be presented by Vale after the conclusion of the item above; and ○ Implementation of the work. Deadline: to be presented by Vale after completion of the item above. ➤ Preparation of the project and implementation of the physical protection of the restinga vegetation of the shoreline of Camburi beach: <ul style="list-style-type: none"> ○ Definition of objective, scope and premises of the project by the Municipal Government of Vitória together with Vale. Deadline: 4 months, from the signing of the TCA; ○ Hiring, by Vale, of a company for the elaboration of the project. Deadline: to be presented by Vale after completion of the item above;
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	<ul style="list-style-type: none"> ○ Preparation of the project, with executive schedule. Deadline: to be presented by Vale after completion of the item above; ○ Hiring of a company for the implementation of the work. Deadline: to be presented by Vale after completion of the item above; and ○ Implementation of the work. Deadline: to be presented by Vale after completion of the item above. <ul style="list-style-type: none"> • Additional measures to environmental recovery, through the preparation of a technical cooperation agreement, with the following actions: <ul style="list-style-type: none"> ➤ Preparation of a technical cooperation agreement between Vale and SEMMAM to prepare the necessary studies for the recovery of the erosion of the southern portion of the Camburi beach. The studies will be funded by Vale. Deadline: 6 months, from the signing of the TCA. • Social mobilization, through the disclosure and promotion of the enterprise, so that, in a transparent way, actions are presented for the socio-environmental development of the region, as well as for mitigation of the environmental impacts caused by the works, with the following actions: <ul style="list-style-type: none"> ➤ Elaboration and presentation, for approval by the IEMA and SEMMAM, of the Communication Plan. Deadline: 3 months, from the signing of the TCA; and <p>Implementation of the Communication Plan. Deadline: 6 months, from the approval by IEMA and SEMMAM, and execution as defined by the communication plan to be approved.</p>
(e) Information on the actions adopted to comply with the obligations assumed in the agreement	VALE is making every effort to comply with the TCA and has been monitored by the Monitoring Committee made up of eight (08) members: a representative of the MPF, a representative of the MP/ES, a representative of SEMMAM, a representative of IEMA, a representative of Vale, a representative from the Jardim Camburi Residents' Association, a representative from the Jardim da Penha Residents' Association, and a representative from the Mata da Praia Residents' Association.
(f) Consequences in case of non-compliance	In case of non-compliance with its obligations, Vale shall be notified, within thirty (30) days, to remedy such non-compliance, under penalty of a compensatory daily fine of R\$ 5,000.00 (five thousand reais), per day of delay in the compliance with each obligation, amounts that will be allocated 50% (fifty percent) to the State Fund for the Environment ("FUNDEMA"), established by the State Complementary Law No. 513, of December 11 th , 2009, and 50% (fifty per cent) to the Municipal Environmental Fund ("FUNDAMBIENTAL"), established by the Municipal Law of Vitória no. 7,876, of January 12 th , 2010.

13) Consent Decree (TAC ICP TUCUMÃ/PA)

(a) Signatories	Vale S.A., MPPA and Association of Rural Producers Colônia Campos Nosso
(b) Date of the execution	December 18th, 2019.
(c) Description of the facts that led to the execution of the agreement	Public interest civil inquiry aimed at investigating alleged environmental and social damages caused to the remaining community of the Campos Altos Settlement Project, as a result of the implementation of the Onça Puma project.
(d) Obligations assumed by Vale and deadlines	(I) Install audit and submit report to the MP, referring to conclusions of Technical Analysis no. 384/2018-CATI/MP. DEADLINE: 90 days, counting from the awareness of the positive statement of INCRA provided for in the eighth clause (indicated in item "and" below).

	<p>(II) payment of R\$ 19,487,790.00 to members of the Association, as compensation for possession of wild land. DEADLINE: 60 days, from the awareness of the positive statement of INCRA provided for in item (e) below.</p> <p>(III) payment of indemnity for the improvements to the members of the Association, in the amounts contained in the Valuation Report for rural properties, also depending on the individual valuation of the properties. DEADLINE: 60 days, from the awareness of the positive statement of INCRA provided for in item (e) below.</p> <p>(IV) indemnity as compensation for any damages sustained, regardless of its nature, to members of the Association, in the amount of up to R\$ 3,050,000.00. DEADLINE: 60 days, from the awareness of the positive statement of INCRA provided for in item (e) below.</p> <p>(V) carry out negotiations with the Government, in order to build a Regional Hospital Unit. DEADLINE: 60 days, from the awareness of the positive statement of INCRA provided for in item (e) below.</p> <p>(VI) Additional payment for the improvements by VALE. DEADLINE: 60 days, from the presentation of the independent technical study.</p> <p>(VII) Perform monitoring of its atmospheric emissions; • Conduct a study with the environmental body to define benchmarks for the ferronickel industry in Pará. DEADLINE: 180 days from the date of issuance of the necessary environmental license to be issued by SEMAS/PA.</p> <p>(VIII) • Carry out representative characterization of the fine slag residue, and promote any adaptation; • Conduct an investigation of possible environmental liability in 07 areas of the project, remedying if necessary; • Identify alternatives for the disposal of waste (refining slag). DEADLINE: 365 days from the date of issuance of the necessary environmental license to be issued by SEMAS/PA.</p> <p>(IX) in relation to wood suppressed, pay a financial compensation to a nonprofit institution, to be defined between the parties, in the total amount of R\$ 369,225.42. DEADLINE: 180 days, from the awareness of the positive statement of INCRA provided for in item (e) below.</p>
(e) Information on the actions adopted to comply with the obligations assumed in the agreement	The effectiveness and validity of the instrument is conditioned to the express favorable statement of Incra, with retroactive efficacy to the date of signature of the TAC. The deadlines for fulfillment of the obligations will start to count from express awareness by Vale, with Incra consent.
(f) Consequences in case of non-compliance	Daily fine of R\$ 100 thousand, to be reverted to the State Environment Fund, after prior notice and deadline for issuance of statement.
(g) Update note	<p>In May 2020, MPPA filed a public interest civil action aimed at the annulment of the TAC, because the then signatory prosecutor did not have the assignment to sign the agreement (because the prosecutor was already responsible for another district), and due to jurisdiction (facts occurred in more than one municipality and there are issues of interest to the Federal Union).</p> <p>In August 2020, the TAC was suspended by court order.</p> <p>In September 2020, the MPPA Senior Board, instead of approving the filing of the public interest civil inquiry, ordered the return of the documents to Tucumã/PA, due</p>

	to the action aimed at cancelling the TAC. The outcome of action is expected.
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14) Commitment Agreement, COVID-19	
Source: Writ of Mandamus no. 0011029-43.2020.5.03.0000, arising from Public Interest Civil Action No. 0010170-96.2020.5.03.0171; PA´s PROMO 000762.2020.03.000-8, PA – PROMO 001089.2020.03.000-6 and PROMO 000059.2020.03.006-8.	
(a) Signatories	Vale S/A and Labor Prosecution Office
(b) Date of the execution	June 22nd, 2020 (Agreed Judgment of Itabira) September 24th, 2020 (Commitment Agreement, Minas Gerais) November 10th, 2020 (Commitment Agreement, National)
(c) Description of the facts that led to the execution of the agreement	1) Court of ACP by the Labor Prosecution Office, requiring the shutdown of the activities of the Itabira Complex, until the appropriate implementation of measures to combat and prevent the dissemination of COVID-19 in the work environment; 2) Drafting of the Interdiction Term of the Itabira Complex by SRT, until the appropriate implementation of measures to combat and prevent the dissemination of COVID-19 in the work environment; 3) Preliminary decision given by TRT in the case record of the writ of mandamus filed by the Labor Prosecution Office in the face of the decision given by the Judgment of the 2nd Labour Court of Itabira that authorized the resumption of the activities of the Itabira Complex; 4) Establishment of Administrative Procedure by the Labor Prosecution Office, aimed at verifying the adoption of measures to combat and prevent the dissemination of COVID-19 in the work environment in all VALE mining units in the State of Minas Gerais; 5) Establishment of Administrative Procedure by the Labor Prosecution Office, aimed at verifying the adoption of measures to combat and prevent the dissemination of COVID-19 in the work environment in all VALE mining units in Brazil;
(d) Assumed obligations and deadlines	ASSUMED OBLIGATIONS <ol style="list-style-type: none"> 1) Keep the measures provided for in the plan to prevent and combat coronavirus always updated and in accordance with the guidelines established by the competent public agencies (Federal, State and Municipal); 2) Grant leave, for a period of seven days, to the asymptomatic worker who, after undergoing a rapid test, presented the 1st positive result for IgM; 3) Grant leave to the worker who maintained contact with another worker who, after undergoing a rapid test, presented the 1st positive result for IgM, for a period of seven days, from the performance of the rapid test; 4) Hire a specialized company to prepare a single study, in order to subsidize the epidemiological study report; 5) Forward to the MPT report with technical analyses on an epidemiological study; 6) Promote clinical monitoring of workers away with 1st positive IgM result, through the program called Dr. PASA or by the local Health Department or by another program implemented by outsourced companies;

- 7) Require outsourced companies, which provide services in Mining Complexes located in the State of Minas Gerais, to adopt the same standard of clinical monitoring of workers away with the first positive result for IgM;
- 8) Maintain the procedures provided for in the daily check list and body temperature measurement;
- 9) Adopt effective work organization and displacement measures that prevent the agglomeration of people in the work environment (the measures are specified in the Commitment Agreement);
- 10) Consider as agglomeration the meeting of people, in face-to-face contact less than one meter and fifty centimeters (1.50 m) of each other, lasting more than fifteen (15) minutes, without prejudice to other standards of health and safety at work;
- 11) Maintain a minimum distance of one meter (1.00 m) between each worker during transport, and the maximum occupancy of fifty percent (50%) of the total number of seats should be observed. VALE is allowed to use blocking devices, physical barriers, capable of preventing physical contact between vehicle occupants and particle propagation;
- 12) Provide protective masks and implement guidance measures regarding the use, hygiene and replacement of masks every two hours of work;
- 13) Implement the measures contained in the PRO (Procedure for COVID-19 prevention and combat) for hygiene and disinfection of equipment and vehicles;

DEADLINE:

Itabira: Term conditioned to the maintenance of the declaration of pandemic condition of COVID-19 provided for in decree issued by the Municipality of Itabira.

Minas Gerais and National Scope: Obligations shall be in force for as long as the declaration of the pandemic condition by municipal rule, issued by the Municipality where there is the predominantly establishment of its essential activities of extraction and processing of iron ore, or activities carried out in the Dams in an emergency situation and downstream thereof, limited to the respective self-rescue areas, or the decree of State of Calamity due to the COVID-19 pandemic by the Government of the State of Minas Gerais , in any case, prevailing what occurs last.

(e) Information on the actions adopted to comply with the obligations assumed in the agreement	<ul style="list-style-type: none"> • Screening measures for workers' access; • Control measures in the work environment to avoid agglomeration and physical contact; • Control measures in transport to avoid agglomeration and physical contact; • Mechanisms for the communication and dissemination of measures to prevent and combat COVID-19; • Supply of protective masks and supervision as to their use and periodic replacement; • Availability of alcohol gel; • Disinfection of the work environment; • Follow-up and support to workers diagnosed with COVID-19; • Performance of rapid tests; • Preparation of epidemiological study
(f) Consequences in case of non-compliance	<p><u>Itabira:</u></p> <p>1) Fine of R\$ 200,000.00 (two hundred thousand reais) per item non-compliant with clause II.1, which provides for the main measures to prevent the dissemination of COVID-19 to be adopted by Vale;</p> <p>2) Fine of R\$ 100,000.00 (one hundred thousand reais) per item non-compliant with clause II.2, which provides for the additional measures to prevent the dissemination of COVID-19 to be adopted by Vale;</p> <p>3) Adoption of other measures by the MPT, aiming at promoting a new interdiction of the Complex.</p> <p><u>Minas Gerais and National Scope:</u></p> <p>1) Fine of R\$ 100,000.00 (one hundred thousand reais) per item non-compliant with clause II.1, which provides for the main measures to prevent the dissemination of COVID-19 to be adopted by Vale;</p> <p>2) Fine of R\$ 50,000.00 (fifty thousand reais) per item non-compliant with clause II.2, which provides for the additional measures to prevent the dissemination of COVID-19 to be adopted by Vale.</p> <p>3) Adoption of other measures by the MPT, aiming at promoting the interdiction of the Complex identified in a irregular situation.</p>

15) Agreed Judgment entered into in Case No. 5000430-27.2019.8.13.0400	
(a) Signatories	PUBLIC PROSECUTION OFFICE OF THE STATE OF MINAS GERAIS AND VALE S.A.
(b) Date of the execution	April 16th, 2019
(c) Description of the facts that led to the execution of the agreement	Due to the Vargem Grande Dam being raised to level 2 and emergency, part of BR 356 suffered interference through the implementation of a system "PARE E SIGA" (STOP AND FOLLOW) in compliance with the security plan approved by the Civil Defense. The interdiction increased displacement by alternative routes and brought other risks to the population.
(d) Assumed obligations and deadlines	Agreement signed and approved at a hearing for VALE (i) to reinstate the "assisted operation" system on BR 356 in case the risk level of the Vargem Grande Dam is increased to Level II or III, within 24 hours, depending on the urgency of the concrete case and orders/instructions from the Civil Defense and State Highway Police; (ii) perform improvement works in the public building of Posto 04 of the State Highway Police, in accordance with the demand/work plan to be presented by the State Highway Police to VALE, within the limit of R\$ 40,000; and (iii) implement the replacement of the stop-follow system by

	<p>assisted operation, by means of: (i) distribution of flyers on April 17th, 2019, from 12:00 p.m. to 8:00 p.m., on the assisted operation; (ii) radio programs throughout April 17th, 2019 and April 18th, 2019, on assisted operation; (iii) information on VALE's website about the assisted operation; (iv) theoretical training of assisted operation operators, on April 17th, 2019, in the morning shift; (v) practical training of operators and simulation of assisted operation, on April 17th, 2019; (vi) signs within Kms 37 and 40 of BR 356, pursuant to the presentation made by Imtraff at the hearing on April 16th, 2019, within 15 days; (vii) flexible cones between Kms 37 and 40, in order to discourage users from returning in the event of dam breach, within 45 days; and (viii) adopt all other guidelines contained in the presentation of Imtraff, provided that the approval of the competent public agencies is obtained.</p> <p><u>Deadlines:</u> The deadlines defined in the Commitment Agreement were of immediate compliance, which, at the time, were met. On the occasion of the emergency level increase of the dam to level 2, the deadline for VALE to resume the actions outlined in the document is 24 hours.</p>
(e) Information on the actions adopted to comply with the obligations assumed in the agreement	<p>The actions of the agreement were of immediate fulfillment for provision of information to the community and control of the traffic for a short period. By changing the emergency level of the dam, VALE is committed to resuming the flow of communication and traffic control. This no longer happened, as the dam remains at emergency level 1.</p>
(f) Consequences in case of non-compliance	<p>In case of non-compliance, VALE will be notified to remedy the irregularity in the shortest possible time. If the irregularity remains, a daily fine of R\$ 30,000.00 may be applied.</p>

4.8 – Rules of the country of origin and the country in which the securities are held in custody

Not applicable to the Company, considering that it is not a foreign issuer.

5. Risk management policy and internal controls

5.1 - Risk management policy and internal controls in relation to the risks indicated in item 4.1

a. If the Company has a formalized market risk management policy, highlighting, if so, the body that approved it and the date of its approval, and, if not, the reasons why the company did not adopt such policy

The Company believes that effective risk management is essential to support the achievement of its objectives and to guarantee the Company's financial strength and flexibility, and the continuity of its business. Thus, it developed its risk management strategy in order to provide an integrated view of the risks to which it is exposed.

The guidelines for the corporate risk management strategy are established in the Company's Risk Management Policy, originally approved by the Board of Directors on December 22, 2005 and amended on August 25, 2011, on September 27, 2018, on July 31, 2019, on November 26, 2019, on August 13, 2020 and on March 15, 2021, and available at <http://www.vale.com/esg/en/Pages/PoliciesAndCorporateDocuments.aspx>.

b. Risk management policy objectives and strategies, if any, including:

The Company's Risk Management Policy, which establishes the guidelines for the global integrated management of risks to which the Company is exposed, is based on the following principles and guidelines: (i) support strategic planning, budget and sustainability of Vale System's businesses; (ii) strengthen the capital structure and asset management of Vale System, insert the management concepts and criteria based on the risks of the operation, the maintenance of assets and logistics modalities; (iii) strengthen Vale's governance practices, based on the concept of lines of defense; (iv) Adopt the concepts of ISO 31000, ISO 55000 and COSO-ERM as a reference in risk management. For Operational Safety, adopt the RBPS (Risk Based Process Safety) as an operational safety management system; (v) measure and monitor the potential risks of Vale System on a consolidated basis, considering the effects of diversification, when applicable, of its business group; (vi) establish a specialized structure for dedicated and independent performance, such as the 2nd Specialist Defense Line, in the assessment of potential operational risks, including geotechnical risks; (vii) evaluate the reflexes on the map and risk tolerance of Vale System when deciding on new investments, acquisitions and divestments.

Based on the aforementioned policy and organizational structure of internal controls, the Company seeks protection from the main risks that may adversely and materially impact the objectives outlined by the Company's top management, its reputation, as well as its financial and operating results.

i. Risks for which protection is sought

Based on the aforementioned policy and organizational structure for Governance, Risk and Compliance, together with the business, project, support and administrative areas, the Company seeks protection for the main risks that may have an adverse and relevant impact on the objectives set by the Company's senior management, its reputation, as well as its financial and operating results, including those described in item 4.1 of this Reference Form, among which the following stand out:

- (i) risks that may impact the Company's operations, especially related to events, whether of force majeure or arising from the ordinary processes of the Company and its subsidiaries that may impact its production process and the use of installed capacity;

- (ii) risks associated with the Company's strategic decisions for the purpose of achieving its objectives and/or resulting from the Company's ability to protect itself or adapt to changes in the mining sector, especially related to the demand for its products, the Company's capital structure and operations in different markets;
- (iii) risks of legal or regulatory sanctions, legal proceedings against the Company and its subsidiaries, whose loss or application of penalties, may materially impact the Company, from a financial, operational point of view or cause damage to its image;
- (iv) risks of interruption of the project activities of the Company and its subsidiaries due to the failure to obtain or renew regulatory licenses, including, but not limited to, environmental licenses;
- (v) risk of increases in the costs of the Company's operations, due not only to market conditions but also due to legal and regulatory changes in the locations where the Company operates;
- (vi) risks associated with the lack of consistency and adequacy of the systems and control of the Company's operations and projects, including, but not limited to, information systems, as well as failures in the management of the Company's internal controls;
- (vii) risks associated with the safety of employees due to the performance of activities and tasks classified as critical and which, if not properly controlled, can lead to fatalities or changed lives. For each of them, critical controls (preventive and mitigating) are defined, capable of preventing the occurrence or mitigating the consequences if the risk materializes;
- (viii) risks associated with the occupational health of employees due to exposure to certain physical or chemical agents in the workplace. For each of these agents, review of processes, use of alternative technologies and engineering actions are provided, which, together with sampling and monitoring strategies, attest to their effectiveness before the relevant legal requirements;
- (ix) risks associated with process events and which, if materialized, imply catastrophic severity to people, the environment and facilities, such as, for example, geotechnical risks. For these types of risk, controls capable of modifying their probability of occurrence are identified and implemented, as well as those qualified to modify their consequences, which are periodically inspected through specific protocols.
- (x) risks associated with sustainability that may impact the Company's commitment regarding the adoption of a comprehensive approach to sustainability and safety, establishing a positive social, economic and environmental legacy in the regions where the Company operates (in addition to the commitments related to taxes, social projects already established in relation to Brumadinho reparation).

ii. Instruments used for protection

The Integrated Risk Map is a non-exhaustive instrument that contains the set of potential risk themes approved by the Board of Directors, on the recommendation of the Executive Board, which need to be evaluated and monitored in all Vale units in the different geographies of their operational, commercial, project, support and administrative areas. Such risk themes are set out in the Integrated Risk Map in categories, which include, but are not limited to People, Sustainability, Institutional Relations and Reputation, Strategic, Cyber, Financial, Planning and Operational, Geotechnical and Compliance Continuity.

Periodically, at least once a year or when requested, the themes of the Integrated Risk Map must be evaluated and validated by Vale's Board of Directors, on the recommendation of the Executive Board and Audit Committee, and can be maintained, revised, deleted or added.

The Risk Matrix contains the risk classification based on a combination of two factors: probability and severity of events. This combined analysis establishes a risk priority scale, with each event being classified as Very High, High, Medium or Low. Such method provides comparisons between the events of potential risk, allowing the prioritization for preventive treatment of risks

Vale has an integrated Risk Management Governance flow, based on the concept of Lines of Defense, which establishes how periodic reassessments are carried out in order to align strategic decisions, performance, definition and monitoring of the risk tolerance limits approved by the Board Directors, as recommended by the Executive Board.

As provided for in Vale's bylaws, the Board of Directors has, on a permanent basis, 07 (seven) advisory committees, hereinafter: Personnel, Compensation and Governance Committee, Operational Excellence and Risk Committee, Financial Committee, Audit Committee, Nomination Committee, Sustainability Committee and Innovation Committee. Two of these committees are active in risk management governance: the Audit Committee and the Operational Excellence and Risks Committee.

Additionally, on a non-permanent basis, Vale also has counted on the Independent Advisory Extraordinary Committees ("CIAE"). Especially in relation to the CIAE for Dam Safety, it is clarified that the Board of Directors decided on its creation, on January 27, 2019, due to the rupture of Dam I of the Córrego de Feijão Mine, with it being dedicated to advising the Board Directors on issues related to the diagnosis of safety conditions, management and mitigation of risks related to Vale's ore tailings dams, as well as recommending measures to be taken to reinforce their safety conditions - The Board of Directors renewed the contract of the members of the CIAE-SB, whose mandate extended until April 2021, when the committee was discontinued and the final report was issued and released and is available at <http://www.vale.com/brasil/en/investors/corporate-governance/notices-minutes-corporate-documents/pages/default.aspx>.

The main risks are monitored periodically, as well as the effectiveness of their critical prevention/mitigation controls and the execution of their treatment strategies. Thus, Vale seeks to have a clear view of its main risks, acting on them in a systematic way through the adoption of protection or mitigation measures, among which, for example:

- (i) definition of indicators and parameters for the purpose of monitoring risks;
- (ii) development and acquisition of technological solutions in accordance with information security requirements for the optimization of the Company's processes;
- (iii) training of employees of the Company active in the planning and execution of their projects;
- (iv) adoption of actions to improve efficiency in the licensing processes of its projects, such as (a) promoting greater integration between the environment and project development teams, (b) full compliance with environmental laws, demands and commitments, with emphasis on conditions (c) development and periodic review of tools and regulations in order to standardize processes and improve the quality of environmental deliveries, (d) qualification and training of teams, (e) incentive to greater interaction with environmental agencies and the establishment of trust relationships;

- (v) continuous improvement of the Company's health and safety management systems, as well as the continuous dissemination of information and prevention campaigns at the Company to improve the health and safety standards of employees;
- (vi) control and management of environmental liabilities at their units, as well as application of corrective measures to mitigate risks and eliminate environmental liabilities;
- (vii) preparation of environmental studies aimed at delimiting the extent of environmental degradation and the potential risks to health and the environment;
- (viii) choosing high-level partners and maintaining a fair relationship and long-term partnership with its principals, customers and partners in the Company's joint ventures. For information regarding the counterparty's credit risk control, see item 5.6 of this Reference Form;
- (ix) choice of suppliers who identify with our values and meet the requirements set out in the Supplier Code of Ethics and Conduct, in addition to conducting contracting processes in an integrated, transparent and ethical manner, respecting the company's rules and procedures and laws applicable to the process;
- (x) portfolio management composed of energy from its own generation plants, consortia and related companies, and long-term supply contracts, based on the current and expected energy needs of its operating units, in order to maximize cost competitiveness, environmental impacts reduction and safety in supply;
- (xi) emphasis on cost reduction, capital discipline, liability management, working capital management and divestments;
- (xii) in order to mitigate risks related to extraction, (a) ensuring the maintenance of the current mining rights that support operations and projects, (b) making investments in mineral exploration in order to reduce the risks inherent in the estimates of the reserves and contribute to a possible expansion or replacement of reserves consumed by current production;
- (xiii) systematic monitoring of changes in governmental and regulatory policies in the sector, in order to react quickly and adapt in a timely manner to these changes, as well as, when applicable, participate in discussions related to such changes through entities representing the mining sector in which it participates;
- (xiv) promoting its activities responsibly in all locations where it is present, aiming to respect communities and the environment;
- (xv) continuous monitoring of the Company's contingencies and lawsuits, making every effort to defend the lawsuits to which the Company and its subsidiaries are a party;
- (xvi) adoption, in crisis and disaster situations, of measures that include (a) emergency plans that contemplate immediate response to safeguard the people, assets and image of the Company, (b) definition of crisis response protocols and (c) alternative solutions defined by each operation to guarantee business continuity and agility in recovery to return to the normal productive flow of critical activities;
- (xvii) contracting insurance. For information on contracting insurance, see item 5.6 of this Reference Form.

The Risk Management Governance process, based on the Lines of Defense model, is structured as follow:

- The **1st Line of Defense** is composed of the executors of the Company's operational and business processes, being responsible for registering the risks identified in the entire chain of the operating model; for managing risks; for implementing the risk management controls and their respective action plans. It is formed by the owners of the risks, that is, those directly responsible for keeping the risks within the tolerance limits defined at Vale; by the owners of controls, responsible for the implementation of prevention and mitigation controls, which are assigned to them by the owner of the risks; and by the executors of the processes in the operational, commercial, project, support and administrative areas.

Among other functions, risk owners are primarily responsible for:

- operate and maintain the integrity and reliability of assets, developing and implementing the performance of assets, both in operations, projects, support and administrative activities. They have the duty to immediately stop the operation of the asset(s) in the case of critical deviation(s) or in cases of total unavailability of the critical control elements that move the risk to the risk priority level " Mandatory Risk Level Reduction ".
- proactively implement and execute any mitigation or elimination actions that they deems necessary, whether for the transfer, sharing or rejection of risks of the "Mandatory Risk Level Reduction" level.
- manage risks directly, identifying, assessing, treating, preventing and monitoring risks in an integrated manner.
- continuously assess the applicability of the risk themes of the Integrated Risk Map to the activities and geographies under their responsibility;
- monitor risk compliance in order to comply with external regulations, internal policies and standards;
- in the event of risks that present threats of materialization, the risk owner must immediately and proactively adopt the preventive and mitigating actions that they deem appropriate, without the need to obtain prior authorizations. Subsequently, if any support or ratification by levels higher than that observed in practice is necessary, the request must be sent to the corresponding body or position, according to the response governance established in the Strategy and Governance in Response to Risks Tables;
- establish and implement Crisis Management protocols and Business Continuity plans for the risks under their responsibility, classified as of Very Critical and Critical severity, and, for other risks, whenever applicable, and, for risks with Very Critical and Critical impacts, simulated tests should be carried out in order to verify the efficiency and effectiveness of the Crisis Management protocols. The periodicity of the simulations must be defined by the 1st line of defense according to the criticality, observing local rules and specificities of the legislation and, according to internal normative documents, always following the most restrictive period;
- meet the guidelines, technical and minimum management standards defined by the 2nd line of defense;

- periodically monitor the risk management indicators in order to manage the effectiveness of the controls and plans associated with the risks under their responsibility;
- evaluate corrective action plans, proposals for continuous improvement of controls and/or implementation of new controls suggested by control owners, aiming at the continuous improvement of risk management.

Among other functions, control owners are primarily responsible for:

- manage the prevention and mitigation controls assigned to them, always ensuring the accuracy and timeliness of the information and security of the process, in accordance with the applicable legislation, internal policies and standards, and seek the correction of the controls, in case of detection of any deficiency;
 - perform or review the control tests, respecting the frequency defined in the control;
 - inform the risk owner in case of deficiencies found in control verification tests, which may have an impact on risk prevention or mitigation, especially in the case of critical controls.
- The **2nd Line of Defense** (Enterprise Risk Management (ERM)) - Integrated Business Risk Management), which has the following main responsibilities:
 - develop and implement policies, methodologies, processes and infrastructure for integrated risk management;
 - support the work of the 1st Line of Defense, providing training and methodological instrumentation in the Business Risk Management model;
 - support and promote the exchange of knowledge and information, in order to disseminate the culture of management and risk prevention in the organization;
 - support and monitor compliance with the business risk governance model;
 - support external disclosure of official information regarding business risk management;
 - consolidate the deliberations of the Business Risk Executive Committees for submission to the Executive Board, as well as monitor the conclusion of the recommendations, and the 2nd Specialist Defense Lines are responsible for evaluating their technical effectiveness, when applicable.

The management of operational risk, which is the responsibility of the Executive Officer of Safety and Operational Excellence, corresponds to the performance as 2nd Specialist Defense Line on potential risks with impacts on the People dimension, and also on the potential geotechnical risks, whose responsibilities are:

- act as a technical axis in the definition of standards and standards for the management of Occupational Safety, industrial and geotechnics processes;
- act as a regulator and inspector in the management process of critical assets;
- maintain the integrated management system that ensures uniformity in the application of standards and good operational management practices.

- monitor and present the risks of operational processes with a level of Critical severity, in the forums indicated by the Operational Excellence and Risk Committee.

In addition to the responsibilities described above, the areas of the Executive Board of Safety and Operational Excellence have all the responsibilities assigned, as shown below, to the 2nd Specialist Defense Lines.

In addition to the Executive Board for Safety and Operational Excellence, which is the 2nd Line of Defense for Operational Risks, there are areas such as the Environment, Corporate Integrity, Social and Human Rights, not exhaustively, which should also act as the 2nd Specialist Line of Defense of the respective potential risks. All the Specialist 2nd Defense Lines have the following attributions:

- define methodologies, minimum technical, technological and management standards, risk and asset reliability indicators to be mandatorily adopted by the 1st Line of Defense;
- define methodology and technical criteria for the selection of critical control elements;
- perform independent checks (evaluation of effectiveness) of critical controls, related to relevant potential risks, performed by the 1st Line of Defense. In the exercise of their duties, if any deviation in the existing controls and barriers for risks with very high and high criticality is identified, it has the power to define immediate actions to be implemented by the 1st Line of Defense, being able to take the decision to stop the operation of the assets, when applicable;
- act as support to the 1st Line of Defense, through the assessment of the concepts adopted, checking if the risks have mapped controls and if the barriers implemented are the best in each situation related to relevant potential risks;
- support in the identification of risks, the need to implement additional controls and non-conformities of existing controls and issue recommendations, provide technical support in the implementation of the model and standards for the management and prevention of risks and assets;
- evaluate the application of standards and indicators by the operational, commercial, project, support and administrative areas (1st Line of Defense), with independence and transparency;
- list potential relevant risks in the specific Executive Committees, in case preventive action deliberations are required that require additional support.

The definition of which areas of the organization will act as the 2nd Specialist Defense Line is delegated to Vale's Executive Board.

- The **3rd line of defense** is made up of Internal Audit and the Whistleblower Channel, which are part of the Compliance Department, which also manages the Corporate Integrity area (2nd line of defense Specialist). The Compliance Department is totally independent from management, as it is an area that reports to Vale's Board of Directors and is supervised by the Audit Committee, which was installed in March 2020, with the election of its members and approval of its internal regulations. After the statutory reform of April 30, 2020, its composition and attributions started to be regulated in Vale's Bylaws, in order to comply with the rules of the Audit Committee regulated by CVM and the Novo Mercado Regulation, as well as the rules of Audit Committee applicable to Brazilian

companies with ADRs listed on the American market). The Internal Audit and the Whistleblower Channel carry out, subject to their respective areas of expertise, evaluations, inspections, through the execution of control tests and investigation of complaints, providing exempt assurance, including on the effectiveness of risk management and prevention, internal controls and compliance.

Among other functions, they are responsible for:

Internal Audit:

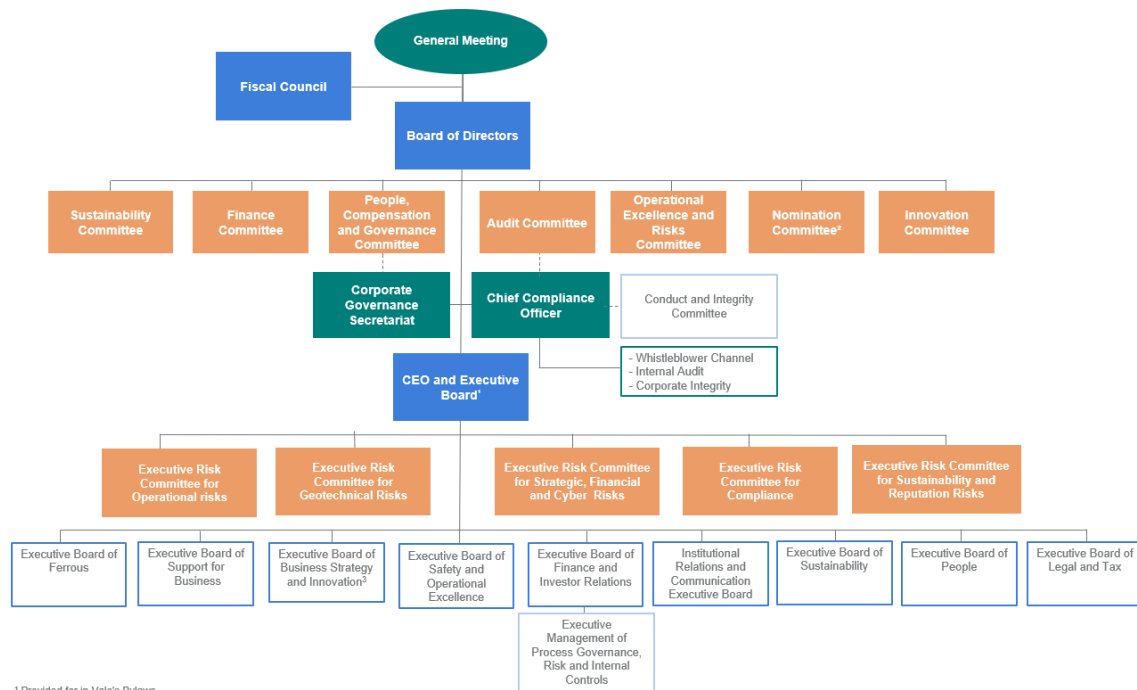
- Independent assessment of risk management, processes and internal controls, and compliance with internal laws and regulations, according to the annual work plan approved by the Board of Directors;
- Consulting and advisory services provided that they are intended to add value and improve the governance, risk management and control processes, without the internal auditor assuming responsibility inherent to the duties of the process owners and the 1st and 2nd Lines of Defense;
- Communication to responsible managers and competent governance bodies about exposure to significant risks and deficiencies in control.

Whistleblower Channel:

- Availability of a communication channel on violations of the Code of Conduct, which guarantees the anonymity of the whistleblower, ensuring control of the complaints received and their respective investigation;
- Verification of all complaints received, preparing reports used to justify the consequences measures, among other adjustments in the company's internal processes and controls;
- Systematic accountability on the progress of the complaints channel, its results and information, to the main governance bodies of the company, including the Conduct and Integrity Committee, the Audit Committee and the Board of Directors.

iii. Organizational risk management structure

The flowchart below shows the main bodies involved in Vale's risk management:



The main risks are monitored periodically, as well as the effectiveness of their key prevention/mitigation controls and the execution of their treatment strategies. Thus, Vale seeks to have a clear view of its main risks, acting on them in a systematic way through the adoption of protection or mitigation measures.

To this end, the Company has an operational structure for checking and monitoring the policy and internal controls.

- **Board of Directors.** The Board of Directors is the body responsible for approving Vale's risk policies, as well as the validation of the Integrated Risk Map. The Board of Directors has advisory committees that, in general, are responsible for supervising the scope and effectiveness of business risk management by the Executive Board, in line with the guidelines established by Vale's Board of Directors.
- **Executive Board:**
 - ✓ **Executive Board:** responsible, among other duties, for: providing, by means of human, financial and resources of any nature, through deliberations under its jurisdiction, the necessary support for the 1st and 2nd Lines of Defense to act in the reduction or elimination of risks classified in the Risk Matrix at the "Mandatory Risk Level Reduction" level and to ensure that the "Continuous Monitoring" level risks have effective controls and action plans.
 - ✓ **Compliance Board.** In 2020, Vale established a Compliance Board headed by the Compliance Officer ("CCO"), who reports directly to the Board of Directors and is supervised by the Audit Committee, ensuring autonomy and independence from other executive structures of the company. The creation of the Compliance Board and the appointment of the CCO is a further step towards meeting the recommendations made by the Independent Extraordinary Assessment Committee (CIAE-A) in the report released in February 2020, and adds other measures to strengthen the governance of

risk and security, such as the establishment of the Audit Committee and the adoption of the Registry Engineer. The CCO is responsible for supervising Corporate Integrity, Internal Audit and also the Whistleblower Channel. In 2020, the Compliance Board reinforced the internal audit activities with the creation of a team focused on technical and operational safety issues and restructured the functional activities of the areas of Corporate Integrity and the Whistleblower Channel, implementing new methodologies and protocols.

- ✓ **Executive Board of Safety and Operational Excellence - Operational Risk Management**, 2nd Line of Defense Specialist, according to responsibilities previously described.

- **Committees**. Vale has the following Committees, whose main duties and responsibilities within the organizational structure of risk management include:

- ✓ **Audit Committee**: The composition and duties of the Audit Committee are regulated in Vale's Bylaws, in order to comply with the rules of the Statutory Audit Committee regulated by CVM and the Novo Mercado Regulation, as well as the Audit Committee rules applicable to Brazilian companies with ADRs listed on the American market. The Audit Committee is responsible, among other duties (a) to supervise the internal audit activities, monitoring its independence, effectiveness and the sufficiency of the structure, as well as the quality and integrity of the internal audit processes, and proposing to the Board of Directors the actions that are necessary to improve them; (b) for the supervision of activities in the area of internal controls and controllership, responsible for the preparation of Vale's financial statements; (c) for the supervision of the procedures and channels to be used by the Company to receive, process and deal with complaints and information about (i) non-compliance with legal and regulatory provisions applicable to the Company, in addition to internal regulations and codes, (ii) accounting issues, (iii) internal controls, and (iv) audit matters, including provision for specific procedures to protect the whistleblower's identity and the confidentiality of the information, in compliance with applicable legislation. In addition, as provided for in its Internal Regulations, the main duties of the Audit Committee regarding risk management are: (d) to evaluate and discuss with the independent auditor (d.i) the accounting principles and criteria used in the financial statements; (d.ii) accounting for the main provisions, contingencies and disputes that may have an impact on the financial statements; (d.iii) the risk assessment methods and the main risks identified; and (d.iv) any changes in scope in the work of the independent audit and any relevant flaws and deficiencies identified in Vale's internal controls; (e) evaluate and monitor Vale's risk exposures; (f) evaluate and monitor Vale's integrated risk map, as well as the effectiveness and sufficiency of the risk control and management systems, and propose improvements in mitigation plans; (g) evaluate, monitor and recommend the correction or improvement of Vale's internal risk policies, including the Related Party Transactions Policy, as well as the adequacy of related party transactions carried out by Vale and the mechanisms to deal with conflicts of interest, under the terms of said Policy.

- ✓ **Advisory Committees to the Board of Directors**: as mentioned in item 5.1.b.ii of this Reference Form, comprise 07 (seven) Advisory Committees. For information on the main competencies of these Committees, including those related to risk management, see items 12.1 and 12.12 of this Reference Form.

- ✓ **Business Risk Executive Committees**¹: The Business Risk Executive Committees,

¹ The Executive Committees support the Executive Board, without acting as a 2nd Line of Defense.

created by Vale's Board of Directors, are divided into five (5) committees with a different scope of action: (i) Operational Risks, (ii) Geotechnical Risks, (iii) Strategic, Financial and Cybernetics Risks, (iv) Compliance Risks and (v) Sustainability, Institutional Relations and Reputation Risks. They are preventive actions and have the mission of supporting Vale's Executive Board in monitoring business risks and in the necessary deliberations of this collegiate body, in accordance with Vale's Risk Management Policy. The Business Risk Executive Committees, among other duties, must: support the 1st Line of Defense regarding additional requests for human, financial and other resources for the proper management and prevention of potential risks, and, in particular, for the reduction or elimination of risks classified as "Mandatory Risk Level Reduction", and the effectiveness of controls and the timeliness of action plans for risks of the "Continuous Monitoring" level; support Vale's Executive Board in the preventive monitoring of potential operational, cyber, geotechnical, strategic, financial and compliance risks, sustainability, institutional relations and reputation, people, planning and operational continuity and issue preventive recommendations regarding potential risks guided by the meetings of the aforementioned committees; evaluate and suggest, when necessary, changes in the business risk management strategy for subsequent approval by the Executive Board; offer the Executive Board a consolidated macro view of the exposure to potential risks of the Vale System in the categories of the Integrated Risk Map: People, Sustainability, Institutional Relations and Reputation, Strategic, Cyber, Financial, Operational, Operational, Geotechnical and Compliance Continuity, as the case may be, and support in the elaboration of the Multi-Annual Risk Management Investment Plan.

- **Fiscal Board**: established in accordance with Brazilian law and whose main responsibility of the Fiscal Council under Brazilian corporate law is to monitor management activities, analyze the Company's financial statements and report its findings to shareholders. For additional information, see item 12.1 of this Reference Form.
- **Executive Management of Process Governance, Business Risk and Internal Controls**: responsible for Enterprise Risk Management, according to responsibilities previously described.
- **Lines of Defense**: for more information on the attributions of the three lines of defense within the scope of the risk management process, see item 5.1.b. (ii) above.

The risk management rules and procedures complement the Risk Management Policy and define practices, processes, controls, roles and responsibilities in the Company with regard to risk management.

c. **Adequacy of the operational structure of internal controls to verify the effectiveness of the policy adopted**

In line with the Company's Risk Management Policy, Vale has an Executive Management of Process Governance, Business Risk and Internal Controls that assesses, during the SOX (Sarbanes-Oxley) Certification stages, the control environment at the entity level in order to ensure the risk management governance of Company's business. The focus of this assessment is to provide assurance regarding the reliability of the financial statements. In addition, Internal Audit also acts to verify compliance with the guidelines and rules of the company's normative documents.

5.2 - Description of the market risk management policy informed in item 4.2

a. If the Company has a formalized market risk management policy, highlighting, if so, the body that approved it and the date of its approval, and, if not, the reasons why the company did not adopt such policy

The Company's risk management is carried out in an integrated manner, in order to ensure that the general risk level of the Company remains aligned with its strategic guidelines.

Accordingly, the Risk Management Policy, originally approved by the Board of Directors on December 22, 2005, with subsequent changes, the last change being dated March 15, 2021, establishes guidelines that apply to the management of the set of risks to which the entities of the Vale System are exposed, and not specifically only to market risks. Among these guidelines the following stand out:

- Support the strategic planning, budget and sustainability of our business.
- Measure and monitor our potential risks on a consolidated basis, considering the effects of the diversification, when applicable, of our business group.
- Assess the effects on our risk and tolerance map when deciding on new investments, acquisitions and divestments.

In addition, the Company has a Derivative Use Policy, approved by the Board of Directors on November 26, 2019, which establishes guidelines and approval levels for contracting hedge operations for its exposure to market risk factors, among other provisions.

b. Risk management policy objectives and strategies

Based on its Risk Management Policy and risk governance structure, the Company seeks protection for the main risks that may have an adverse and relevant impact on the objectives set by the Company's top management, its reputation, as well as its financial and operational results.

i. The market risks for which protection is sought

The Company is exposed to several market risk factors that may impact its cash flow. In this regard and, as mentioned in item 4.2 of this Reference Form, considering the nature of the Company's business and operations, the main market risk factors to which it is exposed are:

- **exchange rates and interest rates:** the Company's cash flows are exposed to the volatility of various currencies in relation to the US dollar and to interest rates on loans and financing. Although most of the prices of its products are indexed in US dollars, most of its costs, expenses and investments are indexed in other currencies, mainly Reais and Canadian Dollars. The Company also had, on December 31, 2020, debt instruments and other liabilities linked to currencies other than the US dollar, mainly in Brazilian Reais and Euros, and liabilities linked to the Euro were settled in March 2021.

The Company's floating rate debt consists mainly of loans, including export prepayments, loans with commercial banks and multilateral organizations. In general, US Dollar floating rate debt is subject to changes in the Libor (London Interbank Offered Rate), with the end of publication scheduled for June 2023. The Company has been monitoring the authorities' pronouncements on the end of the publication of LIBOR and the evolution of discussions on the substitute rate, in order to be prepared for the transition.

- **product prices and input costs:** the Company is also exposed to market risks associated with volatility in commodity prices that may impact its revenue or costs.

ii. The equity protection strategy (hedge)

Periodically, an assessment is made of the potential impact on the Company's cash flow from exposure to the aforementioned market risk factors, to support the decision-making process in relation to the appropriate protection strategy, which may incorporate financial instruments, including derivatives. This assessment is carried out considering together the main market risk factors and their correlations, in order to take advantage of potential natural hedges.

When necessary, to adjust the Company's risk profile and reduce the volatility of its future cash flows, market risk mitigation strategies are evaluated and implemented in line with these objectives.

Several forms of mitigation can be used, such as:

- (i) financial operations through the use of derivatives for hedging purposes;
- (ii) committed credit lines guaranteeing liquidity;
- (iii) eventually, strategic decisions with the objective of reducing the cash flow risk.

Derivative portfolios are monitored on a consolidated basis on a monthly basis, allowing the Company to adequately assess financial results and their impact on cash flow and to ensure compatibility between the strategies implemented and the proposed objectives.

For more information, see item (iv) below.

iii. Instruments used for protection (hedge)

The financial instruments used for protection include predominantly forward transactions, swaps, futures and options.

The protection programs contracted by Vale and its objectives are as follows:

- Program for the protection of loans and financing in Reais indexed to the CDI: in order to reduce cash flow volatility, swap operations were carried out to convert the cash flow of debt indexed to the CDI in loan contracts to US Dollars and financing. In these operations, Vale pays fixed rates in US Dollars and receives remuneration in Reais linked to the CDI.
- Protection program for loans and financing in Reais indexed to TJLP: in order to reduce cash flow volatility, swap operations were carried out to convert the cash flow of debt indexed to TJLP into loan contracts into US Dollars with the BNDES. In these operations, Vale pays fixed and/or floating rates (Libor) in US Dollars and receives remuneration in Reais linked to the TJLP.
- Program for the protection of loans and financing in Reais at fixed rates: in order to reduce the volatility of cash flow, swap operations were carried out to convert the cash flow of debts denominated in Reais at fixed rates into US Dollars loan agreements with BNDES. In these operations, Vale pays fixed rates in US Dollars and receives fixed rates in Reais.
- Protection program for loans and financing in Reais indexed to the IPCA: in order to reduce cash flow volatility, swap operations were carried out to convert the cash flow of debt indexed to the IPCA into US Dollars. In these operations, Vale pays fixed rates in US Dollars and receives remuneration in Reais linked to the IPCA.
- Protection program for loans and financing in Euros: in order to reduce cash flow volatility, swap operations were carried out to convert the cash flow of debt in Euros into US dollars. In these operations, Vale receives fixed rates in Euros and pays remuneration linked to fixed rates in US Dollars. This program ended in March 2021.

- Protection program for operations to purchase nickel products: In order to reduce the risk of price mismatch between the period of purchase of nickel products (concentrate, cathode, sinter and other types) and the period of sale of the final product, protection operations were carried out. The items purchased are raw materials used in the refined nickel production process. The operations usually carried out in this case are sales of nickel for future settlement, either on the stock exchange (LME) or over the counter.
- Fixed price nickel sales program: in order to maintain the exposure of revenues to nickel price fluctuations, derivative transactions were carried out to convert nickel commercial contracts with customers who request pricing into a floating price. The operations aim to ensure that the prices related to these sales are equivalent to the average price of the London Metal Exchange (LME) at the time of physical delivery of the product to the customer. The operations usually carried out in this program are purchases of nickel for future settlement, either on the stock exchange (LME) or over the counter.
- Protection program for operations to purchase copper products: In order to reduce the risk of price mismatch between the period of purchase of copper products (scrap and others) and the period of sale of the final product, hedge operations were carried out. The scrap purchased is combined with other inputs to produce copper for end customers. In this case, the operations normally carried out are sales of copper with future settlement on the stock exchange (LME) or over-the-counter market.
- Nickel revenue share protection program: in order to reduce the volatility of its cash flow as a result of fluctuations in the nickel price, the Company implemented a Nickel Revenue Hedge Program. According to this program, hedge operations were carried out, through option contracts, to protect a portion of the projected volume of sales at floating prices, highly probable realization, guaranteeing prices above the average unit cost of nickel production and investments for protected volumes. This program was given hedge accounting treatment. The contracts are traded on the stock exchange (LME) or on the over-the-counter market.
- Palladium revenue share protection program: in order to reduce the volatility of its cash flow as a result of fluctuations in the price of palladium, the Company implemented a Palladium Revenue Hedge Program. According to this program, hedge operations were carried out, through futures and option contracts, to protect a portion of the projected volume of sales at floating prices, which is highly probable. This program was given hedge accounting treatment. The contracts are traded on the over-the-counter market.
- Protection program for the purchase of fuel oil for navigation: In order to reduce the impact of fluctuations in fuel oil prices when contracting/providing sea freight and, consequently, reducing the volatility of the Company's cash flow, hedge operations were carried out through options.
- Protection program for contracting maritime chartering: in order to reduce the impact of the maritime charter price volatility on the company's cash flow, protection operations were carried out through forward freight contracts called Forward Freight Agreements (FFAs). The protected item is a portion of Vale's cost linked to the spot price of maritime chartering.

Accounting policy for derivative financial instruments and hedge accounting

Derivative financial instruments are acknowledged in the balance sheet at fair value and gains or losses at fair value are recorded in the income for the year, unless they are designated as a hedge accounting program ("hedge accounting"), in accordance with the parameters established in IFRS 9 "Financial instruments: acknowledgement and measurement" (CPC 48, in Brazil).

In general, a hedge relationship is effective when a change in the fair value of the derivative is offset by an equal and opposite change in the fair value of the hedged item and effectiveness

tests are performed in order to assess the effectiveness and quantify the ineffectiveness of the relationship between the financial instrument and the protected item. At the beginning of hedge accounting operations, the Company documents the type of protection, the relationship between the protection instruments and the item to be protected, its risk management and the strategy for carrying out the program.

On the date of this Reference Form, the Company has a program designated as nickel and palladium cash flow hedge accounting, whereby the effective portion of changes in the fair value of derivatives designated and qualified as cash flow hedge is acknowledged in equity net, in the account "Equity valuation adjustments". The gain or loss related to the ineffective installment is immediately acknowledged in the income statement. When a hedge instrument expires or is sold, or when a hedge no longer meets the hedge accounting criteria, any accumulated gain or loss in equity at that time remains in equity and is acknowledged in the income statement when the transaction is acknowledged in the statement of income.

iv. Parameters used to manage these risks

With regard to market risks, it should be noted that the periodic monitoring and evaluation of the consolidated position of financial instruments used to mitigate Vale's market risks allows the monitoring of financial results and the impact on cash flow, as well as ensuring that objectives initially outlined are achieved. The calculation of the fair value of the positions is made available monthly for management monitoring.

The parameters used to check the qualification or disqualification of the Company's exposure are:

- (i) verification of the execution of the programs mentioned in item 5.2 (iii), above;
- (ii) analysis and constant monitoring of contracted volumes; and
- (iii) observance of the adequacy of maturity terms, considering their respective protection strategies, ensuring that there is no non-compliance with the Company's exposures. The mismatch between exposure and protection strategies can occur if:
 - a. the contracted protection volumes/values become higher than the respective exposure volumes/values;
 - b. the exposure for which protection was sought ceases to exist; or
 - c. there is a mismatch of maturities between the protection strategies and their respective exposures.

To avoid the potential non-compliance due to the provision in item "(iii) .a" above, the procedure adopted is the periodic monitoring of the volumes/values to be performed used as a basis for the proposal of protection strategies. In the case of protection for input prices, for example, if the updated consumption estimates point to a drop in volumes in relation to the initial estimates used for the proposal of protection strategies, the volumes of the protection strategy will be adjusted accordingly.

In order to avoid the potential non-compliance due to the provision in item "(iii) .b", if the exposure initially estimated does not materialize in the periodic monitoring, the protection strategy is terminated (unwind of the contracted positions).

As for the potential non-compliance due to the provision in item "(iii) .c", the alignment between the maturity of the contracted protection strategies and the maturity of the exposure initially estimated is constantly checked.

v. If the Company operates financial instruments with different equity protection objectives (hedge) and what are those objectives

- *Option related to Casa dos Ventos SPEs:* The Company has an option to purchase shares of special purpose companies Ventos de São Bento Energias Renováveis, Ventos São Galvão Energias Renováveis and Ventos de Santo Eloy Energias Renováveis (together, "SPEs Casa dos Ventos"), which comprise the wind farm of Folha Larga Sul project, in Campo Formoso, Bahia. This option was acquired in the context of the signing by the Company of contracts for the purchase and sale of electricity with Casa dos Ventos, supplied by the aforementioned wind farm.
- *Positions in embedded derivatives:* Vale's cash flow is also exposed to market risks associated with contracts that contain embedded derivatives. The embedded derivatives observed on December 31, 2020 are as follows: 1) contracts for the purchase of raw materials and nickel concentrate that contain price provisions based on the future price of copper and nickel; 2) purchase of gas by Companhia de Pelotização Vale Oman (LLC), with a premium clause in the gas price if the Company's iron ore pellets are traded above a pre-defined level; and 3) shareholding sale agreement entered into by the Company with a clause that establishes, under certain conditions, a guarantee of minimum return on the investment of the acquiring company.

vi. Organizational structure of market risk management control

Market risk management is carried out using the same organizational structure described in item 5.1 (b) (iii) above.

The approval of the hedge programs of the Company's exposure to market risk factors is the responsibility of the Board of Directors, or of the Executive Board, by delegation from the Board of Directors, according to the limits established in the Derivatives Use Policy mentioned in item 5.2 (a). The Executive Board, in turn, can delegate powers in the hierarchical line, within its scope of approval. The Financial Committee is kept informed about the approvals of new hedge programs decided by the Executive Board or by delegation from it.

In addition, it is worth mentioning that all operations involving derivatives are subject to prior risk assessment and approval by the competent authority, and the control of all these operations is centralized in the Company's Global Treasury and Corporate Finance Department.

c. Adequacy of the operational structure and internal controls to verify the effectiveness of the policy adopted

The monitoring and periodic assessment of the consolidated position of financial instruments used to mitigate Vale's market risks allows it to monitor the financial results and the impact on cash flow, as well as ensuring that the objectives initially set are achieved. The calculation of the fair value of the positions is made available monthly for management monitoring.

To this end, the Backoffice area, part of the Global Directorate of Treasury and Corporate Finance, monitors such financial instruments, having the responsibility of confirming the financial characteristics of the operations, as well as the counterparties with which the operations were carried out and reporting the fair value of the positions. This area also assesses whether the operations were carried out in accordance with internal approval.

In addition to this area, the Executive Management of Process Governance, Business Risk and Internal Controls acts to verify, during the SOX (Sarbanes-Oxley) Certification stages, the integrity of the controls that mitigate risks in the contracted operations within the governance criteria set out above. In addition, the Internal Audit area also acts to verify compliance with the guidelines and rules of the company's normative documents.

In accordance with the recommendations of regulatory bodies, on March 11, 2020, Vale installed an Audit Committee, which supervises the quality and integrity of financial reports, adherence to legal, statutory and regulatory standards, the adequacy of management-related process risk

management and the activities of internal and independent auditors. For the purpose of complying with the legislation issued by CVM, SEC and the Novo Mercado Regulation - B3, the Audit Committee started to exercise all of its duties at Vale from the statutory amendment approved at the Annual and Extraordinary Shareholders' Meetings held on April 30, 2020.

5.3 - In relation to the controls adopted by the issuer to ensure the preparation of reliable financial statements, indicate:

a. The main practices of internal controls and the degree of efficiency of such controls, indicating any imperfections and measures adopted to correct them.

Vale's management assessed, during the SOX (Sarbanes-Oxley) Certification stages, the effectiveness of the Company's internal controls related to the financial statements through processes developed to provide reasonable assurance regarding the reliability of the financial statements, in accordance with the criteria established in the Internal Control - Integrated framework - 2013 - issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

The internal control assessment process provides for joint action with the business areas to assess reporting risks, process mapping, assess their compliance with other policies and standards, as well as validate applicable controls aimed at mitigating risks that may affect the Company's ability to initiate, authorize, record, process and disclose material information in the financial statements.

In line with the Company's Risk Management Policy, the Executive Management of Process Governance, Business Risk and Internal Controls conducts, during the SOX (Sarbanes-Oxley) Certification stages, an assessment of the control environment at the entity level in order to ensure the Company's business risk management governance. The focus of this assessment is to provide assurance regarding the reliability of the financial statements.

The Company's management has not identified any material changes in its internal control over financial reporting that occurred during the fiscal year ended December 31, 2020 that materially affected or are likely to materially affect its internal control over financial reporting.

In addition, the Executive Management of Process Governance, Business Risk and Internal Controls interacts with the Internal Audit, the Audit Committee and the Whistleblower Channel, in order to capture any occurrences that may impact the financial statements.

At the end of the year, based on tests performed by Management, during the SOX (Sarbanes-Oxley) Certification stages, no significant deficiencies were identified in the execution of controls. Also, during the year, any flaws identified in the execution of controls are corrected through the application of action plans in order to ensure their correct execution at the end of the year and to avoid recurrences.

b. Organizational structures involved

The Company has an organizational structure of internal controls to ensure the preparation of reliable financial statements composed of the Executive Management of Process Governance, Business Risk and Internal Controls, subordinated to the Executive Board of Finance and Investor Relations with the respective monitoring of the Audit Committee. The process also includes the participation of the Internal Audit and the Whistleblower Channel, all subordinated to the Compliance Department, which reports to the Board of Directors and is overseen by the Audit Committee.

c. If and how the efficiency of internal controls is supervised by the issuer's management, indicating the position of the persons responsible for said monitoring

As part of the annual certification process for the internal control environment, Management promotes the review of all controls with the effective participation of all the Officers involved in the processes, and carries out validation tests aiming at the search for the effectiveness of the

controls.

At the end of the cycle, the executives responsible for the processes of all business areas and support areas of the Company, mapped in the controls and tests of adequacy to Sarbanes-Oxley, perform the electronic signature to support the assessment of the internal control environment as well the publication of the financial statements.

In addition, the Audit Committee oversees the internal controls assessment process carried out by Management and the independent auditors, through periodic meetings to present the results of the work of the Executive Management of Process Governance, Business Risk and Internal Controls and respective plans remedies established by those responsible for the processes.

d. Deficiencies and recommendations on internal controls present in the detailed report, prepared and forwarded to the Company by the independent auditor

Management assessed the effectiveness of Vale's internal controls related to the financial statements as of December 31, 2020 and concluded that the internal controls provide reasonable comfort in relation to the reliability of the financial reports and the preparation and elaboration of the consolidated financial statements, being considered effective. The internal control environment was audited by PricewaterhouseCoopers Auditores Independentes, an independent audit firm, and no significant deficiency was identified in its assessment.

e. Officers' comments on the deficiencies pointed out in the detailed report prepared by the independent auditor and on the corrective measures taken

The Company's Officers evaluated based on the relevance, probability and the possible magnitude of distortions reported by the independent auditor, and concluded that the action plans defined for such deficiencies are adequate for the correct implementation of the recommendations made by the auditors, observing that as described in item (d) above, no significant deficiencies were reported by the independent auditors.

5.4 - Regarding the internal integrity mechanisms and procedures adopted by the issuer to prevent, detect and remedy deviations, fraud, irregularities and illegal acts against public administration, national or foreign, inform:

a. if the issuer has rules, policies, procedures or practices aimed at preventing, detecting and remedying fraud and illicit acts against public administration, identifying, if positive:

i. the main integrity mechanisms and procedures adopted and their suitability to the profile and risks identified by the issuer, informing how often risks are reassessed and policies, procedures and practices are adapted

In 2020, the Compliance Board reinforced the internal audit activities with the creation of a team focused on technical and operational safety issues and restructured the functional activities of the areas of Corporate Integrity and the Whistleblower Channel, implementing new methodologies and protocols.

In March 2021, Vale launched the Ethics & Compliance Program, marking a new format in the management and training of issues related to ethics, conduct and the Whistleblower Channel. The Program has six important pillars: (1) Governance; (2) Guidelines; (3) Communication & Training; (4) Risks & Monitoring; (5) Whistleblower Channel; (6) Consequences Management.

Within the Guidelines pillar, the Compliance Department revised, in 2020, its Code of Conduct, approved by the Board of Directors on November 12, 2020. The Code of Conduct is now a more principled document, which connects directly with the purpose and values of the Company. The Code applies to Vale and its subsidiaries in Brazil or in other countries, its employees, managers, interns, suppliers and anyone acting on its behalf.

Vale's anti-corruption rules described in the Code of Conduct are also part of this pillar, the Global Anti-Corruption Policy and the Global Anti-Corruption Manual are also part of this pillar. Vale's Global Anti-Corruption Policy also underwent a review on December 9, 2020, approved by the Board of Directors. Vale has zero tolerance for corruption and prohibits bribery in all its forms (direct or indirect).

Vale's anti-corruption rules provide that:

- Socioenvironmental investments must be previously approved by Corporate Integrity using an internal tool and must have a contract with anti-corruption and liability clauses.
- Gifts, meals and entertainment involving government officials above a specific amount must be previously approved by Corporate Integrity through an internal tool, regardless of the amount, and gifts in cash or equivalent are prohibited at Vale.
- All suppliers, entities, associations or any third parties that receive funds from Vale, before being registered, must undergo due diligence, where a background check is carried out and the risk of corruption is defined. Anti-corruption clauses must be included in the contracts.
- The process of recruiting and selecting employees and leaders related to any government official must also be previously approved by Corporate Integrity.

The anti-corruption rules are in line with the best market practices and the anti-corruption laws applicable to Vale.

Another important pillar of the Ethics & Compliance Program is the Whistleblower Channel, which is operated by an independent company and is structured to guarantee confidentiality, protect the whistleblower's anonymity and protect the information for a fair investigation. The Whistleblower

Channel offers all the conditions for a report to be independently investigated, and prohibits breaches of confidentiality, intimidation or retaliation against whistleblowers.

Any violation of the Code of Conduct, policies and standards can be reported by anyone, including employees, contractors, suppliers, members of the affected communities and other interested parties, through the Whistleblower Channel.

Both the Code of Conduct and the Anti-Corruption Policy must be reviewed at least once every three years, or on demand.

ii. the organizational structures involved in monitoring the functioning and efficiency of the internal integrity mechanisms and procedures, indicating their attributions, whether their creation was formally approved, the bodies of the issuer to which they report, and the mechanisms to guarantee the independence of their officers, if existing

To guarantee its effectiveness, Vale's Ethics & Compliance Program ("Program") has a specific governance. The implementation, monitoring and compliance with the Program's rules, including those related to anti-corruption, are an absolute priority for Vale.

This Program is the responsibility of the Compliance Department, being approved by the Board of Directors and monitored by the Audit Committee and the Conduct and Integrity Committee. The Corporate Integrity area is the guardian of the Program, whose functions are, but are not limited to: (a) Maintenance of Vale's Ethics and Compliance Program, which includes the systematic updating of the Code of Conduct and other Vale's conduct guidelines, the communication grid and training on conduct and compliance issues, implementation and monitoring of compliance controls, periodic evaluations on the effectiveness of the program and its adherence to the main models adopted by the market and best practices suggested by the regulatory and supervisory bodies; (b) Support for the consequences deliberation process adopted by management and the Conduct and Integrity Committee in cases of conduct not in accordance with the Code of Conduct.

Among the duties and responsibilities of Vale's Conduct and Integrity Committee, the following stand out: (a) Supervise the application of Vale's Code of Conduct and related policies, procedures and guidelines (which collectively form the "Vale's Ethics and Compliance Program"); (b) Monitor and evaluate the effectiveness of Vale's Ethics and Compliance Program and propose enhancements; (c) Provide guidance to Corporate Integrity regarding the interpretation of the provisions and rules of Vale's Ethics and Compliance Program; (d) Support the Board of Directors in the evaluation and review of Vale's Consequences Management Policy; (e) Monitor investigations of alleged High Impact Misconduct conducted by the Whistleblower Channel; (f) Determine consequences management actions in accordance with the range of standard consequences set out in Vale's Consequences Management Policy for confirmed cases of High Impact Misconduct and other cases within the Committee's scope according to Art. 8 .; and (g) Report quarterly or, when necessary, at shorter intervals, to the Board of Directors the Committee's determinations on consequences management actions.

iii. if the issuer has a formally approved code of ethics or conduct, indicating:

- **whether it applies to all officers, tax advisers, directors and employees and whether it also covers third parties, such as suppliers, service providers, intermediaries and associates**

The Code of Conduct applies to Vale and its subsidiaries, in Brazil or in other countries, employees, administrators, interns, suppliers and anyone acting on behalf of Vale or its controlled companies. Additionally, Vale seeks to encourage the adoption of the principles of the Code of Conduct in all companies in which it has a shareholding.

- **whether and how often officers, tax advisers, directors and employees are trained in relation to the code of ethics or conduct and other rules related to the topic**

Training on ethics and integrity for the Company's top leadership is carried out on a biennial basis, the last of which took place in 2019. In the year in question, members of the Board of Directors, the Fiscal Council and the Executive Board of the Company participated in the educational activities.

The company's employees participate in a series of communication and training actions, which take place throughout the year and are part of the pillar "Communication & Training" of Vale's Ethics & Compliance Program, which aims to train all employees on how to overcome dilemmas and make the best decisions in an ethical and responsible manner. Communications, films, videos and training are just a few of these actions.

Vale develops an Annual Communications and Training Plan, which brings together the training actions planned for each of the stakeholders involved, on a global level, in order to reinforce the established standards of conduct and ethics.

Below are described some actions carried out in 2020:

- In the months of May and June, two webinars were held (one in Portuguese and one in English) on the role of company leaders in combating corruption in Covid-19 period.
- In July 2020, an educational video on Vale's anti-corruption rules was launched for all employees with access to a computer at Vale. This video was made available in 9 languages (Portuguese, English, Spanish, French, Arabic, Japanese, Mandarin, Indonesian Bahasa and Malay Bahasa), all with a knowledge test acquired at the end. This educational activity was completed by 79.16% of the employees (corresponding to 52,379 employees).
- In August, Vale launched a podcast on anti-corruption rules and also started a compliance approach with its suppliers.
- In October, the Company took action to discuss issues related to ethics and integrity: Action for Integrity, which has been taking place since 2015 at Vale. In this initiative, leaders receive a kit, consisting of a video and support materials, and must promote debates on ethical dilemmas with their respective teams. The 2020 edition brought together 79,537 participants, including employees and third parties, which is equivalent to 83.41% of employees' adherence.
- Between November and December, a survey was conducted to understand the maturity level of the compliance issue at Vale.
- On December 9, 2020, due to the International Anti-Corruption Day, a series of initiatives were carried out for both the internal and external audiences. Among the internal actions, the following stand out: (1) Communication sent by Vale's Executive Board and by the Compliance Board to all Vale employees, globally; (2) Message sent by an application used by the company (Teams) to all Vale employees, globally; (3) Communication sent to all supply employees. Among the actions taken for the external public on the International Anti-Corruption Day, the following stand out: (1) Communication sent to the active base of suppliers in Brazil; (2) News published on the company's website in Brazil (www.vale.com/fornecedores) and global (www.vale.com/suppliers); (3) Banners published on the ESG Portal (www.vale.com/esg); (4) Banners published on Vale's website.

As part of this action on the International Anti-Corruption Day, an educational video was also produced for suppliers, available in Portuguese with sign language and in English, and subtitles for six other languages: Spanish, Arabic, Mandarin, Indonesian Bahasa, Malaysian Bahasa and Japanese.

- In the last quarter of the year, training sessions were held on anti-corruption rules for employees classified as priority, a classification made based on the level of exposure of such employees to the risk of corruption. These employees belong to areas such as Human Resources, Procurement, Sustainability, Reparation, among others. Traditionally, training for this group was carried out in person, but since 2020, they have taken place virtually, due to the pandemic scenario. Specific materials are developed for these training sessions, considering the areas of activity of such employees. Of the 1,769 employees mapped to be trained in 2020, Corporate Integrity conducted training for 1,603 employees, which corresponds to 90%.
- Also in the last quarter of 2020, a campaign was carried out to map possible conflicts of interest at Vale. To help employees understand what a conflict of interest is, an educational video on the topic was produced in 8 languages: Portuguese, English, Spanish, Arabic, Japanese, Mandarin, Indonesian Bahasa and Malay Bahasa.

For all educational actions, the participation of employees in training is attested by the registration on the attendance list, access control on the educational platform, among others.

The 2021 communication and training plan is already in its execution phase, having started with the global launch event of Vale's Ethics & Compliance Program, held on March 10, 2021, when the new Code of Conduct was officially released. The Chairman of the Board of Directors, the Chief Executive Officer and Vale's Compliance Officer were present at the launch event.

- **the sanctions applicable in the event of violation of the code or other rules related to the subject, identifying the document where these sanctions are provided for**

The sanctions are provided for in Vale's Code of Conduct. Any employee or manager who violates the principles of the Code and other Vale policies and rules is subject to the disciplinary measures below, which will be applied in accordance with local laws and the severity of the violation:

- warning;
- training;
- suspension;
- dismissal;
- other legal provisions.

- **body that approved the code, date of approval and, if the issuer discloses the code of conduct, locations on the world wide web where the document can be consulted**

Vale's Code of Conduct is a document that gathers the fundamental principles that support the Company's purpose. It is part of Vale's Ethics & Compliance Program, which is monitored by the Audit Committee, the Conduct and Integrity Committee and the Compliance Department.

A new version of the Code of Conduct was approved on November 12, 2020 by Vale's Board of Directors.

The Code of Conduct is available on the Company's website: <http://www.vale.com/brasil/EN/aboutvale/ethics-and-conduct-office/code-of-ethics/Pages/default.aspx> in 9 languages, and also has audiobook versions in Portuguese, English and Spanish, as well as on the CVM website (www.gov.br/cvm).

B. if the issuer has a reporting channel, indicating, if so:

- **whether the reporting channel is internal or whether it is in charge of third parties**

Vale has a Whistleblower Channel (formerly known as the Ethics and Ombudsman Channel), available to anyone who violates the ethical principles contained in Vale's Code of Conduct. The Channel is operated by an independent company.

- **whether the channel is open for receiving complaints from third parties or if it receives complaints only from employees**

The channel is available to anyone wishing to make a report, including employees, contractors, suppliers, members of affected communities and other interested parties.

- **whether there are mechanisms for anonymity and protection for whistleblowers**

As provided for in the Code of Conduct, under no circumstances will there be breach of confidentiality, intimidation or retaliation against the whistleblower. In addition, the Whistleblower Channel is structured to guarantee absolute secrecy, protecting the whistleblower's anonymity and preserving the information so that a fair investigation can take place. The Whistleblower Channel guarantees all conditions for a report to be independently verified.

- **issuer's body responsible for investigating complaints**

The person in charge of the Whistleblower Channel area centralizes the investigation of complaints and, when necessary, uses the support of other lines of Defense of the Company for a timely investigation. In turn, the person responsible for the Whistleblower Channel reports directly to the Compliance Officer, who is supervised by the Audit Committee and is hierarchically subordinate to the Board of Directors.

The Whistleblower Channel issues periodic executive summaries of the results of each assessment included in the scope of the Channel shared with the Conduct and Integrity Committee, the Audit Committee (installed in March 2020), the Board of Directors and the Fiscal Board, recording the evidence obtained for the reported situations, as well as the appropriate actions for resolving the irregularities. The main data related to the Whistleblower Channel are available at www.vale.com/esg.

c. whether the issuer adopts procedures in mergers, acquisitions and corporate restructuring processes aimed at identifying vulnerabilities and the risk of irregular practices in the legal entities involved

All parties involved in a joint venture, consortium, association or any other business combination with any third party (such as mergers or acquisitions) must first undergo due diligence, including aspects of corruption, to ensure that the terms and business conditions will not result in - or cause - a material risk of violating applicable anti-corruption laws.

d. if the issuer does not have rules, policies, procedures or practices aimed at preventing, detecting and remedying fraud and illicit acts against public administration, identify the reasons why the issuer has not adopted controls in this regard.

Not applicable, considering that the Company has procedures for this, as described in this item 5.

5.5 - Significant changes in the main risks to which the Company is exposed or in the risk management policy adopted, commenting on any expectations of a reduction or increase in the Company's exposure to such risks

COVID-19

In order to minimize the impacts caused by COVID-19, the company has taken measures and implemented policies to protect its employees, businesses and communities around its operations against the threats posed by the COVID-19 pandemic. For more information on potential impacts of COVID on the Company, see items 7.9 and 10.3 (c) of this Reference Form.

LIBOR

The Company has been monitoring the authorities' pronouncements and the evolution of discussions on the substitute rate, in order to be prepared for the transition. Any adjustments to contracts and systems that may be required in the process are being mapped and will be addressed in due course. For more information, see item 4.2 of this Reference Form.

Risk Management Policy

The Risk Management Policy was reviewed by the Board of Directors on March 15, 2021. This policy is public and is available on the institutional website, available at <http://www.vale.com/esg/en/Pages/PoliciesAndCorporateDocuments.aspx>, details Vale's governance structure, based on the Lines of Defense model, detailing its roles and responsibilities, and the instruments used for risk management, such as the Map and Matrix of Risks.

5.6 - Other relevant information

An integrated structure was developed to manage the risks to which the Company is exposed, in order to support the achievement of its objectives, financial strength and flexibility and business continuity. The risk management strategy considers the impact on the Company's business of market risk factors (market risk), risks associated with inadequate or failed internal processes, people, systems or external events (operational risk), risks arising from obligations of third parties (credit risk), risks of exposure to legal fines, fines or losses of reputation associated with failure to act in accordance with applicable laws and regulations, internal policies or best practices (compliance risk) and risks associated with the credit, business, governance and political and regulatory conditions model in the countries in which Vale operates (strategic risk), among others.

Operational Risk

Operational risk management is a structured approach to manage uncertainties related to internal processes, people and systems and external events. Internal events consist of inadequate or failed internal processes, people and systems, while external events include natural and operational catastrophes caused by third parties.

We reduced operational risk by implementing new controls, improving existing ones and monitoring their effectiveness. Response plans include high-risk scenarios and identify the resources needed to mitigate impacts. It seeks to have a clear view of the main risks to which it is exposed, the cost-benefit of mitigation plans and the controls implemented to closely monitor the impact of operational risks and allocate capital efficiently to reduce them.

Geotechnical Risk

The management of geotechnical risks is the structured approach that Vale adopts to manage, in particular, the risks of rupture of dams, embankments and ore piles with the potential to cause fatalities, impacts on the community, on the environment and/or interrupt its activities, which are very significant for its business. Geotechnical risks are continuously monitored and properly integrated into Vale's corporate risk management. Vale is working on improving its tailings management practices, through the implementation of the Tailings and Dams Management System ("TDMS"). This system is based on the adoption of several layers of protection, including the three internal and external lines of defense such as the Registry Engineer ("EoR").

Planning and Operational Continuity Risk

Planning and Operational continuity risks include risks that can paralyze operations, such as unavailability of critical and local resources for disposal of tailings, risks of not obtaining or not renewing licenses, concessions and mining rights, logistical risks and risks of availability and quality of reserves.

Cyber Risk

Cyber risk management is the approach taken to manage information security risks, such as information theft and leakage, unavailability of technology assets and compromised data integrity. The increase in the threat scenario is a natural trend in Vale's industry and the evolving risks in this space come from a variety of cyber threat actors, such as nation states, *cyber criminals*, *hacktivists* and *insiders*. Vale experiences threats to the security of its information, but none of them had an impact on its business in 2020.

The Company employs several measures to manage this risk in order to protect, detect and respond to cyber events, including information security policies and standards, security protection technologies, threat detection and monitoring, in addition to testing response and recovery

procedures. To encourage vigilance among its employees, a culture of cybersecurity awareness has been created within the organization through a training program that covers topics such as email phishing, information classification and other information security best practices.

Credit Risk

Vale is exposed to credit risks arising from transactions receivable, transactions with derivatives, guarantees, payment of down payment to suppliers and investments in kind. Vale's credit risk management processes provide a framework for assessing and managing the credit risk of counterparties and maintaining the Company's risk at an acceptable level.

Vale assigns an internal credit rating and credit limit for each counterparty using its own quantitative methodology for credit risk analysis, which is based on market prices, external credit ratings and financial information of the counterparty, as well as qualitative information in relation to the strategic position and the history of commercial relations of the counterparties.

Based on the credit risk of counterparties, risk mitigation strategies can be used to manage the Company's credit risks. The main credit risk mitigation strategies include discounting accounts receivable without guarantees, insurance instruments, letters of credit, corporate and bank guarantees, mortgages, among others.

From a geographical point of view, Vale has a diversified portfolio of accounts receivable, with Asia, Europe and Brazil, regions with more significant exposure. Depending on the region, different guarantees can be used to increase the credit quality of receivables. The Company periodically monitors the exposure of counterparties in the portfolio and blocks additional sales to customers in default.

To manage the credit exposure arising from financial investments and derivative instruments, credit limits are approved for each counterparty with which the Company has credit exposure. Vale controls the diversification of the portfolio and monitors different solvency and liquidity indicators of its different counterparties that have been released for trading.

Compliance Risks

Anti-Corruption Risk

As part of Vale's Ethics & Compliance Program, the Company has anti-corruption rules that are defined in the Code of Conduct, in the Global Anti-Corruption Policy and in the Global Anti-Corruption Manual. The program, which is under the responsibility of the Compliance Department, states that Vale has zero tolerance for corruption and prohibits bribery in all its forms (direct or indirect).

For information on anti-corruption rules, see item 5.4 (a) (i).

Strategic risk

Strategic risk comprises governance, business model, environmental matters, regulatory, political, economic or social actions taken by governments or other stakeholders.

Insurance

Vale contracts various types of insurance policies, such as: operational risk insurance, engineering risk insurance (projects), credit risk insurance, civil liability, life insurance for its employees, among others. The coverage of these policies, similar to those used by large companies in the mining industry, are contracted according to the objectives defined by the Company, the corporate risk management practice and the limitations imposed by the global insurance and reinsurance markets. Insurance management is carried out with the multidisciplinary support of

the Company's operational areas. Among its insurance management instruments, Vale can use a captive reinsurer that allows the retention of part of the risk, the contracting of insurance on a competitive basis, as well as direct access to the main international insurance and reinsurance markets and diversification of counterparties.

Information about internal and external allegations regarding the Code of Conduct and the improvements made as a result of complaints

In 2020, the Whistleblower Channel (formerly known as the Ethics and Ombudsman Channel) received 4,670 allegations and closed 4,562 cases, of which (i) 284 refer to complaints that were not investigated due to lack of information or relevance to the scope of the Whistleblower Channel, (ii) 121 were consultations, which were answered by the Whistleblower Channel, but did not give rise to an investigation; and (iii) 4,157 led to investigations, which confirmed violations of Vale's Code of Conduct in 36% of cases. All confirmed violations triggered correction plans. As a general rule, these plans contain measures to promote improvements in the process, training initiatives and feedback for employees. Depending on the severity of the allegations, the employees involved may be subject to administrative measures, such as warnings, training, suspensions, dismissal or other legal measures. Suppliers involved in serious violations of the Code of Conduct are also subject to punitive measures, such as fines or contract termination. The investigations by the Whistleblower Channel in 2020 resulted in 2,261 corrective actions, including the dismissal of 181 employees.

6. Issuer History

6.1 / 6.2 / 6.4 - Issuer's organization, duration and date of registration with the CVM

Date of Issuer Organization	January 11, 1943
Form of Issuer Organization	Government-controlled private company
Country of Organization	Brazil
Duration	Indefinite Duration
Date of CVM Registration	January 02, 1970

6.3 - Brief history

Vale was founded by the Brazilian Federal Government (Brazilian Government) on June 1, 1942, through Decree-Law No. 4,352, and definitively on January 11, 1943, by the Definite Meeting for the Formation of the Corporation Companhia Vale do Rio Doce S.A., in the form of a government-controlled company, with the purpose of exploiting, trading, transporting and exporting iron ore from Itabira mines, and exploiting the traffic of the Vitória-Minas Railroad (EFVM), carrying iron ore and agricultural products from Vale do Rio Doce, in the Southeast region of Brazil, to the port of Vitória, located in the State of Espírito Santo.

When the existence of iron ore in Carajás was found, Decree No. 77,608, dated May 13, 1976, granted to Vale a concession for the construction, use and exploitation of the railroad between Carajás and São Luís, in the States of Pará and Maranhão, respectively. In 1979, the implementation of the Ferro Carajás Project began, and in February 1985 the Estrada de Ferro Carajás ("EFC") and the Ferro Carajás Project were inaugurated, with the Company's production being classified into two distinct logistic systems (North and South).

The Company's privatization process began in 1997. Pursuant to Call to Privatize PND-A-01/97/CVRD (Call Notice) and the Resolution of the National Privatization Council – CND No. 2, dated March 5, 1997, the Special Shareholders' Meeting approved, on April 18, 1997, the issuance of 388,559,056 participating debentures, not convertible into shares (Participating Debentures), in order to guarantee to pre-privatization shareholders, including the Federal Government, the right to participate in the revenue of the mineral deposits of Vale and its subsidiaries, not valued for purposes of setting the minimum price of the Vale privatization auction. The Participating Debentures were attributed to Vale shareholders as payment for the redemption value of class "B" preferred shares, issued as bonus, in the proportion of one share held by the holders of class "A" common and preferred shares, at the time, through partial capitalization of Vale's profit reserves. The Participating Debentures could only be traded after prior authorization from the Brazilian Securities and Exchange Commission ("CVM"), as of 3 months from the completion of the Secondary Public Offering of Shares foreseen in the privatization process.

On May 6, 1997, the privatization auction was conducted, when the Brazilian Government sold 104,318,070 common shares issued by Vale, equivalent to 41.73% of the voting capital, to Valepar S.A. (Valepar), for the amount of approximately R\$ 3.3 billion.

Subsequently, pursuant to the Call Notice, the Brazilian Government also sold 11,120,919 common shares representing approximately 4.5% of the outstanding common shares and 8,744,308 class "A" preferred shares, representing 6.3% of outstanding class "A" preferred shares, through an offering restricted to Vale employees.

On March 20, 2002, a Secondary Public Offering of Shares issued by Vale was carried out, in which the Brazilian Government and the Brazilian Development Bank ("BNDES") sold, each one, 34,255,582 common shares issued by Vale. The demand by investors in Brazil and abroad was substantial, surpassing the offer by approximately three times, which led to the sale of the entire lot of 68,511,164 shares. A portion of approximately 50.2% was placed on the Brazilian market and the remainder was sold to foreign investors. Subsequently, on October 4, 2002, the

competent registration of Participating Debentures was obtained from the CVM, allowing their trading in the secondary market.

In June 2000, the American Depositary Receipts ("ADRs"), representing preferred shares issued by the Company, started to be traded on the New York Stock Exchange ("NYSE"), and, in 2002, the Company's securities are now effectively traded on the NYSE, whose program was launched in March 1994. That same year, Vale is also listed on the Madrid Stock Exchange – Latibex.

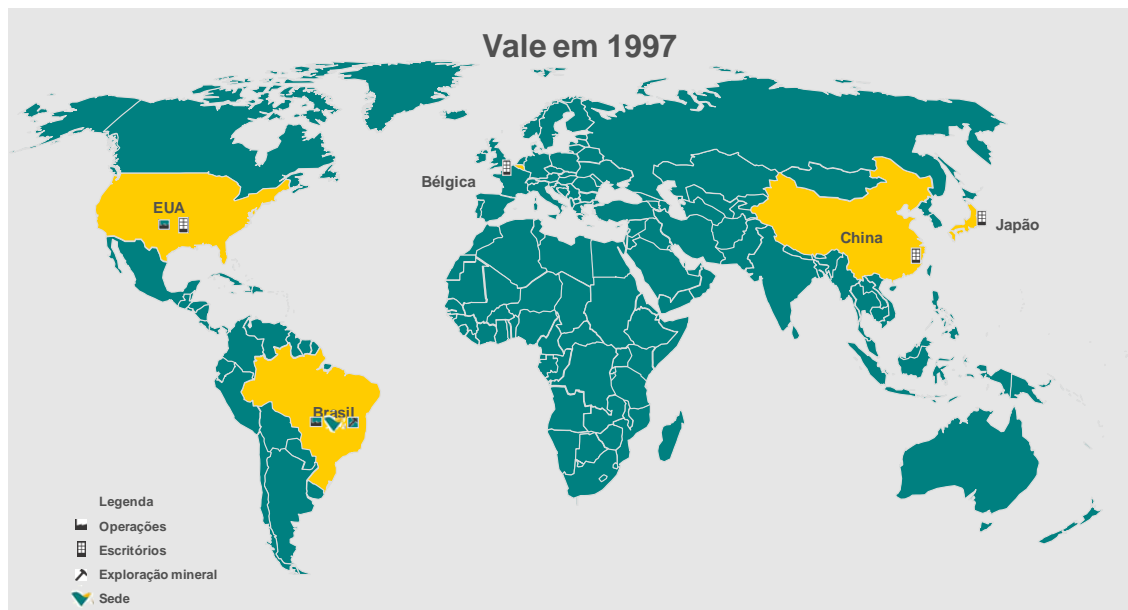
In December 2003, Vale joins Level 1 of the Differentiated Corporate Governance Practices Program established by B3 S.A. – Brasil, Bolsa e Balcão ("B3"), new corporate name of BM&FBOVESPA.

In 2008, Vale was listed on Euronext Paris S.A., where it remained until 2019.

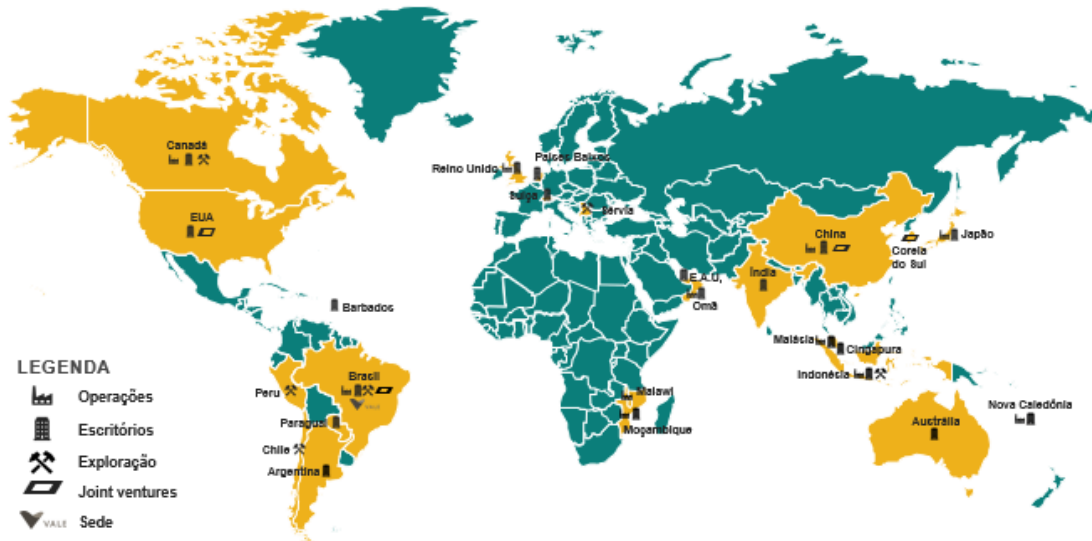
- In 2010, Vale listed Depositary Receipts representing its Class A common and preferred shares (HDRs) at the Stock Exchange of Hong Kong Limited (HKEx). The HDRs started to be traded on December 8, 2010 and remained until 2016.

In 2017, all the class "A" preferred shares issued by Vale were converted into common shares, at the ratio of 0.9342 common share to each class "A" preferred share.

As of December 22, 2017, the common shares issued by the Company started to be traded on the Novo Mercado Segment of B3 S.A. – Brasil, Bolsa, Balcão.



Vale in 2020



Please find below the most striking events described in the history of the Company in recent years:

2015-2021

- On November 5, 2015, one of the Samarco's iron ore tailings dams (Fundão) located in the Germano Mining Complex in the city of Mariana, State of Minas Gerais, collapsed, causing social and environmental impacts. As a consequence of the collapse of the dam, Samarco's operations in Germano/Alegria (Mariana Complex) were temporarily suspended by government agencies. For further information on dam collapse and its impacts, see items 4, 7.9, 10.1 of this Reference Form.

- In February 19, 2017, Litel Participações S.A., Litela Participações S.A., Bradespar S.A., Mitsui & Co, Ltd. and BNDESPAR entered into a new Valepar Shareholders' Agreement, effective as of May 10, 1997, that is, after the expiration of the Valepar Shareholders' Agreement signed on May 24, 1997. In addition to the common rules regarding voting and preemptive rights in the acquisition of shares of the signatory shareholders, the new Shareholders' Agreement provided for the submittal by said shareholders of a proposal to the Company with the purpose of enabling Vale's listing on the special segment of Novo Mercado at B3 and transforming it into a company without defined control.

- On June 27, 2017, the Special Shareholders' Meeting approved the proposal submitted by Valepar on May 11, 2017 for the corporate restructuring of the Company, as well as changes in corporate governance, with the purpose of transforming Vale into a company without defined control and make its listing possible on the special segment of B3's Novo Mercado ("Corporate Restructuring"). Such restructuring became effective as of August 14, 2017, upon the (i) the merger of Valepar into Vale, approved at Valepar's Special Shareholders' Meeting held on August 14, 2017, and (ii) the acceptance of 84.4% of Class A preferred shares from voluntary conversion into common shares.

- On August 14, 2017, Litel Participações S.A., Bradespar S.A., Mitsui & Co., Ltd. and BNDES Participações S.A. – BNDESPAR entered into Vale's Shareholders' Agreement, with no provision for renewal, which was adhered to by Litela Participações S.A. on September 9, 2019, in order to provide stability to the Company and adjust its corporate governance structure during the transition period to become a dispersed-ownership company. The agreement ended on November 9, 2020.

- On October 18, 2017, the Special Shareholders' Meeting and the Special Preferred Shareholders' Meeting approve the conversion of all of the class "A" preferred shares issued by Vale at a ratio of 0.9342 common share to each class "A" preferred share, the same ratio applied in the voluntary conversion completed in August 2017 ("Conversion of the Remaining Shares").
- On November 17, 2017, Vale enters into a share purchase agreement with Yara International ASA for the sale of its wholly-owned subsidiary, Vale Cubatão Fertilizantes Ltda., which owns and operates the nitrogen and phosphate assets located in Cubatão, Brazil. The operation is completed on May 15, 2018, and Vale and its subsidiaries received US\$ 255 million in cash.
- On November 27, 2017, entities from the Nacala Logistics Corridor (CLN) signed agreements for project finance in the total amount of US\$ 2.730 billion. The transaction was closed in February 2018, and Vale received funds from the project finance in March 2018. Vale received US\$ 2.6 billion in funds as a payment for certain loans from shareholders to build the CLN, net of some commissions paid by CLN. The project finance is to be amortized in 14 years with the financial resources obtained from the fee charged by the CLN in relation to the provisions of coal transportation services and cargo services in general.
- On November 27, 2017, and as a result of the Conversion of the Remaining Shares, all shares issued by Vale traded on B3 became common shares, and American Depositary Shares representing class "A" preferred shares ("Preferred ADSs") are no longer traded on the NYSE.
- On December 18, 2017, the company changes its headquarters to Torre Oscar Niemeyer, Praia de Botafogo, 186, salas 701 a 1901, in Botafogo, in the City of Rio de Janeiro, RJ.
- On December 21, 2017, the Company's Special Shareholders' Meeting approved, among other matters, (i) Vale's proposal to migrate to the special listing segment of B3 S.A. – Brasil, Bolsa, Balcão, known as Novo Mercado ("Novo Mercado"), and (ii) amendment to the Company's Bylaws to reflect the conversion of all "Class A" preferred shares into common shares, as well as adjusting them to the regulations of Novo Mercado in effect at the time of migration.
- As of December 22, 2017, the Company's common shares are traded on the Novo Mercado.
- On March 29, 2018, a new Shareholders' Remuneration Policy was approved, effective as of the publication of the results for the first half of 2018, the contents of which are available on the CVM website (www.cvm.gov.br) and the Company's website (www.vale.com).
- On June 28, 2018, Vale completed the transactions with Wheaton Precious Metals Corp. (Wheaton) and Cobalt 27 Corp. (Cobalt 27) for the sale of a Stream in the aggregate total of 75% cobalt, related to the cobalt byproduct of the Voisey's Bay mine to be delivered from January 1, 2021, encompassing the ramp-down of the current mine operation of Voisey's Bay and the future production of the Voisey's Bay (VBME) underground expansion project. Under the terms disclosed on June 11, 2018, Vale received, on that date, US\$ 390 million cash from Wheaton, and US\$ 300 million cash from Cobalt 27, upon conclusion of the transaction.
- To achieve self-sufficiency of electricity in Brazil by 2030 and increase renewable energy sources, Vale signed a 20-year long-term energy supply contract, to be provided by the Folha Larga Sul wind farm, a project of 151,2 MW in Campo Formoso, Bahia, Brazil. This project went into commercial operation in the second half of 2020. The contract also includes a future option to purchase assets by Vale.
- On December 6, 2018, Vale reaches a final agreement to acquire Ferrous Resources Limited (Ferrous), a company that operated iron ore mines located in close proximity to Vale's operations in Minas Gerais, Brazil. The operation was completed in August 2019, and at Vale's General Meeting held on April 30, 2020, the merger of Ferrous into the Company was approved. For further information, see item 15.7 of this Reference Form.
- On December 10, 2018, Vale S.A. entered into a stock purchase agreement with Hankoe FIP to acquire New Steel Global N.V. and, indirectly, New Steel S.A. and Centro Tecnológico Soluções Sustentáveis S.A., companies that develop innovative iron ore beneficiation technologies and have patents for dry concentration processes (Fines Dry Magnetic Separation). For further information, see item 15.7 of this Reference Form.
- On January 25, 2019, Dam I of the Córrego do Feijão Mine, which is part of Paraopebas Complex in the Southern System, located in Brumadinho, Minas Gerais, Brazil ("Brumadinho Dam"), collapsed. For further information, see items 7.9 and 10.3 of this Reference Form.
- After the collapse of the Brumadinho Dam, there was: (i) the suspension of the shareholders' remuneration policy and the variable remuneration of the executive officers on January 27, 2019; (ii) the hiring, by the Company's management, of a panel of specialists, composed of experts in

geotechnics and engineering ("Panel of Specialists"); (iii) a creation of three Independent Extraordinary Advisory Committees, which are not statutory: (a) Independent Special Advisory Committee on Dam Safety ("CIAE on Dam Safety"); (b) Independent Extraordinary Investigation Advisory Committee ("CIAE for Investigation"); and (c) Extraordinary Independent Consulting Committee for Support and Recovery ("Support and Recovery CIAE"), all composed of external, independent, respectable and experienced specialists on the topics related to their area of expertise; (iv) the creation, in April 2019, of the Special Directorate of Repair and Development, which coordinates the socioeconomic and environmental restoration actions of the impacted municipalities; and (v) the creation, in June 2019, of the Executive Board of Safety and Operational Excellence, with the scope of independent action focused on Vale's operations.

- In December 2019:

- Vale redeemed, with the resulting cancellation of, all "class A" preferred shares issued by MBR, wholly owned by Banco Bradesco BBI S.A., for the total amount of R\$ 3,309 million. With the completion of the share redemption and cancellation operation, Vale now holds 98.3% of MBR's capital, ending the sale of minority interest announced to the market on July 30, 2015.
- Vale entered into an agreement to sell its entire 25% stake in the Chinese company Henan Longyu Energy Resources Co., Ltd. to Yongmei Group Co., Ltd. for CNY 1.065 billion, equivalent to approximately US\$ 152 million. The sale was completed in August 2020.
- Vale revised the sustainability goals defined in 2018, in line with the United Nations 2030 Agenda for Sustainable Development Goals (SDGs). Said goals are described in item 7.8 of this Reference Form.
- It was presented by the Panel of Experts the final report of the work carried out, entitled "Report of the Panel of Experts on the Technical Causes for the Failure of Dam I of Córrego do Feijão".

- On February 20, 2020, the final report prepared by the Extraordinary Independent Consulting Committee for Investigation (CIAE-A) was submitted to the Board of Directors, made available in an executive summary format, entitled "Executive Summary of the Independent Investigation Report", and the Final Report of the Extraordinary Independent Consulting Committee for Support and Recovery (CIAEAR). The two committees mentioned had their activities terminated after the documents were delivered. On the same date, the extension of the operation of the Dam Safety CIAE was approved for another year, which presented its final report on April 26, 2021, and had its activities terminated on May 7, 2021.

- On March 20, 2020, a detailed plan was released with deadlines for implementing measures to meet the Support and Recovery CIAE's recommendations.

- On March 25, 2020, the Company announced the final composition of its Audit Committee, the establishment of which was approved by the Board of Directors on March 11, 2020, occasion on which the creation of the Compliance Board (Chief Compliance Officer, "CCO") was approved, reporting directly to the Board of Directors, which will be responsible for the areas of integrity and internal audit and for the management of the Whistleblower Channel, among other duties.

- Also in March 2020, after a decree by the World Health Organization ("WHO") of a new coronavirus pandemic (COVID-19), Vale intensified measures that had been taken since January 2020 to comply with the health and safety protocols in each of the countries where it operates. Additionally, activities were temporarily suspended at the distribution center in Malaysia (Teluk Rubian Maritime Terminal), with loading operations resumed on May 16, 2020, and the operation of the Voisey's Bay mine in Canada was ramped down and a state of "care and maintenance" was decreed.

- In June 2020, Vale adopted the necessary measures to suspend the activities of the mining establishment of the Itabira Complex, in compliance with a decision issued by the Regional Labor Court of the 3rd Region. The interdiction was suspended in the same month, after the Subsecretariat of Labor Inspection concluded that the Company adopted sufficient measures to mitigate the risk of contamination of workers by COVID-19 during its labor activities.

- In June 2020, the subsidiary Vale Canada Limited ("VCL") signed, together with Sumitomo Metal Mining Co. Ltd., the definitive agreements for the sale of a 20% interest in PT Vale Indonesia Tbk to PT Indonesia Asahan Aluminium. The sale was concluded in October 2020, with VCL receiving a cash inflow of IDR 4,126 billion, approximately US\$ 278 million.

- In July 2020, the Company's Nominating Committee was created and established, whose main role is to present improvements related to the size and structure of the Board of Directors, as well as submitting a proposal for the composition of the Board of Directors for consideration by the General Meeting.
- In July 2020, Vale entered into a non-binding agreement to establish the preliminary terms and conditions for the creation of a new venture ("NewVen") to supply low-GHG (greenhouse gas) metallic minerals and steelmaking solutions for the steel industry with Kobe Steel, Ltd. and Mitsui & Co., Ltd. NewVen's potential creation has the primary purpose of delivering low CO₂ metallic minerals to the global market, providing new technological solutions to our clients and will use existing and new CO₂ iron-making technology, such as TecnoRed® technology and the Midrex® process.
- In August 2020, the Serra Sul 120 Project was approved, which consists of increasing the capacity of the mine and the S11D plant by 20 Mtpy, with investments with a multiyear value of US\$ 1.5 billion and start-up expected for the first half of 2024. The project aims to ensure greater operational flexibility in the face of possible production or licensing restrictions in the Northern System.
- Also in August 2020, Vale and Ningbo Zhoushan PortGroup opened the Shulanghu Grinding Hub in China. The first product of the Grinding Hub will be the innovative GF88, a high-grade ground iron ore fine, which will use the Fines from Vale's Carajás (IOCJ).
- In October 2020, through its subsidiary Vale International S.A., Vale created a Joint Venture ("JV") with Ningbo Zhoushan Port Company Limited ("Ningbo Zhoushan Port"), a subsidiary of Zhejiang Provincial Seaport Investment & Operation Group Co. Ltd. (Ningbo Zhoushan Port Group Co. Ltd.), to build, own and operate the West III Project at Shulanghu Port, in the city of Zhoushan, China, consisting of the expansion of the facilities at that Port. The project has investments with a total multi-year value of RMB 4.3 billion (~US\$ 624 million). Vale will hold 50% of the Joint Venture.
- In November 2020, the subsidiary Vale Canada Limited ("VCL") entered into exclusivity with the Prony Resources New Caledonia consortium to negotiate the sale of its 95% interest in Vale Nouvelle-Calédonie S.A.S. ("VNC"). In December 2020, a binding put option agreement was executed, and the sale transaction of the equity interest was completed in March 2021, providing for a US\$ 1.1 billion financial package to VNC operations, in which Vale Canada Limited will contribute US\$ 555 million to support the continuity of operations. In addition to the above, Vale will continue to be entitled to a long-term supply contract for part of the production, allowing it to continue meeting the growing demand for nickel by the electric vehicle industry.
- In November 2020, Vale sold 100% of the shares in Biopalma da Amazônia S.A. – Reflorestamento, Indústria e Comércio to Brasil Bio Fuels Pará Ltda., a company belonging to the Brasil Bio Fuels S.A. group, resulting in the total divestment of our palm oil business.
- In November 2020, Vale completed the sale of its 25% interest in Zhuhai YPM Pellet Co., Ltd. (Zhuhai YPM) to Zhuhai Yueyufeng Iron and Steel Co., Ltd. (YYF), for US\$ 13 million.
- In November 2020, Vale's Shareholders' Agreement, signed in 2017, was terminated, whose signatories were Litela Participações S.A., Litel Participações S.A., Bradespar S.A., Mitsui & Co., Ltd. and BNDES Participações S.A. - BNDESPAR.
- In December 2020, the project for the generation of solar energy known as "Sol do Cerrado", in the municipality of Jaíba (MG), was announced, which is an important project for the generation of competitive and renewable energy for the operations of Vale and its affiliates.
- In December 2020, the early extension of the term of the contracts for railroad concessions of the Carajás Railroad and Vitória-Minas Railroad was approved, jointly and for thirty years, from the expiration of the contracts in force in 2027.
- In December 2020, Vale received the necessary licenses to start the construction of the Capanema Project, located in the municipalities of Santa Bárbara, Ouro Preto and Itabirito (MG). The Project consists of investments in the Capanema mine for reactivation of facilities and acquisitions of new equipment, and necessary adjustments, totaling expected investments with a multi-year value of US\$ 495 million, with start-up planned for the second half of 2023.
- In December 2020, Vale announced the gradual resumption of Samarco's operations, with the integrated resumption of operations at the Germano Complexes, located in Mariana, Minas Gerais, and Ubu, located in Anchieta, Espírito Santo. In April 2021, Samarco filed a petition for a court-

supervised reorganization before one of the Business Courts of the Judicial District of Belo Horizonte, State of Minas Gerais, based on Law No. 11,101/05.

- In January 2021, Vale announced the execution of a Heads of Agreement with Mitsui & Co., Ltd., allowing the parties to structure Mitsui's withdrawal from the Moatize coal mine and the Nacala Logistics Corridor, as a first step towards Vale's divestment of the coal business. The definitive contract was executed on April 19, 2021, for the acquisition, by Vale, of the total interests of Mitsui in the Moatize coal mine and in the Nacala Logistic Corridor. Mitsui's withdrawal from the Moatize coal mine and the Nacala Logistics Corridor is expected to be concluded during 2021.

- In February 2021, Vale entered into a Global Agreement with the State of Minas Gerais, the Public Defender's Office of the State of Minas Gerais, and the Public Prosecution Offices of the Federal Government and of the State of Minas Gerais for full reparation of environmental and social damage resulting from the collapse of the B-1 Dam in Brumadinho, Minas Gerais State.

- In February 2021, the Executive Board of Sustainability was created.

- In February 2021, Vale completed the transfer of the shares of Potassio Rio Colorado to the Province of Mendoza, in Argentina.

- In March 2021, the fourth amendment to the Indenture of Vale's 6th Issuance of Debentures was approved at the General Debenture Holders' Meeting.

- In April 2021, Vale's common share repurchase program was approved, limited to 270,000,000 common shares and their respective ADRs. The program will run for a period of up to 12 months (until March 2022).

Except as provided in item 8.4, on the impacts of COVID-19, Vale clarifies that there were no sector or macroeconomic policy decisions that have materially affected the Company in the last fiscal year ended on December 31, 2020 and up to the annual filing date of this Reference Form.

6.5 - Information on bankruptcy petition based on material value or for out-of-court or court-supervised reorganization

Not applicable. There are no bankruptcy petitions based on material values, or for out-of-court or court-supervised reorganization of the Company. .

6.6 - Other relevant information

Cobalt streaming transaction

In June 2018, the Company sold to Wheaton Precious Metals Corp. (Wheaton) and Cobalt 27 Capital Corp. (Cobalt 27) 75% of cobalt produced as a by-product at the Voisey's Bay mine as of January 1, 2021, which encompasses the ramp-down of existing mine production and production of the mine life of the underground mine expansion project.

The Company, on the other hand, received US\$ 690 million in cash from Wheaton and Cobalt 27 at the close of the transaction on June 28, 2018, and will receive additional payments of 20%, on average, of cobalt prices at the time of delivery.

Vale remains exposed to approximately 40% of Voisey's Bay's future cobalt production, through a 25% share of cobalt production and additional payments at the time of delivery.

7. Activities of the issuer

7.1 - Description of the main activities of the issuer and its controlled companies

Vale is one of the largest metals and mining companies in the world, based on market capitalization. Vale is one of the world's largest producers of iron ore and nickel. It also produces iron ore pellets, manganese ore, ferroalloys, metallurgical and thermal coal, copper, platinum group metals (PGMs), gold, silver, and cobalt. Vale is engaged in greenfield mineral exploration in six (6) countries. Vale operates large logistics systems in Brazil and other regions of the world, including railroads, maritime terminals and ports, which are integrated with its mining operations. In addition, Vale has a distribution center for iron ore delivery support around the world. Directly and through affiliates and joint ventures, Vale also has investments in energy and steel businesses.

The Company's corporate purpose is to (i) carry out the exploitation of mineral deposits in Brazil and abroad, through research, exploration, extraction, processing, industrialization, beneficiation, transportation, shipping and trade of mineral goods; (ii) build railways, operate and exploit own or third-party rail traffic, (iii) construct and operate own or third-party maritime terminals, as well as operating navigation and port support activities; (iv) provide integrated cargo transportation logistics services, including pick-up, storage, transshipment, distribution and delivery in the context of a multimodal transportation system; (v) the production, processing, transport, industrialization and commercialization of any and all sources and forms of energy, including the production, generation, transmission, distribution and commercialization of its own products, derivatives and by-products; and (vi) the engagement, in Brazil or abroad, in other activities that may be of direct or indirect consequence for the achievement of our corporate purposes, including research, industrialization, purchases and sales, import and export, the development, industrialization and commercialization of forest resources and the provision of services of any kind whatsoever; and (vii) incorporate or hold interest, under any modality, in any other company, consortium or entity whose corporate purpose is directly or indirectly linked, accessory or instrumental to its corporate purpose.

For information on the incorporation of the Company, see item 6.3 of this Reference Form.

For information on the activities carried out by the Company and its subsidiaries and their markets, see items 7.2 and 7.3 below.

7.1-A. Indicate if the issuer is a government-controlled company:

a. public interest that justified its creation

Not applicable, considering that Vale is a publicly-held company, not a government-controlled company.

It should be noted that Vale was founded by the Brazilian Federal Government (Brazilian Government) on June 1, 1942, through Decree-Law no. 4,352, and finally on January 11, 1943, by the Definite Meeting for the Constitution of Corporation Companhia Vale do Rio SA Doce SA, in the form of a government controlled company, with the purpose of exploiting, trading, transporting and exporting iron ore from Itabira mines, and exploring the traffic of the Vitória-Minas Railroad (EFVM), carrying iron ore and agricultural products from Vale do Rio Doce, in the Southeast region of Brazil, to the port of Vitória, located in the State of Espírito Santo. Despite being incorporated as a government-controlled company, Vale was privatized in 1997.

b. performance of the issuer in compliance with public policies, including universalization goals, indicating:

(i) the government programs implemented in the previous fiscal year, those determined for the current fiscal year, and those foreseen for the coming fiscal years, criteria adopted by the issuer to classify this action as being developed to meet the public interest indicated in letter "a"

Not applicable, considering that Vale is not a government-controlled company.

(ii) regarding the public policies mentioned above, investments made, costs incurred and the origin of the resources involved – cash generation, transfer of funds and financing, including sources of funding and conditions

Not applicable, considering that Vale is not a government-controlled company.

(iii) estimated impacts of the above mentioned public policies on the financial performance of the issuer or declaring that there was no analysis of the financial impact of the above mentioned public policies

Not applicable, considering that Vale is not a government-controlled company.

c. pricing process and rules for setting tariffs

Not applicable, considering that Vale is not a government-controlled company.

7.2 - Information on operating segments

a. Products and services traded in each operating segment

- (i) *Ferrous Minerals* – Comprises the extraction of iron ore and pellet production, as well as the northern, southern, southeastern and midwest transport corridors, including railways, ports, terminals and vessels, linked to mining operations. The exploitation of manganese ore and the production of ferroalloys are also included in this segment.
 - *Iron ore and iron ore pellets.* Vale operates four systems in Brazil for the production and distribution of iron ore, which are referred to as Northern, Southeastern, Southern and Midwestern Systems. Each of the Northern and Southeastern systems is fully integrated, consisting of mines, railways, offshore terminals and a port. The Southern System consists of two mining complexes and two maritime terminals. Vale also has iron ore pellet operations in several locations, some of which are conducted through joint ventures. As of the date of this Reference Form, Vale operates eleven pelletizing plants in Brazil (three of these plants are currently suspended) and two in Oman. Vale also has a 50% stake in Samarco Mineração S.A. ("Samarco") and a 25% stake in one pellet company in China.
 - *Ferroalloys and Manganese Ore.* Vale conducts its manganese mining operations through the holding (Vale S.A.) and subsidiaries in Brazil, and produces several types of manganese ferroalloys through a wholly-owned subsidiary in Brazil.
 - *Logistics* – Vale is a leading operator of logistics services in Brazil and other regions of the world, with railroads, maritime terminals, distribution centers and ports. Two of its four iron ore systems include a railroad network integrated to port facilities and terminals. It also has an interest in MRS Logística S.A. ("MRS"), which transports its iron ore products from the Southern System mines to maritime terminals, and in VLI S.A. ("VLI"), which provides integrated logistics solutions to general cargo through railroads, inland and maritime terminals in Brazil. Vale charters carriers to transport the products it sells based on cost and freight ("CFR") to its customers.
- (ii) *Base metals* - Consists in the production of non-ferrous minerals, including nickel operations (co-products and byproducts) and copper.
 - *Nickel.* The main nickel mines and processing operations are conducted by Vale's wholly-owned subsidiary, Vale Canada Limited ("Vale Canada"), with operations in Canada, Indonesia and New Caledonia. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form. Vale also has nickel operations in Onça Puma, in the Brazilian State of Pará. It also controls and operates nickel refining facilities in the United Kingdom and Japan, and has stakes in a nickel refinery in South Korea. Nickel refining facilities in China and Taiwan are currently under care & maintenance.
 - *Copper.* In Brazil, Vale produces copper concentrates in Sossego and Salobo, in Carajás, in the state of Pará. In Canada, Vale produces copper concentrates, copper matte and copper cathodes in conjunction with its nickel mining operations in Sudbury and Voisey's Bay.
 - *Cobalt, PGM and other precious metals.* Vale produces cobalt as a byproduct of its nickel mining and processing operations and refine it at its Port Colborne facilities, in the Province of Ontario, Canada. Vale produces refined cobalt at its Long Harbor facility, in Newfoundland and Labrador. Vale also produces cobalt as a by-product of its nickel operations in New Caledonia. Vale produces platinum group metals (PGMs) as by-products of its nickel mining and processing

operations in Sudbury, Ontario, Canada. The Company concentrates PGMs at its Port Colborne facilities. Vale produces gold and silver as by-products of its mining and nickel processing operations in Canada, and gold also as a byproduct of its copper mining in Sossego and Salobo, in Brazil.

- (iii) *Coal* - Consists of coal mining and related logistics services. Vale's coal operations are primarily conducted in Mozambique, through its subsidiary Vale Moçambique S.A. ("Vale Mozambique"), where Vale is ramping up its metallurgical and thermal coal operations.

b. Revenue from the segment and its participation in the company's net revenues

In BRL million Segment	2020		2019		2018	
	Net Revenue	% total	Net Revenue	% total	Net Revenue	% total
Ferrous Minerals	167,365,000.00	80.26	118,767,000.00	79.90	102,842,000.00	76.47
Coal	2,431,000.00	1.17	4,005,000.00	2.70	6,025,000.00	4.48
Base Metals	37,233,000.00	17.85	24,351,000.00	16.38	24,527,000.00	18.24
Others	1,500,00.00	0.72	1,517,000.00	1.02	1,089,000.00	0.81
Total Revenue	208,529,000.00	100.00	148,640,000.00	100.00	134,483,000.00	100.00

c. Profit or loss resulting from the segment and its participation in the company's net income

The Company does not report net income (loss) per segment.

In BRL million	2020		2019		2018	
	Profit	% total	Profit	% total	Profit	% total
Total Net Income (Loss)	26,713,000.00	100.00	(6,672,000.00)	100.00	25,657,000.00	100.00

7.3 - Information on products and services related to operating segments

- a. Characteristics of the production process
- b. Characteristics of the distribution process
- c. Characteristics of the operation markets, in particular:
 - i. Competition conditions in the markets
 - ii. Participation in each of the markets
- d. Any seasonality
- e. Main inputs and raw materials, informing:
 - i. description of the relationships maintained with suppliers, including whether they are subject to control or regulation, indicating the bodies and respective applicable legislation
 - ii. possible dependence on a few suppliers
 - iii. possible volatility in their prices

1. Ferrous Minerals

Vale's ferrous mineral business includes iron ore exploration, pellet production, manganese ore exploration and ferroalloy production. Each of these activities is described below.

1.1 Iron ore and pellets

1.1.1 *Iron ore operations*

The Vale carries out iron ore operations in Brazil, mainly at the level of (a) Vale S.A., the parent company, (b) through its wholly-owned subsidiaries, Mineração Corumbaense Reunida S.A. ("MCR") and (c) Minerações Brasileiras Reunidas S.A. ("MBR"). Vale's iron ore mines, all open-pit, and the associated operations are essentially concentrated in three systems: the Southeastern system, the Southern system and the Northern system, each with its own transport and shipping capacity. Vale also carries out mining operations in the Midwest system. Vale undertakes all its iron ore operations in Brazil through concessions from the Brazilian Federal Government for an indefinite term, subject to the useful life of the mines.

Company / Mining System	Location	Description / History	Mineralization	Operations	Power Source	Access / Transportation
Vale						
<i>Northern System</i>	Carajás, in the State of Pará	Divided between Serra Norte, Serra Sul and Serra Leste (North, South and East Areas). Since 1984, Vale has carried out mining activities in Serra Norte, which is subdivided into three main areas (N4W, N4E and N5) and two main facilities beneficiation facilities. In 2014, Vale started a mine and beneficiation plant in the	Type of high-grade hematite ore (iron grade around 65%).	Open-pit mining operations. In Serra Norte, one of the main plants applies the natural moisture beneficiation process, consisting of crushing and screening, and the other applies both natural and wet beneficiation processes in different lines. The wet beneficiation process consists simply of sorting operations by size, including screening,	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The iron ore is transported by the Carajás Railroad ("EFC") to the Ponta da Madeira or maritime terminal, in the state of Maranhão. The iron ore from Serra Leste is transported by trucks from the mine site to the EFC Railroad. Serra Sul ore is shipped by means of a 101-kilometer railway extension to the EFC railway.

Company / Mining System	Location	Description / History	Mineralization	Operations	Power Source	Access / Transportation
		Serra Leste. Vale's operations in Serra Sul, where its S11D mine is located, began in 2016.		hydrocyclone, crushing and filtration. Production at this site consists of sinter feed, pellet feed and granulated ore. The process of natural humidity beneficiation in Serra Leste and Serra Sul consists of crushing and screening. Serra Sul and Serra Leste produce only ore fines.		
<i>Southeastern System</i>	Iron Quadrangle, in the state of Minas Gerais	Three mining complexes: Itabira (two mines, with three main processing plants), central mines (two mines, with two main processing plants and one secondary plant) and Mariana (three mines, with three main processing plants).	Ore reserves have high itabirite ore indexes in relation to hematite ore. Itabirite ore has an iron content between 35% and 60%. Part of the ore is concentrated to reach the transport content and part is shipped and mixed in Asia with the high-grade ore of the Northern System.	Open-pit mining operations. The run of mine ("ROM") is usually processed through standard crushing, followed by the classification and concentration phases, producing sinter feed, granulated ore and pellet feed at the beneficiation plants located next to the mining complexes. For status of halted operations, see item 7.9 of this Reference Form.	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The Vitória-Minas Railroad ("EFVM") connects these mines to the port of Tubarão.

Company / Mining System	Location	Description / History	Mineralization	Operations	Power Source	Access / Transportation
<i>Southern System</i>	Iron Quadrangle, in the state of Minas Gerais	Two main mining complexes: Vargem Grande (five mines and five large beneficiation plants) and Paraopeba (five mines and three large beneficiation plants). In 2019, the Southern System was reorganized to eliminate the Minas Itabirito complex and consider the mines that made up it as part of the Vargem Grande and Paraopeba complexes.	Ore reserves have high itabirite ore indexes in relation to hematite ore. Itabirite ore has an iron content between 35% and 60%. Part of the ore is concentrated to reach the transport content and part is shipped and mixed in Asia with the high-grade ore of the Northern System of Vale.	Open-pit mining operations. ROM is usually processed through standard crushing, followed by the classification and concentration phases, producing sinter feed, granulated ore and pellet feed at the beneficiation plants located next to the mining complexes. For status of halted operations, see item 7.9 of this Reference Form.	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	MRS carries iron ore products from the mines to the maritime terminals of Vale of Ilha Guaíba and Itaguaí, in the state of Rio de Janeiro. EFVM's railroad connects certain mines to the port of Tubarão, in Espírito Santo.
<i>Midwest System</i>	State of Mato Grosso Sul	Two mines and two plants located in the city of Corumbá.	Hematite ore, which generates predominantly granulated ore. Iron content of 62% on average.	Open-pit mining operations. The process of beneficiation for the operation of the mine consists of standard crushing and grading phases, producing granulates and sinter feed.	Supplied through the national power grid. Acquired by means of energy purchase contracts.	Transported by barge that travels along the Paraguay and Paraná rivers to transhippers in the port of Nueva Palmira, in Uruguay, or delivered to customers in Corumbá.

1.1.2 Iron ore production

The following table presents information about Vale's iron ore production.

		Production in the year ended December 31 (1)			Process Recovery 2020 (2)
		2020	2019	2018	
Mine / Plant	Type	(Million metric tons)		(%)	
Southeastern System					
Itabira	Open-air	23.9	35.9	41.7	46.0
Minas Centrais	Open-air	15.7	25.9	36.0	69.0
Mariana	Open-air	17.7	11.3	26.7	91.0
Total Southeastern System		57.3	73.1	104.4	
Southern System (3)					
Vargem Grande	Open-air	25.1	13.1	43.1	93.8
Paraopeba	Open-air	23.3	24.7	41.0	73.3
Total Southern System		48.4	37.8	84.1	
Midwest System					
Corumbá	Open-air	2.5	2.4	2.5	66.2
Total Midwest System		2.5	2.4	2.5	
Northern System					
Serra Norte e Serra Leste	Open-air	109.4	115.3	135.6	96.2
Serra Sul	Open-air	82.9	73.4	58.0	100.0
Total Northern System		192.3	188.7	193.6	
Total		300.4	302.0	384.6	

- (1) Production numbers include purchases of ore from third parties, production of mines and inputs for pelletizing plants. The production of Segredo and João Pereira is included in the Paraopeba complex.
- (2) Percentage of the mine recovered in the beneficiation process. Process recovery values do not include third-party ore purchases.
- (3) In 2019, the Southern System was reorganized to eliminate the Minas Itabirito complex and consider the mines that comprised it as part of the Vargem Grande and Paraopeba complexes.

1.1.3 Operations of iron ore pellets

Vale produces iron ore pellets in Brazil and Oman, directly and through joint ventures, as shown in the table below. Vale's estimated total nominal capacity is 64.7 million tons per annum ("Mtpy"), including the full capacity of its pelletizing plants in Oman, but not including its joint ventures Samarco, Zhuhai YPM and Anyang.

Company / Plant	Description / History	Nominal capacity (Mtpy)	Power source	Other information	Vale's Corporate Interest (%)	Partners
<u>Brazil:</u>						
<u>Vale</u>						
<i>Tubarão (state of Espírito Santo)</i>	Three wholly-owned pelletizing plants (Tubarão I, II and VIII) and five leased plants (Itabasco, Hispanobras, Kobrasco and two Nibrasco plants). These plants receive iron ore mainly from Vale's mines in the Southeastern System, and distribution is made through Vale's logistics infrastructure.	36.7 ⁽¹⁾	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	Operations at the Tubarão I and Tubarão II pelletizing plants were suspended in October 2019 in response to market conditions.	100.0	-
<i>Fábrica (state of Minas Gerais)</i>	Part of the Southern System. Receives iron ore from the Paraopeba complex and purchases from third parties. Production is mostly transported by MRS and EFVM.	4.5	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The operation of the Fábrica plant has been suspended since February 2019, as determined by ANM. For information on the paralyzed operations, see item 7.9 of this Reference Form.	100.0	-
<i>Vargem Grande (state of Minas Gerais)</i>	Part of the Southern System. Receives iron ore from the Vargem Grande complex. Production is mostly transported by MRS.	7.0	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	Operation of the Vargem Grande plant resumed in January 2021. Operations have been suspended since February 2019, following a determination of the ANM.	100.0	-
<i>São Luís (state of Maranhão)</i>	Part of the Northern System. It Receives iron ore from the mines of Carajás. The production is shipped to customers through the Ponta da Madeira maritime terminal.	7.5	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The operations at the São Luís plant were restarted in the second half of 2018. The operations at this plant had been suspended since 2012.	100.0	-
<u>Oman:</u>						
<i>Vale Oman Pelletizing Company LLC</i>	Vale's industrial complex. Two pelletizing plants with a total nominal capacity of 9.0 Mtpy. The pelletizing plant is integrated into Vale's distribution center, with a nominal capacity of 40.0 Mtpy.	9.0	Supplied through the national power grid.	Oman's plant is supplied by iron ore of the Iron Quadrangle in Minas Gerais, through the port of Tubarão, and by iron ore of Carajás through the Ponta da Madeira maritime terminal.	70.0	OQ S.A.O.C.

(1) Vale's environmental operational licenses for Tubarão pelletizing plants predict a capacity of 36.2 Mtpy.

1.1.4 Production of pellets

The following table provides information on Vale's main production of iron ore pellets.

Company	Year ended December 31,		
	2020	2019	2018
	(Million metric tons)		
Vale ⁽¹⁾	29.7	41.8	55.3
Total Production	29.7	41.8	55.3

(1) These figures correspond to 100% of the production of Vale's pellet plants in Oman and of the five pellet plants leased in Brazil and are not adjusted to reflect Vale's ownership. Operational leases for the Hispanobras pelletizing plants expire in the third quarter of 2021 for the Itabasco and Nibrasco pelletizing plants in 2022, and for the Kobrasco pelletizing plants in 2033.

1.1.5 Customers, sales and marketing

Vale supplies all its iron ore and iron ore pellets to the steel industry. The existing and expected levels of demand for steel products affect the demand for the Company's iron ore and pellets. The demand for steel products is influenced by several factors, such as global industrial production, construction and infrastructure spending. For more information on pricing and demands, see item 10.2 of this Reference Form.

In 2020, China accounted for 67% of Vale's shipments of iron ore and pellets, and Asia, as a whole, accounted for 81%. Europe accounted for 8%, Brazil accounted for 8%, followed by the Middle East with 3%. Vale's ten largest customers together acquired 122 million metric tons of iron ore and pellets from its production, accounting for 43% of Vale's sales volume of iron ore and pellets in 2020 and 42% of Vale's total revenues of iron ore and pellets. In 2020, a customer in the ferrous minerals segment accounted for 10.1% of Vale's total revenue.

Production of pellets in 2020, 57% were blast furnace pellets and 43% were direct reduction pellets. The blast furnace and direct reduction are different technologies used by steel mills to produce steel, each using different types of pellets. In 2020, the Brazilian and Asian markets (mainly China and Japan) were the main markets for Vale blast furnace pellets, while the Middle East and North America were the main markets for the Company's direct reduction pellets.

Vale invests in customer service in order to improve its competitiveness. Vale works together with its customers to understand its objectives and to provide them with iron ore solutions that meet their specific needs. Through its experience in mining, agglomeration and iron manufacturing processes, Vale seeks technical solutions that enable a balance between the best use of its world-class mining assets and the satisfaction of its customers. Vale believes that its ability to provide customers with a complete iron ore solution and the quality of their products are extremely important advantages that help them improve their competitiveness over competitors who may be in a more convenient geographic location. In addition to providing technical assistance to its customers, Vale has offices in St. Prex (Switzerland), Tokyo (Japan), Singapore, Dubai (United Arab Emirates), Shanghai, and Beijing (China), which support the global sales of Vale International, and an office in Brazil, which supports sales to South America. These offices also allow Vale to maintain closer contact with its customers, monitor their needs and the performance of their contracts, and ensure that its customers receive the products in a timely manner.

Vale sells iron ore and pellets through various agreements, including long-term contracts with customers, and in spot, through public offerings and trading platforms. Vale's pricing is generally linked to market price indexes and uses a variety of mechanisms, including current spot prices and average prices during certain periods. In cases where the products are priced before the final

price is determinable at the time of delivery, Vale recognizes the sale based on a provisional price with a subsequent adjustment to reflect the final price.

In 2020, Vale protected part of its total exposure to bunker oil prices, for long-term contracts related to its international and domestic sales FOB – Free on Board ("FOB") and CFR – Cost and Freight ("CFR").

1.1.6 *Competition*

The global market for iron ore and pellets is extremely competitive. The main factors that affect competition are price, quality and variety of products offered, reliability, operating costs and transportation costs.

- *Asia* - Vale's main competitors in the Asian market are located in Australia and include subsidiaries and affiliates of BHP Billiton PLC ("BHP Billiton"), Rio Tinto Ltd. ("Rio Tinto") and Fortescue Metals Group Ltd. ("FMG"). Vale is competitive in the Asian market for two reasons. Firstly, steelmakers generally seek to obtain types (or mixtures) of iron ore and pellets which enable them to generate the desired end product in the most economical and efficient manner. Vale's iron ore has low levels of impurities and other properties that usually result in lower processing costs. For example, in addition to its high content, the alumina content of its iron ore is very low compared to that of Australian ores, reducing coke consumption and increasing productivity in blast furnaces, which is especially important during periods of great demand. When the market demand is strong, Vale's quality differential usually stands out among its customers. Secondly, steel mills often develop sales relations based on the reliable supply of a specific mixture of iron ore and pellets.

The ownership and operation of North and Southeastern Systems' logistics facilities helps the Company to ensure that its products are delivered on time and at a relatively low cost. The Company relies on long-term charter contracts to ensure transport capacity and improve its ability to offer its products in the Asian market at competitive costs on a CFR basis, despite higher freight costs compared to Australian producers. To support the Company's iron ore business strategy, Vale operates two distribution centers, one in Malaysia and another in Oman, and has long-term contracts with seventeen ports in China, which also serve as distribution centers.

In 2015, Vale launched Brazilian blend fines ("BRBF"), a high quality product resulting from the blend of Carajás fines, which contain a higher concentration of iron and a low concentration of silica in the ore, with fines from Southern and Southeastern systems, which contain a lower concentration of iron in the ore. In August 2018, Metal Bulletin launched a new index, the low alumina content of 62% Fe, based on Vale's BRBF. During 2020, the low alumina content of 62% Fe was negotiated with a premium of USD 1.2 per dmt on the 62% Fe index. The resulting mixture provides strong performance in any type of sintering operation. It is produced at Vale's Teluk Rubiah Maritime Terminal in Malaysia and at seventeen distribution centers in China, which reduces time to reach Asian markets and increases its distribution capillarity through smaller vessels. In 2019, Vale announced the launch of GF88, a new product to serve the growing pellet production market in China, which consists of Carajas fines (IOCJ) obtained through a rectification process, opening a new market for the high quality portfolio.

- *Europe* - Vale's main competitors in the European market are Luossavaara Kiirunavaara AB ("LKAB"), ArcelorMittal Mines Canada Inc., Iron Ore Company of Canada ("IOC"), a subsidiary of Rio Tinto, Kumba Iron Ore Limited, and Société Nationale Industrielle et Minière ("SNIM"). Vale is competitive in the European market for the same reasons that it is competitive in Asia, but also because of the proximity of its port facilities to European customers.

- *Brazil* - The Brazilian iron ore market is also competitive and includes several small iron ore producers. Some steelmakers, such as Gerdau S.A. ("[Gerdau](#)"), Companhia Siderúrgica Nacional ("[CSN](#)"), Vallourec Tubos do Brasil S.A., Usiminas and ArcelorMittal also have iron ore operations. Although price has relevance, quality and reliability are also important competitive factors. Vale believes that its integrated transportation systems, its high quality ore and its technical services make it a strong competitor in the Brazilian market. With regard to pellets, Vale's main competitors are LKAB, Iron Ore Company of Canada, Ferrexpo Plc, ArcelorMittal Mines Canada and Bahrain Steel.

1.2 Manganese ore and ferroalloys

1.2.1 *Operations and production of manganese ore*

Vale carries out its manganese mining operations in Brazil through Vale S.A. and its wholly-owned subsidiaries Vale Manganês S.A. ("[Vale Manganês](#)") and MCR. Mining operations are carried out under concessions from the Federal Government granted for an indefinite period, subject to the life of the mines. Its mines produce metallurgical ore, mainly used to produce manganese ferroalloys, a raw material used to produce carbon steel and stainless steel.

Mining complex	Company	Location	Description / History	Mineralization	Operations	Power source	Access / Transportation
Azul	Vale S.A.	State of Pará	Open-pit mining operations and local beneficiation plants. Since March 2020, operations of the Azul mine have been suspended due to the COVID-19 pandemic. For further information, see item 7.9 of this Reference Form.	Oxide ores of high and medium content (content from 24 to 46% of manganese).	Phases of crushing, debugging and grading, producing granules and fines.	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The manganese ore is transported by truck and by the railway EFC to the Ponta da Madeira maritime terminal.
Morro da Mina	Vale Manganês	State of Minas Gerais	Open-pit mining operations and concentration plant.	Medium and low content silico-carbonate ores (average content of 28% manganese).	DMS/HMS process of separation in dense medium-heavy, crushing and sifting, producing granulates for the Ferroalloy mills of Barbacena and Ouro Preto.	Supplied through the national power grid. Acquired from regional utility companies, and through energy purchase agreement.	The manganese ore is transported by truck to the ferroalloy plants of Barbacena and Ouro Preto.

Urucum MCR State of Mato Grosso do Sul Underground mining operations and local beneficiation plants. High and medium oxide ores (average content of 46% manganese). Phases of crushing, debugging and grading, producing granules and fines. Supplied through the national power grid. Acquired by means of energy purchase contracts. The manganese ore is transported by barges that travel in the Paraguay and Paraná rivers until the transshipment in the port of Nueva Palmira in Uruguay.

The following table presents information on Vale's manganese ore production, obtained after the process of mass beneficiation and recovery.

		Production in the year ended December 31,			2020 Process Recovery in ⁽¹⁾
		2020	2019	2018	
Mine	Type	(Million metric tons)			(%)
Azul	Open-air	0.2	1.0	1.0	42.6
Morro da Mina	Open-air	0.1	0.2	0.1	80.0
Urucum	Underground	0.4	0.4	0.7	84.1
Total		0.7	1.6	1.8	

(1) Percentage of the mine recovered in the beneficiation process.

1.2.2 Operations and production of manganese ferroalloys

Vale conducts its manganese ferroalloy business through its wholly-owned subsidiary Vale Manganês. The production of manganese ferroalloys consumes significant amounts of electricity, which is fueled by means of energy purchase and sale contracts. For information about the risks associated with potential power supply issues, see item 4.1 of this Reference form.

Vale produces various types of manganese ferroalloys, such as high and medium carbon manganese and ferro-silicon-manganese alloys.

Plant	Location	Description / History	Nominal capacity	Power source
Plants of Minas Gerais	Cities of Barbacena and Ouro Preto	Barbacena has six furnaces, two refining furnaces and a briquetting plant. Ouro Preto has three furnaces, which are not currently in operation due to market conditions.	Barbacena: 66,000 tonnes per year (54,000 tonnes per year of ferro-silicon manganese and 12,000 tonnes per year of iron-manganese medium carbon). Ouro Preto: 64,000 tons per year of ferro-silicon manganese.	Supplied through the national power grid. Acquired from Furnas - Centrais Elétricas S.A. or through energy purchase agreements.

In September 2020, Vale closed its plant located in the city of Simões Filho, state of Bahia, Brazil, which produced manganese ferroalloys due to a strategic business decision.

The following table presents information on Vale's manganese ferroalloy production.

Plant	Production for the year ended December 31, ⁽¹⁾		
	2020	2019	2018
	(thousand metric tons)		
Barbacena	51	54	55
Ouro Preto	11	11	10
Simões Filho	11	86	103
Total	73	151	168

(1) The production numbers reflect the hot metal (hot metal) that is further processed by a crushing and sifting installation. The average mass recovery in this process is 85%.

1.2.3 Manganese ore and ferroalloys: sales and competition

The manganese ore and ferroalloys markets are highly competitive. The competition in the manganese ore market occurs in two segments. Medium- and high-grade manganese ore competes in global transoceanic bases, while low-grade ore competes regionally. For some manganese ferroalloys, especially ferromanganese, high-grade manganese ores must achieve competitive quality and cost, while medium to low-grade ores can be used in the production of silicon-manganese.

In recent years (especially since 2016), production on a contained metal base has grown more strongly than gross weight production. This occurs due to the fact that the average manganese content in global ore production has increased, mainly as a result of the fall in production of very low-content ores in China.

The six main producing countries that contained manganese are South Africa, Australia, Gabon, Ghana, Brazil and China, which together accounted for 83% of production in 2019. The geographical distribution of manganese ore production is quite similar to that of global reserves. The most significant trend in manganese ore production in the last two decades has been a huge increase in production in South Africa, and a corresponding decline in Chinese production. In the last two years there has also been a significant increase in production outside South Africa, much in four other African countries (Ghana, Gabon, Ivory Coast and Zambia). Brazil is the fifth largest producing country; with stable production for most of the last decade, before a substantial increase in 2019.

Vale competes in the transoceanic market with high and medium ore from the Azul and Urucum mines, where it benefits from extensive synergies with its iron ore operations, from the mines to the rail, port and naval operations. Its main competitors in this segment are South32 (Australia and South Africa) and Eramet (Gabon). The company's low-level ores, especially the Morro da Mina, are consumed internally in their ferroalloys foundries.

Unlike manganese ore, the production of manganese alloys is very fragmented. There are only 13 companies with known alloy production capacity above 350 ktpa. These companies have an estimated combined global market share of less than 50%. The fragmentation of the industry reflects, among other factors, the large number of producers mainly in China and the substantial overcapacity in that country.

The manganese ferroalloy market is characterized by a large number of participants competing primarily on the basis of price. The company's competitors are mainly located in countries producing manganese ore or steel. Potential entrants or substitutes come from: (i) silicon or chromium ferroalloys (which may occasionally change their furnaces to manganese), and (ii) electrolytic manganese producers. Competitors can be integrated foundries like Vale, which supply manganese ore from their own mines, or non-integrated foundries. The main competitive

factors of this market are the costs of manganese ore, electricity, logistics and reducers, such as coke, coal and charcoal. Vale competes with independent and integrated producers.

Concentrating mainly on Brazilian, North American and South American Steel customers, the company's ferroalloys operations also benefit from synergies with its sales, commercialization, acquisition and logistics activities of Iron ore. Vale purchases its energy and coke supplies at reasonable market prices, albeit through medium and long-term contracts. Competitors in the Brazilian market are about a dozen foundries with capacities of five to 90,000 metric tons per year. Vale has an advantage over them in the production of manganese alloy with medium carbon content, which has higher added value in the market.

2. Base metals

2.1 Nickel

2.1.1 *Operations*

Vale carries out its nickel operations mainly through its wholly-owned subsidiary Vale Canada, which operates two nickel production systems, one in the North Atlantic region and another in the Asia-Pacific region. Vale also produces copper as a co-product in its nickel operations in Canada and, through Vale S.A., operates a third nickel production system, the Onça Puma, in the South Atlantic region. Its nickel operations are shown in the table below.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
North Atlantic Vale Canada	Canada — Sudbury, Ontario	Integrated mining, grinding, melting (smelting) and refining operations to transform refined nickel ore, with a nominal capacity of 66,000 metric tons of refined nickel per year and additional nickel oxide feed to the refinery in Wales. The mining operations in Sudbury began in 1885. Vale acquired Sudbury operations in 2006.	<i>Nickel.</i> Mainly underground mining operations with nickel sulfide ore bodies that also contain some amount of copper, cobalt, PGMs, gold and silver. The operations also process external third-party inputs and inputs of Vale's operation in Thompson. In addition to producing finished nickel in <i>Sudbury</i> , Vale sends an intermediate nickel oxide product to its nickel refinery in Wales for final product processing. <i>Copper.</i> Production of intermediate copper products, such as copper	Patented mining rights with no expiration date; mining leases that expire between 2021 and 2041; and occupation mining licenses with an indefinite expiration date ⁽¹⁾ .	Provided by Ontario's provincial power grid and produced directly by Vale through hydrogeneration .	Located on Trans-Canada Highway and two major railways that cross the Sudbury area. The finished products are delivered to the North American market by truck. For overseas customers, the products are loaded into containers and travel intermodal (truck/train/cargo ship) through the ports of the east coast and west of Canada.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
			concentrate and copper matte, in addition to a finished product in the form of copper cathodes.			
Vale Canada	Canada — Thompson, Manitoba	Mining and grinding operations to process ore into nickel concentrate. Vale plans to phase out smelting and refining activities at Thompson during 2018. Mineralization at Thompson was discovered in 1956 and operations were acquired by Vale in 2006.	<i>Nickel.</i> Mainly underground mining operations with nickel sulfide ore bodies that also contain some amount of copper and cobalt. Since the second half of 2018 (smelting and refining closure), most of Thompson's nickel concentrate has been refined in Sudbury, but there is also flexibility to be refined in Long Harbour.	Government -issued leases win between 2021 and 2025; mineral leases expire at 2034. ⁽²⁾	Provided by Manitoba provincial utility company.	Intermediate concentrates are delivered in Ontario.
Vale Newfoundland & Labrador Limited	Canada - Voisey's Bay and Long Harbor Newfoundland & Labrador	Integrated open-pit mining and grinding operation in Voisey's Bay, producing copper and nickel concentrates with concentrated nickel refining in Long Harbor for finished metal products, with an estimated nominal capacity of approximately 50,000 metric tons of refined nickel per year as gradual growth (ramp-up). Voisey's Bay operations began in	Single open-pit mine (Ovoid), with extension potential for underground operations. The deposits are bodies of nickel ore, which also contain copper and cobalt. Long Harbour facilities continued to ramp-up in 2020, while processing concentrate from Voisey's Bay, exclusively. Copper concentrate from the open-pit mine is sold directly to the market.	The mineral lease ends in 2027, with the right to subsequent renewals, always for periods of ten years.	The power at Voisey's Bay is 100% supplied by Vale's diesel generators. Power at the Long Harbor refinery is provided by the provincial utility company of Newfoundland and Labrador.	Nickel and copper concentrates are transported to the port by truck and sent by solid bulk vessels to overseas markets or to Vale's operations at Long Harbor for further refining.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
		2005 and were purchased by Vale in 2006.				
Vale Europe Limited	United Kingdom Clydach, Wales	— Autonomous nickel refinery (refined nickel producer), with nominal capacity of 40,000 metric tons per year. The Clydach refinery began operations in 1902 and was acquired by Vale in 2006.	It processes nickel oxide (intermediate product) supplied by the Vale's operations in Sudbury and Matsuzaka/PTV I to produce refined nickel in the form of powder and pellets.	—	Supplied through the national power grid.	Carried to the final customer in the UK and continental Europe by truck. Products for overseas customers are transported by truck to the ports of Southampton and Liverpool and shipped by ocean containers.
<u>Asia-Pacific</u> PT Vale Indonesia Tbk ("PTVI")	Indonesia Sorowako, Sulawesi	— Open-pit mining area and its respective processing facilities (producer of nickel matte, an intermediate product), with nominal capacity of approximately 80,000 metric tons of nickel in matte per year. PTVI shares are traded on the Indonesian Stock Exchange. Vale indirectly holds approximately 45% of PTVI's capital stock, Sumitomo Metal Mining Co., Ltd. ("Sumitomo"), and an affiliate holds approximately 15%, PT Indonésia Asahan Aluminium (Persero) ("Inalum") holds 20%, and the public holds approximately 20%. PTVI was founded in 1968,	PTVI extracts nickel ore from lateritic and produces matte nickel, which is sent mainly to Vale's nickel refinery in Japan. Under the guaranteed sales contracts during the life of the mine, PTVI sells 80% of its production to the wholly-owned subsidiary Vale Canada and 20% to Sumitomo.	Contract of Work expires in 2025, entitled to two consecutive ten-year extensions, in the form of a work permit, subject to approval by the Indonesian government. ⁽³⁾	Produced mainly by the low cost hydroelectric plants of PTVI in the Larona River (there are currently three units). PTVI has thermal generators to complement its hydroelectric power supply with an energy source that is not subject to hydrological factors.	Transported by truck for approximately 55 km to the river port in Malili and loaded on barges to load general cargo ships for later shipment.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
Vale Nouvelle-Calédonie S.A.S (" <u>VNC</u> ")	New Caledonia Southern Province	<p>started trading in 1978, began trading its shares on the Indonesian stock exchange in 1990, and was acquired by Vale in 2006.</p> <p>Mining and processing operations (producing nickel hydroxide and cobalt carbonate). Vale holds 95% of the shares of VNC and the remaining 5% are held by Société de Participation Minière du Sud Caledonien S.A.S. ("<u>SPMSC</u>"). In December 2020, Vale signed a sales option contract for the sale of its 95% stake in VNC. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.</p>	VNC uses a high-pressure acid leaching process to treat saprolytic and limonite lateritic ores. After April 2020, VNC stopped producing nickel oxide, maintaining only the production of the nickel hydroxide cake. Operations have been suspended since December 2020.	Mining concessions with maturity between 2022 and 2051. ⁽⁴⁾	Supplied through the national electricity grid and independent producers.	The products are loaded in containers and transported by truck for approximately 4 km to the port of Prony and shipped in ocean container.
Vale Japan Limited	Japan Matsuzaka	<p>- Autonomous nickel refinery (intermediate and finished nickel) with a nominal capacity of 60,000 metric tons per year of nickel in intermediate products. Vale holds 87.2% of the shares and Sumitomo holds the</p>	<p>It processes PTVI nickel matte to produce nickel oxide (intermediate product) for further processing at Vale refineries in Asia and the United Kingdom, and also refined nickel.</p> <p>-</p>		Supplied through the national power grid. Acquired from regional utility companies.	The products are transported by truck on public highways to customers in Japan. For overseas customers, the products are loaded in containers at the plant and shipped from the ports of Yokkaichi and Nagoya.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
		remaining shares. The refinery was built in 1965 and acquired by Vale in 2006.				
Vale Taiwan Limited	Taiwan Kaoshiung	- Autonomous nickel refinery (refined nickel producer), with a nominal capacity of 18,000 metric tons per year. The refinery started production in 1983 and was acquired by Vale in 2006.	It produced refined nickel for the stainless steel industry (utility nickel), mainly using intermediate products (nickel oxide) from Vale's operations in Matsusaka and New Caledonia. Vale suspended operations at this plant in 2017 due to market conditions and it is currently under care and maintenance.	-	Supplied through the national power grid. Acquired from regional utility companies.	Transported by truck on public highways to customers in Taiwan. For overseas customers, the products are loaded into containers at the plant and shipped through Kaoshiung port.
Vale Nickel (Dalian) Ltd	China Dalian, Liaoning	- Autonomous nickel refinery (refined nickel producer), with a nominal capacity of 32,000 metric tons per year. Vale owns 98.3% of the equity interest and Ningbo Sunhu Chemical Products Co., Ltd. owns the remaining 1.7%. The refinery started production in 2008.	It produced refined nickel for the stainless steel industry (utility nickel), mainly using intermediate products (nickel oxide) from Vale's operations in Matsusaka and New Caledonia. Vale suspended operations at this plant in 2020 due to the shutdown of nickel oxide production in VNC and the plant is currently in care & maintenance.	-	Supplied through the national power grid. Acquired from regional utility companies.	The product is transported by truck on public roads and by rail lines to customers in China. It is also supplied in containers abroad and for some domestic customers.

Mining System / Company	Location	Description / History	Operations	Mining rights	Power source	Access / Transportation
<u>South Atlantic</u> Vale/Onça Puma	Brazil - Ourilândia do Norte, Pará	Mining operation and smelting, producing high quality iron-nickel for application in stainless steel industry.	The Onça Puma mine was built to recover nickel from the saprolite ore deposit. The operation produces ferronickel through the process of rotary electric furnace. Vale is currently operating with a single electric furnace line and two rotor and rotary kiln lines, with a nominal capacity estimated at 27,000 metric tons per year. Vale will evaluate opportunities to restart second-line operations in view of market conditions and associated business cases. For further information, see items 4.3 to 4.7 of this Reference Form.	Mining concession for an indefinite period.	Supplied through the national power grid. Produced directly by Vale or acquired by means of contracts for the purchase and sale of energy.	The ferronickel is transported by truck to the maritime terminal of Vila do Conde, in the Brazilian state of Pará, and exported in ocean containers.

- (1) Vale has submitted requests for renewal of leases in Sudbury maturing in 2020 and the approval process is in progress. All the conditions necessary for the renewal under the Ontario Mining Act have been fulfilled. This process usually takes several years, and Vale can continue to operate while the approval process is in progress.
- (2) Vale is negotiating with the Government of Manitoba to renew and convert the Council Lease Order into mining leases and credits, in accordance with the Manitoba Mining and Minerals Act, the Mineral Leasing and Mineral Determination Regulation of 1992. As part of the negotiation process, the Government of Manitoba extended the leases for the trading period. The renewal of mining rights is expected to be completed by the end of 2021.
- (3) The work agreement between PTVI and the Indonesian government will expire in 2025, after which PTVI will continue its operation in the form of a 10-year commercial license, provided that certain obligations are fulfilled. PTVI may request an additional 10-year extension, provided that it complies with the predefined requirements. Under the work agreement, PTVI has agreed to divest 20% of its shares to Indonesian participants within five years from the issuance of a regulation dated October 2014 (approximately 20% of PTVI's shares are already publicly traded and listed on the Indonesian stock exchange). In October 2020, in compliance with the obligation of disinvestment under the contract of work, Vale Canada and Sumitomo sold to Inalum, a state-owned mining holding company that oversees the state's mining investments, part of its stake in PTVI. After this transaction, Vale started to hold a stake of approximately 45% in PTVI, and Sumitomo approximately 15%. According to a block voting agreement, Sumitomo agreed to follow Vale's votes on relevant operational and financial decisions about PTVI.
- (4) VNC has requested the renewal of some concessions that were scheduled to expire before 2018. All the conditions required for the renewal have been fulfilled. This process usually takes several years, and Vale can continue to operate while the approval process is in progress.

2.1.2 Production

The following table shows Vale's annual production of ore per mine in operation (or on an aggregate basis for the areas of operation in Sulawesi, operated by PTVI, in Indonesia, as it is organized per mining areas instead of individual mines), and the average content of nickel and copper. Mine production in Sulawesi represents the product from the PTVI screening station for the PTVI processing unit and does not include losses of nickel derived from drying and melting

(smelting). For Vale's operations in Sudbury, Thompson and Voisey's Bay, production and average content represent the product shipped to the respective processing plants of these operations and do not include adjustments related to beneficiation, smelting or refining. For the operation of Vale de Onça Puma in Brazil and the operation of VNC in New Caledonia, the production and the average levels represent the local production (*in situ*) of ore and do not include losses during processing.

	2020 ⁽¹⁾			2019 ⁽¹⁾			2018 ⁽¹⁾		
	Content			Content			Content		
	Production	Copper	Nickel	Production	Copper	Nickel	Production	Copper	Nickel
<i>Mines in operation in Ontario</i>									
Copper Cliff North	580	1.49	1.30	644	1.72	1.38	746	1.30	1.29
Creighton	508	2.78	2.60	613	2.67	2.68	608	2.77	2.55
Stobie	-	-	-	-	-	-	-	-	-
Garson	485	1.05	1.52	641	1.32	1.77	655	1.35	2.00
Coleman	1,038	3.41	1.43	1,102	3.80	1.47	618	3.31	1.40
Ellen	-	-	-	-	-	-	-	-	-
Totten	637	1.83	1.31	669	2.08	1.33	710	2.02	1.39
Total operations in Ontario	<u>3,248</u>	<u>2.30</u>	<u>1.58</u>	<u>3,669</u>	<u>2.50</u>	<u>1.68</u>	<u>3,337</u>	<u>2.10</u>	<u>1.70</u>
<i>Mines in operation in Manitoba</i>									
Thompson	691	-	1.93	859	-	1.78	1,034	-	2.05
Birchtree	-	-	-	-	-	-	-	-	-
Total operations in Manitoba	<u>691</u>	<u>-</u>	<u>1.93</u>	<u>859</u>	<u>-</u>	<u>1.78</u>	<u>1,034</u>	<u>-</u>	<u>2.05</u>
<i>Operational mines in Voisey's Bay</i>									
Ovoid	<u>1,588</u>	<u>1.16</u>	<u>2.19</u>	<u>2,116</u>	<u>1.19</u>	<u>2.21</u>	<u>1,895</u>	<u>1.32</u>	<u>2.37</u>
<i>Operational Mines in Sulawesi</i>									
Sorowako ⁽²⁾	<u>4,163</u>	<u>-</u>	<u>1.82</u>	<u>4,286</u>	<u>-</u>	<u>1.89</u>	<u>4,469</u>	<u>-</u>	<u>1.90</u>
<i>Operational mines in New Caledonia</i>									
VNC ⁽²⁾	<u>1,690</u>	<u>-</u>	<u>1.50</u>	<u>2,495</u>	<u>-</u>	<u>1.54</u>	<u>2,620</u>	<u>-</u>	<u>1.46</u>
<i>Operational mines in Brazil</i>									
Onça Puma ⁽³⁾	<u>3,429</u>	<u>-</u>	<u>1.58</u>	<u>321</u>	<u>-</u>	<u>1.40</u>	<u>-</u>	<u>-</u>	<u>-</u>

(1) Production is expressed in thousands of metric tons. The content is in percentage of copper or nickel, respectively.

(2) These figures correspond to 100% of the production and are not adjusted to reflect Vale's ownership. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.

(3) Mining activities and the nickel processing plant in Onça Puma were suspended in September 2017 and June 2019, respectively, and resumed in September 2019.

The following table provides information on the Company's nickel production, including: refined nickel in its facilities and intermediate products for sale. The data below is presented based on the nickel contained per ore source.

		Finished production by source of ore for the year ended December 31,		
Mine	Type	2020	2019	2018
(one thousand metric tons with nickel contained)				
Sudbury	Underground	43.3	50.8	50.6
Thompson	Underground	10.6	11.3	14.8
Voisey's Bay ⁽¹⁾	Open-air	35.7	35.4	38.6
Sorowako ⁽²⁾	Open-air	71.6	68.2	72.1
Onça Puma	Open-air	16.0	11.6	22.9
New Caledonia ⁽³⁾	Open-air	31.0	23.4	32.5
External ⁽⁴⁾	-	6.6	7.3	13.1
Total ⁽⁵⁾		<u>214.7</u>	<u>208.0</u>	<u>244.6</u>

(1) Includes refined nickel produced in Long Harbour, Sudbury and Clydach.

(2) These numbers have not been readjusted to reflect the Company's interest. The Company holds a 44.34% interest in PTVI, which owns the Sorowako mines.

(3) These numbers have not been readjusted to reflect the Company's interest. The Company has a 95.0% stake in VNC. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.

(4) Finished nickel processed at the Company's facilities using resources acquired from third parties.

(5) These numbers do not include processing of feeds to third parties (tolling).

2.1.3 *Customers and sales*

Vale's nickel customers are distributed worldwide. In 2020, 31% of Vale's total refined nickel sales were shipped to customers in Asia, 40% in Europe, 26% in North America, and 3% to other markets. Vale has short-term fixed-volume contracts with customers for the majority of its expected annual nickel sales. These contracts generally provide a steady demand for a significant portion of the Company's annual production.

Nickel is a stock-traded metal, quoted at the London Metal Exchange ("LME") and Shanghai Futures Exchange ("SHFE"), and most nickel products have their price set according to a discount or premium on the LME price, depending mainly on the physical and technical characteristics of the nickel product. Vale's refined nickel products represent what is known in the industry as "primary" nickel, namely nickel produced mainly from nickel ores (as opposed to "secondary" nickel, which is recovered from recycled material containing nickel). Refined primary nickel products are distinguished according to the following characteristics, which determine the price level of the product and its suitability for various end-use applications:

- nickel content and purity level: (i) the intermediate products have various levels of nickel content, (ii) the nickel pig iron has 1.5 to 15% nickel, (iii) the ferronickel (iv) refined nickel with less than 99.8% nickel, including products such as nickel Tonimet™ and Utility™, (v) the standard nickel content of LME has at least 15% to 40% of nickel, 99.8% nickel, and (vi) high purity nickel has at least 99.9% nickel and no specific element impurities;
- form (such as powders, discrete or filamentary strips, discs and pellets);
- size (from micron powder particles to large size cathodes); and
- packaging (such as bulk, 2 ton bags, 250 kg drums, 10 kg bags).

In 2020, the primary first use applications for primary nickel were:

- stainless steel (70% of the world's nickel consumption);
- non-ferrous alloys, steel alloys and smelting (15% of world's nickel consumption);
- nickel coating (6% of world's nickel consumption);
- piles (7% of the world's nickel consumption); and
- other (2% of global nickel consumption).

In 2020, 78% of Vale's refined nickel sales were destined to applications that exclude stainless steel, when compared to the average 30% of the primary nickel industry. This provides greater diversification and stability for sales volumes of Vale's nickel revenues. As a result of Vale's focus on these high-value segments, the average prices of refined nickel have frequently outperformed nickel prices in the LME.

Vale offers sales and technical support to its customers worldwide through an established marketing network, headquartered in Toronto, Canada. Vale has a well-established global marketing network for refined nickel, which is based in Toronto, (Canada). Vale also has sales and technical support distributed worldwide with a presence in Singapore and Toronto (Canada) and sales managers located in St. Prex (Switzerland), Paramus, New Jersey (United States), and several locations in Asia. For more information on pricing and demand, see item 10.2 of this Reference Form.

2.1.4 *Competition*

The global nickel market is highly competitive. Vale's main competitiveness strengths are its long-life mines, its low production costs with respect to other nickel producers, its sophisticated exploration and processing technologies and its diversified product portfolio. Their worldwide

marketing, diversified product mix and technical support direct their products to the applications and geographic regions that offer the largest margins.

Vale's nickel production accounted for 7% of global primary nickel consumption in 2020. In addition to Vale, the largest integrated mine-to-market suppliers of the nickel sector (each with its own integrated facilities, including nickel mining, processing, refining and marketing operations) are Nor Nickel, Glencore, Jinchuan Nonferrous Metals Corporation, Tsingshan Group and Jiangsu Delong Nickel. Together with Vale, these companies accounted for approximately 44% of the world production of refined primary nickel in 2020.

The quality of nickel products determines their suitability for the market. Superior Class I products, which have a higher nickel content and lower levels of deleterious elements, are more suitable for high-quality nickel applications, such as use in specialized industries (for example, aircraft and spacecraft) and obtain a highest premium. Lower Class I products have slightly higher levels of impurities compared to superior Class I products and are more suitable for more general nickel applications, such as foundry alloys, and generally receive a lower premium compared to higher Class I products. Class II products, which have a lower nickel content and higher levels of deleterious elements, are mainly used in the manufacture of stainless steel. Intermediate products do not represent finished nickel production and are usually sold at a discount, as they still need to be processed before being sold to end customers.

Most of the world's nickel production is comprised of Class II nickel products (59% of the global market in 2020), which include nickel pig iron (NPI, with a nickel content below 15%). Most of the Company's products are high-quality nickel products, which makes Vale the preferred supplier for special nickel applications. In 2020, 68% of its nickel products were Class I, 24% were Class II, and 8% were intermediate.

Although stainless steel production is an important factor in global nickel demand, stainless steel producers can use nickel products with a wide variety of nickel content, including secondary nickel (scrap). The choice between primary and secondary nickel is mainly based on their relative prices and availability. For more information on pricing and demand, see item 10.2 of this Reference Form.

The competition in the nickel market is mainly based on quality, reliability of supply and price. Vale believes its operations are competitive in the nickel market because of the high quality of its nickel products and its relatively low production costs.

2.2 Copper

2.2.1 *Operations*

Vale carries out its copper operations in Brazil through the parent company (Vale S.A.) and in Canada through its subsidiaries.

Mining complex / Local	Location	Description / History	Mineralization / Operations	Mining Title	Power source	Access / Transportation
<u>Brazil</u> Vale/Sossego	Carajás, State of Pará	Two main copper mineral bodies, Sossego and Sequeirinho and a processing facility to concentrate the ore. Sossego was developed by Vale. Production began in 2004 and has a	Copper ore is explored by the open-pit mine method and the run-of-mine ore is processed by primary crushing and conveying, SAG grinding (a semiautogenous mill that utilizes a large rotating	Mining concession for an indefinite period.	Supplied through the national power grid. Produced directly by Vale or acquired by means of	The concentrate is transported by truck to the storage terminal in Parauapebas and then transported by the Carajás Railroad (EFC) to the port of Itaqui, in São Luís, in the state of

Mining complex / Local	Location	Description / History	Mineralization / Operations	Mining Title	Power source	Access / Transportation
		nominal capacity of approximately 93,000 tonnes per year (tpa) of copper concentrates.	drum filled with ore, water and steel shredding spheres that transform the ore into a thin paste), grinding in ball mills, copper concentrate flotation, waste disposal, concentrate thicker, filtration and discharge.		contracts for the purchase and sale of energy.	Maranhão. Vale has built a 85 km road to connect Sossego to Parauapebas.
Vale/Salobo	Carajás, State of Pará	The Salobo I processing plant began production in 2012 and has a total capacity of 12 Mtpy of processed ore. The open-pit mine and plant completed their ramp-up in the fourth quarter of 2016 and reached a capacity of 24 Mtpy of ore processed with the full implementation of the Salobo II expansion. Salobo I and II have a total capacity of approximately 197,000 tpy of copper concentrates.	Vale's Salobo copper mine is exploited by the open-pit mine method and the run-of-mine ore is processed by standard primary and secondary crushing, conveying, roller pressing milling, ball milling, copper concentrate fluctuation, waste disposal, concentrate thicker, filtration and discharge.	Mining concession for an indefinite period.	Supplied through the national power grid. Acquired by means of energy purchase contracts.	The concentrate is carried by truck to the storage terminal in Parauapebas and then transported by the Carajás Railroad (EFC) to the port of Itaqui, in São Luís, in the state of Maranhão. Vale built a 90-kilometer road to connect Salobo to Parauapebas.
<u>Canada</u>						
Vale	Canadá	Canada Sudbury, Ontario	—	See - 2. Base metals - 2.1. Nickel - 2.1.1. Operations of this Reference Form.		
Vale Canada/Voisey's Bay	Canada	Voisey's Bay, Newfoundland and Labrador	—	See - 2. Base metals - 2.1. Nickel - 2.1.1. Operations of this Reference Form.		

2.2.2 Production

The following table presents information on annual ore production at Vale's Salobo and Sossego mines and the average percentage copper content. The production and the average contents represent the local production (in-situ) of ore without including the losses during the processing. For annual copper production as a by-product of nickel operations, see item 2. Base metals - 2.1. Nickel - 2.1.1. Operations of this Reference Form.

	2020 ⁽¹⁾		2019 ⁽¹⁾		2018 ⁽¹⁾	
	Production	Content	Production	Content	Production	Content
<i>Brazil</i>						
Sossego	13,145	0.85	11,735	0.79	15,664	0.72
Salobo	43,151	0.68	48,468	0.69	50,963	0.69
Total	56,296	0.72	60,202	0.71	66,627	0.70

(1) The production is expressed in thousands of metric tons. The content is in percentage of copper.

The following table gives information about the Company's copper production.

		Finished production by source of ore for the year ended December 31,		
Mine	Type	2020	2019	2018
(thousand metric tons)				
<i>Brazil:</i>				
Sossego.....	Open-air	87.7	65.5	92.2
Salobo.....	Open-air	172.7	189.4	192.6
<i>Canada:(as by-product of nickel operations)</i>				
Sudbury.....	Underground	76.5	92.8	72.3
Voisey's Bay.....	Open-air	17.8	25.0	25.7
Thompson	Underground	0.8	0.9	1.3
External ⁽¹⁾	-	4.5	7.5	11.3
Total.....		360.1	381.1	395.5

(1) Vale processes copper in its facilities using inputs acquired from third parties.

2.2.3 Customers and sales

Copper in Sossego and Salobo concentrate is sold under medium- and long-term contracts entered into with copper smelters in Europe, India and Asia. Vale maintains medium-term copper supply contracts with domestic customers, for part of the copper concentrates and copper matte produced in Sudbury, which are also sold under long-term contracts in Europe and Asia. Copper concentrates from Voisey's Bay are sold under medium- and long-term contracts to customers in Europe and electrolytic copper cathodes from Sudbury and Long Harbor in North America under short-term sales contracts.

2.2.4 Competition

The global refined copper market is highly competitive. Producers are integrated mining companies and non-integrated smelters, covering all regions of the world, while consumers are mainly producers of copper wires and alloys. Competition occurs mainly at the regional level and is mainly based on production costs, quality, reliability of supply and logistics costs. The world's largest producers of copper cathode are Jiangxi Copper Corporation Ltd., Corporación Nacional del Cobre de Chile ("[Codelco](#)"), Tongling Non - Ferrous Group Co., Tongling Non - Ferrous Metals Group Co. and Freeport-McMoRan Copper & Gold Inc. ("[Freeport-McMoRan](#)"), Aurubis AG and Glencore, each operating at the parent company level or through subsidiaries. Vale's participation in the global refined copper cathode market is marginal, as Vale assumes a more competitive position in the copper concentrate market.

Copper and matte copper concentrate are intermediate products in the copper production chain. The concentrate and matte markets are competitive, with several producers, but fewer participants and smaller volumes than in the copper cathode market, due to the high levels of integration of large copper producers.

In the copper concentrate market, mining takes place globally, with a predominant participation in South America, while consumers are local smelters mainly located in Europe and Asia. Competition in the copper concentrate market occurs primarily at the global level and is based

on production costs, quality, logistics costs and reliability of supply. The largest competitors in the copper concentrate market are Freeport McMoRan, Glencore, BHP Billiton, Codelco, Anglo American, Antofagasta plc, Rio Tinto and First Quantum, operating at the level of the parent company or through subsidiaries. Vale's market share in 2020 was about 2% of the total copper concentrate market.

2.3 PGMs and other precious metals

As by-products of Vale's nickel operations in Sudbury, Canada, significant amounts of platinum group metals ("PGMs"), are retrieved, as well as small amounts of gold and silver. Vale operates a processing facility in Port Colborne, Ontario, which produces intermediate PGMs, gold and silver products using inputs from its Sudbury operation. The PGM concentrates of the Company's Port Colborne operation are being sold to third parties. Gold and silver intermediate products are also sold to third parties. The copper concentrates from the Company's Salobo and Sossego mines in Carajás, in the State of Pará, Brazil, also contain gold, the value of which is considered in the sale of these products.

In February 2013, the company sold to Wheaton Precious Metals (formerly Silver Wheaton) ("Wheaton") 25% of the gold produced as a by-product in its copper mine in Salobo, Brazil, throughout the lifetime of this mine, and 70% of the gold produced as a by-product in Their nickel mines from Sudbury, Canada, for 20 years. In March 2015 and August 2016, the Company sold to Wheaton an additional 25% of gold produced as a by-product of its Salobo copper mine. In consideration of the sale in August 2016, Vale received an initial cash payment of USD 800 million, an option value of approximately USD 23 million from a reduction in the exercise price of the Wheaton's subscription warrants held by Vale since 2013, and successive payments of USD 400 per ounce (subject to an annual adjustment for inflation of 1%, from January 1, 2019) and the prevailing market price, whichever is less, for each ounce of gold it delivers under the contract. The Company may also receive an additional payment in cash, depending on its decision to expand the copper processing capacity at Salobo for additional 28 Mtpy before 2036. The additional cash payment can range from USD 113 million to USD 953 million, depending on the ore content, time and size of the expansion. According to the Goldstream contract, Wheaton received 290,000 ounces of gold in 2019. In February 2020, the Company sold all of its Wheaton's subscription warrants (equivalent to 10,000,000 common shares) for USD 2.5 per warrant, totaling USD 25 million. For additional information on the contracts entered into with Wheaton Precious Metals and Silver Wheaton (Caymans) Ltd., see items 6.3 and 6.6 of this Reference Form.

The following table provides information on the contained volume of precious metals and platinum group metals (PGMs) as by-products of the production of copper and nickel concentrates.

Fiscal year ended December 31,				
Mine	Type	2020	2019	2018
		(thousands of troy ounces of contained metal)		
<u>Sudbury</u> ⁽¹⁾ :				
Platinum	Underground	140	148	135
Palladium	Underground	186	182	218
Gold ⁽²⁾	Underground	70	69	57
<u>Salobo</u> :				
Gold ⁽²⁾	Open-air		368	361
		331		
<u>Sossego</u> :				
Gold	Open-air	68	43	59

- (1) Includes metal produced from the purchase of third-party inputs. Includes production from Ontario (Canada) and Acton (England). Does not include charges for third-party fees.
- (2) The figures represent 100% of the gold volume of Salobo and Sudbury as a by-product of the production

of nickel and copper concentrates and do not deduct the gold portion sold to Wheaton.

2.4 Cobalt

Vale has recovered significant amounts of cobalt as a by-product of its nickel operations. In 2020, Vale produced 878 metric tons of refined cobalt metal (in the form of cobalt rounds) at its Port Colborne refinery, 1,582 metric tons of cobalt rounds at its Long Harbor refinery, 2,197 metric tons of cobalt in a cobalt-based intermediate product from New Caledonia. Vale sells cobalt globally. Long-Harbor cobalt metal and cobalt rounds are refined by electrical process at Port Colborne refinery and have very high purity levels (99.8%), fulfilling the specification of the LME contract. Cobalt metal is used in the production of various alloys, especially in aerospace applications, as well as in the manufacture of cobalt-based chemicals.

In June 2018, the Company sold to Wheaton and Cobalt 27 Capital Corp. ("Cobalt 27") a combination of 75% of the cobalt produced as a by-product at the Voisey's Bay mine as of January 1, 2021, which includes the slowdown in the production of the existing mine and the production of the mine's useful life from its underground mine expansion project. The Company, on the other hand, received USD 690 million in cash from Wheaton and Cobalt 27 at the close of the transaction on June 28, 2018, and will receive additional payments of 20%, on average, of cobalt prices at the time of delivery. Vale remains exposed to approximately 40% of Voisey's Bay's future cobalt production, through its retained interest in 25% of cobalt production and additional payments at the time of delivery. Furthermore, the Company plans to start selling its cobalt flows in 2021, once the current sales are concluded. For more information, see items 6.3 and 6.6 of this Reference Form.

The following table provides information on cobalt production.

Mine	Type	Finished production by source of ore for the year ended December 31,		
		2020	2019	2018
		(metric tons contained)		
Sudbury	Underground	453	495	520
Thompson	Underground	60	80	198
Voisey's Bay	Open-air	1,591	1,608	1,902
New Caledonia	Open-air	2,198	1,703	2,104
Other ⁽¹⁾	—	369	490	371
Total		4,672	4,376	5,093

(1) These numbers do not include processing of inputs for third parties (toiling). Includes cobalt processed at Vale's facilities using inputs purchased from unrelated parts and PTVI ore source, 173 metric tons in 2018, 313 metric tons in 2019, and 233 metric tons in 2020.

3. Coal

3.1 Operations

Vale produces metallurgical and thermal coal through its subsidiaries Vale Mozambique, which operates the Moatize mine.

Company / Mining Complex	Site	Description / History	Mineralization / Operations	Mining Title	Power source	Access / Transportation
Mozambique Vale Mozambique						

Company / Mining Complex	Site	Description / History	Mineralization / Operations	Mining Title	Power source	Access / Transportation
Moatize	Tete, Mozambique	Open-pit mine, developed directly by Vale. Operations began in August 2011 and are expected to reach a nominal production capacity of 22 Mtpy, considering the expansion of Moatize, comprising metallurgical coal and thermal coal, and the expansion of the Nacala Logistic Corridor. Vale has an indirect stake of 80.75%, Mitsui has an indirect stake of 14.25% and the remainder is owned by Empresa Moçambicana de Exploração Mineira, S.A.. In January 2021, Vale signed a Preliminary Agreement ("HOA") with Mitsui to structure Mitsui's departure from Vale Mozambique and Nacala Logistics Corridor ("NLC"). For further information, see item 7.9 of this Reference Form.	It produces metallurgical and thermal coal. Moatize's main products are the MLV premium hard cooking coal and Mabu hard cooking coal, but there is operational flexibility for various products. The ideal product portfolio will be a result of market evaluations. The beneficiation of coal from the mines is currently made at a coal processing plant ("CHPP") with a capacity of 4,000 metric tons per hour. An additional CHPP had its production started in August 2016, which increased capacity by an additional 4,000 metric tons per hour.	Mining concession expiring in 2032, which may be extended for an additional period of 25 years, subject to approval by the government of Mozambique.	Provided by a local service company. Additional supply on site.	The coal is transported from the mine to the port of Nacala-a-Velha through the Nacala Logistics Corridor.

3.2 Production

The table below presents the information on Vale's marketable coal production.

Operation	Type of Mine	Production in the year ended December 31,		
		2020	2019	2018
(thousand metric tons)				
Metallurgical Coal:				
Moatize ⁽¹⁾	Open-air	3,095	4,032	6,161
Thermal Coal:				
Moatize ⁽¹⁾	Open-air	2,783	4,738	5,444

(1) These figures correspond to the production of 100% of Moatize and are not adjusted to reflect Vale's share.

3.3 Customers and sales

Coal sales from Vale's Moatize operations, in Mozambique, target the global steel and energy markets, including Asia, Africa, Europe and the Americas. Vale's office in India supports coal sales to the Indian market.

3.4 Competition

The global coal industry comprises the metallurgical and thermal coal markets and is highly competitive.

Demand for steel, especially in Asia, sustains demand for metallurgical coal, while demand for electricity supports the demand for thermal coal. Competition in the coal industry is mainly based on the economics of production costs, coal quality, transport costs and proximity to the market. The main competitive advantages of Vale are the new and competitive transport corridor and the size and quality of its reserves. The logistics facilities in Mozambique help the Company to ensure that its products are delivered on time and at a relatively low cost compared to long delays in the ports of Queensland, Australia, and the East Coast of the United States. The properties of the Company's metallurgical coal make its product highly competitive.

Vale's main competitors in the metallurgical coal business are located in Australia and Canada and include subsidiaries, affiliates and joint ventures of BHP Billiton, Glencore, Anglo American, Peabody, Jellinbah Resources, among others. In the thermal coal business, the Company's main competitors are located in Indonesia, South Africa, Australia, Colombia, USA and Russia and include subsidiaries and joint ventures of Glencore, Anglo American, Drummond Co, Pt Bumi Resources and PT Adaro, among others.

4. **Infrastructure Related to the Company's Business**

4.1 Logistics

Vale has developed the logistics segment based on the transportation needs of the mining operations and also provides transportation services to customers.

Vale operates its logistics business in the group's parent company (Vale S.A.), through subsidiaries and joint ventures, as shown in the table below.

Company	Business	Location	Vale's interest		Partners
			Voting (%)	Total	
Vale	Railway (EFVM and EFC) and port operations and at marine terminals	Brazil	–	–	–
VLI ⁽¹⁾	Railway and port operations at land and sea terminals. Detention of certain general cargo logistics assets	Brazil	29.6	29.6	FI-FGTS, Mitsui and Brookfield, and BNDESPar
MRS	Railway operations.	Brazil	47.61	48.2	CSN, CSN Mineração, Usiminas Participações e Logísticas, Gerdau and public investors
CPBS	Operations of maritime and port terminals	Brazil	100.0	100.0	–
PTVI	Operations of maritime and port terminals	Indonesia	44.34	44.34	Sumitomo, Inalum, public investors
Vale Logística Uruguay	Port Operations	Uruguay	100.0	100.0	–

Company	Business	Location	Vale's interest		Partners
			Voting (%)	Total	
Central East African Railways ("CEAR") ⁽²⁾	Railroad	Malawi	46.2	46.2	Mitsui, Investors
Northern Development Corridor ("CDN") ⁽²⁾	Railroad	Mozambique	46.2	46.2	Mitsui, Investors
Northern Development Corridor – Port ("CDN Port") ⁽²⁾ ...	Operations of Maritime and port terminals	Mozambique	46.2	46.2	Mitsui, Investors
Corredor Logístico Integrado de Nacala S.A. ("CLN")	Railway and port operations	Mozambique	50.0	50.0	Mitsui
Vale Logistics Limited ("VLL") ⁽³⁾	Railway operations	Malawi	50.0	50.0	Mitsui
Transbarga Navegación VNC	River System in Paraguay and Paraná (Convoys)	Paraguay	100.0	100.0	-
	Operations of maritime and port terminals	New Caledonia	95.0	95.0	SPMSC
VMM	Operations of maritime and port terminals	Malaysia	100.0	100.0	-
Vale Newfoundland & Labrador Limited	Port Operations	Voisey's Bay and Long Harbor in Newfoundland and Labrador	100.0	100.0	-
Vale Oman Distribution Center LLC	Operations of maritime and port terminals	Oman	100.0	100.0	-

(1) BNDES fully exercised its option to purchase VLI shares held by Vale, pursuant to the VLI Stock Option Agreement, corresponding to 8% of VLI's share capital.

(2) Vale holds its stake in CEAR, CDN and CDN Porto through a 50.0% stake in Nacala Corridor Holding Netherlands B.V., which indirectly holds 92.4% of these operating companies that make up the NLC.

(3) Vale holds its interest in CLN and VLL through a 50.0% interest in Nacala Corridor Holding Netherlands B.V, which indirectly holds 100% of these operating companies that make up NLC.

4.1.1 Railroads

- Brazil

- *Vitória Minas Railroad ("EFVM")*. The EFVM railroad connects Vale's mines from the Southeastern System in the region of the Iron Quadrangle, in the state of Minas Gerais, to the port of Tubarão, in Vitória, Espírito Santo. Vale operates this 888-kilometer railway under a concession agreement, which was recently renewed and will expire in 2057. The EFVM consists of two lines that extend over a distance of 584 km, allowing continuous displacement in opposite directions, and a singular extension of 304 km. There are manufacturing industries located in this area and important agricultural regions are also reached by it. VLI has rights to purchase railway transport capacity on the EFVM line. In 2020, the EFVM railway transported 62,385 thousand tons of iron ore and 20,929 thousand tons of other cargo. The EFVM Railroad also carried 0,3 million passengers in 2020. In 2020, Vale had a fleet of 328 locomotives and 19,145 wagons at EFVM, operated by Vale and outsourced companies.
- *Carajás Railroad ("EFC")*. EFC connects Vale's mines from the Northern System, in the Carajás region of Pará, to the Ponta da Madeira maritime terminal in São Luís, Maranhão. Vale operates the EFC railroad under a concession agreement

that was recently renewed and will expire in 2057. The EFC extends over 997 km from Vale's Carajás mines to its Ponta da Madeira maritime terminal complex. The main cargo is iron ore, transported mainly to the Company. VLI has the right to purchase rail transport capacity on the Vale's EFC railroad. In 2020, the EFC railroad transported 192,381 thousand tons of iron ore and 13,887 thousand tons of other cargo. The EFC also carried 145,000 passengers in 2020. EFC operates the train with the largest capacity in Latin America, which measures 3.5 km in length and has a gross weight of 41.67 thousand metric tons, when loaded, and has 330 wagons. In 2020, the EFC had a fleet of 229 locomotives and 22,185 wagons, which were operated Vale and outsourced.

Vale has entered into amendments to the concession agreements of EFVM and EFC, in order to formalize the renewals of concessions that would expire in 2027 for an additional period of 30 years. The Company has made total commitments estimated at present value of BRL 12.016 billion (USD 2.312 billion) to be fulfilled by 2057, of which (i) BRL 2.818 billion (USD 0.5 billion) refer to the payment of grants; (ii) BRL 7.826 billion (USD 1.506 billion) are related to the infrastructure works to be carried out by us in the Midwest Integration Railway (FICO) and West-East Integration Railway (FIOL); and (iii) BRL 1.372 billion (USD 0.3 billion) are related to other commitments, including the expansion of passenger train services and works to reduce urban conflicts.

The main loads of EFVM and EFC railroads are:

- iron ore, pellets and manganese ore, transported to the Company and its customers;
- steel, coal, pig iron, limestone and other raw materials transported to customers with steel mills located along the railroad;
- agricultural products such as grains and soybean meal and fertilizers; and
- other loads in general, such as cellulose, fuels and chemicals.

Vale charges market prices for freight to customers, including iron ore pellets from joint ventures and other companies in which Vale does not have a shareholding interest of 100%. Market prices vary according to the distance travelled, the type of product transported and other criteria, subject to price limits established in the relevant concession agreements, and are regulated by the National Land Transportation Agency ("ANTT").

VLI. VLI provides integrated logistics solutions along 7,940 km of railroads in Brazil, (Center-Atlantic Railway and North-South Railway) eight land terminals with total storage capacity of 795,000 tons and three marine terminals and port operations. Vale has a 29.6% interest in VLI and is part of a shareholders agreement with FI-FGTS, Mitsui, BNDESPar, and Brookfield, which hold the remaining equity interest in VLI.

The main assets of VLI are:

- *Ferrovias Centro-Atlântica S.A. ("FCA").* Regional railway network of the central-east of the Brazilian railway system under a 30-year renewable concession, which will end in 2026. The center-east network has 7,220 km of rails, which extend through the states of Sergipe, Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro, Goiás and the Distrito Federal;
- *Ferrovias Norte-Sul S.A. ("FNS").* A 30-year renewable subconcession for the commercial operation of a 720 km stretch of the North-South railway in Brazil between the cities of Açailândia, in the Brazilian state of Maranhão, and Porto Nacional, in the Brazilian state of Tocantins. This railroad is linked to the EFC, creating a new corridor for the transport of general cargo, mainly for the export of soybean, rice and corn, produced in the north-central region of Brazil.

- The right to use Vale's railway capacity of EFVM and EFC for general cargo; and
- The right to use capacity and transport of the terminals of Vale, Tubarão and Praia Mole for general cargo.

In 2020, VLI transported a total of 40.8 billion tku of general cargo, including 22.5 billion tku of the FCA and the FNS and 18.3 billion tku through operating agreements with Vale.

MRS Logística S.A. ("MRS"). MRS's railroad, in which Vale holds a shareholding of 48.16%, is 1,643 km long and connects the states of Rio de Janeiro, São Paulo and Minas Gerais. The MRS railway transports Vale's iron ore products from the Southern System mines to its maritime terminals. In 2020, the railway carried a daily average of 261,4 thousand metric tons of iron ore and 175,3 thousand metric tons of other cargoes.

- Africa

Nacala Logistics Corridor ("NLC"). The NLC links the Moatize mine to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique, and through the Republic of Malawi. The NLC consists of a railroad and port infrastructure, including greenfield stretches and rehabilitation of existing railroads in Mozambique and Malawi and a new port coal terminal in Mozambique. The NLC transports coal products from the Moatize Mine company to its maritime terminal and supports Vale's operations in southern Africa. Nacala Corridor Holding Netherlands B.V., a joint venture in which Vale holds a 50% stake, operates NLC through certain operating companies, as described below:

- In Mozambique, Corredor Logístico Integrado de Nacala S.A. ("CLN") operates under two concession contracts, one related to the Mozambican greenfield railway line and the other related to the new built coal port, which will expire in 2043, subject to renewal. The Northern Development Corridor ("CDN") operated under a concession that will expire in 2035.
- In Malawi, Vale Logistics Limited ("VLL") operates under a concession that will expire in 2046, subject to renewal, and Central East African Railways ("CEAR") operates under a concession that will expire in 2046.

In 2020, NLC transported a daily average of 16.07 thousand tons of coal and 1.15 thousand tons of other cargo. NLC also carried 383.5 thousand passengers in 2020. In 2020, CLN operated a fleet of 101 locomotives and 2,677 wagons at NLC.

4.1.2 Ports and maritime terminals

- Brazil

Vale operates seaports and maritime terminals, mainly as a means of completing the delivery of its iron ore and iron ore pellets to bulk carriers serving the transoceanic market. For more information, see the item 1.1 "Iron ore and pellets" in this section of the Reference Form. Vale also uses its port and its terminals to move loads of customers.

Port of Tubarão Praia Mole. The Port of Tubarão, which occupies an area of about 18 square kilometers, is situated in the state of Espírito Santo and contains the iron ore maritime terminal and the general cargo terminals (the Liquid Bulk Terminal, and the Miscellaneous Products Terminal). The port of Praia Mole is also located in the Brazilian state of Espírito Santo.

- The iron ore ferry terminal has two piers. From this terminal in the Port of Tubarão, Vale exports mainly iron ore produced in its Southeastern System. Pier I can keep two ships docked at the same time, one up to 170,000 DWT, on the south edge, and another up to 210,000 DWT, on the north edge. Pier II can serve a vessel of up

to 405,000 DWT at a time, with depth limited to 23 meters below the waterline. At Pier I, there are two ship loaders that can carry up to 13,500 metric tons per hour each. At Pier II, there are two ship loaders that are able to operate alternately and can load up to 16,000 metric tons per hour continuously. The iron ore terminal has a storage yard with a capacity of 2.9 million metric tons. In 2020, Vale embarked on 48.8 million metric tons of iron ore pellets at this terminal.

- The miscellaneous product Terminal moved 6,643 million metric tons of grains and fertilizers in 2020. VLI has the right to purchase the handling capacity of the Miscellaneous Product Terminal.
- The Liquid Bulk Terminal handled 736 million metric tons of fuel in 2020. VLI has the right to purchase the handling capacity of the Liquid Bulk Terminal.
- The Praia Mole Terminal is mainly a coal terminal and handled, in 2020, 9.969 million metric tons of coal and other associated loads. VLI has the right to purchase the Praia Mole Terminal's handling capacity.

Ponta da Madeira Maritime Terminal. Vale's Ponta da Madeira Maritime Terminal is located in the Brazilian state of Maranhão. Pier I can accommodate ships up to 420,000 DWT and has a maximum loading rate of 16,000 metric tons per hour. The pier III, with two anchorages and three loaders, can accommodate ships up to 210,000 DWT in its south cradle and 180,000 DWT in its north cradle (or two ships of 180,000 DWT simultaneously), depending on the tide conditions, with maximum loading rate of 8,000 Metric tons/hour in each loader. Pier IV (south cradle) is able to accommodate ships up to 420,000 DWT and has two ship loaders that work alternately with a maximum loading rate of 16,000 tonnes per hour. Pier IV (north cradle) is able to accommodate ships up to 420,000 DWT and has two ship loaders that work alternately with a maximum loading rate of 16,000 tonnes per hour. In 2018, Vale received from the Brazilian tax authorities the customs authorization for the operations of Pier IV (north cradle). The cargo shipped through the Ponta da Madeira maritime terminal consists of the production of Vale's iron ore, pellets and manganese from the Northern System. In 2020, 191.2 million metric tons of iron ore, pellets and manganese were shipped through the terminal. The maritime terminal of Ponta da Madeira has a storage yard with static capacity of 7.2 million tons.

Itaguaí Maritime Terminal - Cia. Portuária Baía de Sepetiba ("CPBS"). From this terminal, Vale exports mainly iron ore from its Southern System. CPBS is a wholly-owned subsidiary that operates the Itaguaí terminal in the Port of Itaguaí, in Sepetiba, in the state of Rio de Janeiro, leased from the Companhia Docas do Rio de Janeiro - CDRJ. The Itaguaí maritime terminal has a wharf that allows loading of vessels of up to 17.8 meters of draft and up to approximately 200,000 DWT of capacity. In 2020, the terminal carried 15.1 million metric tons of iron ore.

Ilha Guaíba Maritime Terminal. From this terminal, Vale exports mainly iron ore from the Southern System. Vale operates a maritime terminal on Guaíba Island, in Sepetiba Bay, in the state of Rio de Janeiro. The iron ore terminal has a pier, with two berths, that allows ships to load up to 350,000 DWT. In 2020, the terminal carried 23.7 million metric tons of iron ore.

VLI also operates the Inácio Barbosa maritime terminal (TMIB), owned by Petrobras, in the State of Sergipe; the Santos maritime terminal (TIPLAM), in the State of São Paulo, which is jointly owned by VLI, Vale and Mosaic; and Beth 105 of the Port of Itaquí.

- Uruguay

Since October 2017, the subsidiary Vale Logística Uruguay S.A. ("VLU") has contracted third-party services to operate the port terminal of Corporación Navios in the Free Zone of Nueva Palmira in Uruguay. The port terminal provides facilities for unloading, storing, weighing and loading of bulk materials from Corumbá, Brazil, by fluvial barge for transshipment to ocean ships destined for

the Brazilian, Asian and European markets. In 2020, Vale handled 1.2 million tons of iron and manganese ore through the Corporación Navios port.

- Canada

Vale Newfoundland & Labrador Limited operates a port as part of its mining operation in Voisey's Bay, Labrador, and a port as part of its processing operation in Long Harbor, Newfoundland. The port of Voisey's Bay is used for shipment of nickel and copper concentrates and refueling. The Port of Long Harbor is used to receive Voisey's Bay nickel concentrate along with the goods and materials required for the Long Harbor operation.

- Oman

Vale Oman Distribution Center LLC is part of the Oman Industrial Complex and operates a mixing and distribution center in Liwa, Sultanate of Oman. The maritime terminal has a large deepwater pier, a platform 600 meters long connected to the coast by a 700 meter long pier, and integrated into a storage yard with transfer capacity for handling 40 Mtpy of iron ore and iron ore pellets per year. The nominal load capacity is 10,000 metric tons per hour and the nominal discharge capacity is 9,000 metric tons per hour.

- Indonesia

PTVI owns and operates two ports in Indonesia that support its nickel mining activities.

- The special port of Balintang is located in the village of Balintang, in the southern region of Sulawesi, with two types of docks and total capacity of 12,000 DWT: two resources for barges with capacity of up to 5,000 DWT each for dry bulk and a pier for general cargo Intended for ships up to 2,000 DWT.
- The special port of Tanjung Mangkasa is located in the village of Lampia, in the southern region of Sulawesi, with mooring boys that can accommodate ships with capacity of up to 20,000 DWT, and a terminal that can accommodate tankers with capacity of up to 5,000 DWT, totalling a capacity of 25,000 DWT.
- New Caledonia

Vale owns and operates a port in Prony Bay, Southern Province, in New Caledonia. This port has three terminals, including a passenger ferry terminal capable of docking two ships up to 50 meters long, a pier for dry carriers where ships up to 58,000 DWT can unload at a rate of 8,000 tons per day and a wharf for general cargo where ships up to 200 meters long can dock. The dock for general cargo is able to handle containers at a rate of seven containers per hour and liquid fuels (liquefied petroleum gas, heavy fuel oil and diesel) at a rate of 350 cubic meters per hour, and fractionated load. The port's container yard, with an area of approximately 13,000 square meters, can accommodate up to 1,300 units. A bulk storage yard is linked to the port by a carrier and has a storage capacity of 94,000 metric tons of limestone, 95,000 metric tons of sulfur and 60,000 metric tons of coal. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.

- Malaysia

The Teluk Rubiah Marine Terminal ("TRMT") is located in the State of Perak, Malaysia, and has a pier with two anchorages that allows the unloading of ships with a capacity of approximately 400,000 DWT and loading of ships with a capacity of up to 220,000 DWT. In 2020, the terminal discharged 17.1 million metric tons of iron ore and carried 17.1 million metric tons of iron ore.

4.1.3 *Transportation*

Shipping of iron ore and pellets

In 2020, Vale shipped approximately 262 million tons of iron ore and pellets in transactions in which it was responsible for transportation. Vale has embarked on a large quantity of its iron ore products from Brazil to Asia through long-term charter contracts with very large ore carriers ("VLOCs"). These vessels reduce energy consumption and greenhouse gas emissions by transporting a larger amount of cargo on a single trip, providing lower transport costs. In 2020, approximately 106 million metric tons of iron ore products were transported under long-term chartering contracts on VLOCs of 400,000 DWT and 325,000 DWT.

In light of the IMO regulation that limits global sulfur emissions to 0.5%, which came into force in January 2020, Vale has negotiated the installation of scrubbers in most of its dedicated fleet. These scrubbers will allow the Company to continue supplying fuel oil with a high sulfur content, while complying with the new regulation. The Company expects that 97% of its dedicated fleet will be equipped with scrubbers by the end of 2022.

In January 2020, following a new approach to risk management, Vale decided to discontinue or replace all converted vessels involved in its cargo transportation, either through early termination of, or amendment to, the contracts. Competitiveness in freight is preserved through long-term contracts with shipowners for the use of more efficient and modern vessels, such as Valemax and Guaibamax.

Paraná - Paraguay Waterway System

Through its subsidiary Transbarge Navegação and other chartered fleets, Vale transports iron ore and manganese from the waterway system of the Paraná and Paraguay rivers. The barges are unloaded at the terminals of local Vale customers in Argentina or at a terminal contracted in the Free Zone of Nueva Palmira, Uruguay, where Vale carries the ore on oceanic vessels. Vale transported 1.34 million tons through the waterway system in 2020, including 0,45 million tons of ore through the terminals of its local customers and 0,89 million tons of ore through a port in Uruguay.

Tugboats

Vale manages its own fleet of 14 tugboats. Vale operates directly 5 tugboats in the ports of Itaguaí and Mangaratiba, in the Brazilian state of Rio de Janeiro. Vale also has 2 tugboats in New Caledonia.

4.2 *Energy*

Vale develops its energy assets based on the current and future energy needs of its operations, for the purpose of reducing costs, minimizing risks, and at the same time meeting consumption through renewable sources.

- Brazil

The management and effective energy supply in Brazil are priorities for Vale, given the uncertainties associated with changes in the regulatory environment and the risks of tariff increases. In 2020, Vale's installed capacity in Brazil was 1.8 GW, from power plants directly and indirectly controlled. Vale uses the electricity produced by these plants to meet their internal consumption needs. Currently, Vale has a direct stake in three hydroelectric plants and three small hydroelectric plants in operation. The Candonga hydroelectric power plant, whose operations remain suspended since November 2015 due to the Samarco tailings dam breach is located in the Southeastern region, the Machadinho plant in the Southern region, and the Estreito plant in the Northern region. The small hydroelectric power plants of Mello, Glória and Nova Maurício are located in the Southeast region. Through its interest of 55% in Aliança Geração de Energia S.A. ("Aliança Geração"), Vale also holds indirect interests in the hydroelectric power plants of Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I and Capim Branco

II, located in the Southeast Region and, additionally, the Company has indirect interest in Santo Inácio, a wind complex located in the state of Ceará, which started operations in December 2017. Part of the energy generated by these assets is provided to Vale's operations through energy purchase agreements with Aliança Geração.

Vale also has an indirect interest of 4.59% in the share capital of Norte Energia S.A. ("Norte Energia"), a company incorporated to develop and operate the Belo Monte hydroelectric plant in the Brazilian state of Pará State, which started its operations in April 2016 and completed commissioning of the last of its 24 turbines in 2019. Vale's interest in the Belo Monte project confers the right to acquire 9% of the electricity generated by the plant, which had already been contracted through a long-term energy purchase agreement entered into with Norte Energia.

To achieve electricity self-sufficiency in Brazil by 2025 and increase renewable energy sources, in addition to the Sol do Cerrado project, announced in December 2020, Vale signed a long-term energy supply contract for 20 years. The energy will be supplied by the Folha Larga Sul wind farm, a 151.2 MW project in Campo Formoso, Bahia, Brazil. This project went into commercial operation in the second half of 2020. The contract also includes a future option to purchase assets by Vale. In 2019, Vale also approved the construction of two wind farms (Gravier and Acauã) in the Brazilian states of Ceará and Rio Grande do Norte, respectively, through Aliança Geração. The projects amount to 180.6 MW of installed capacity and will go into commercial operation by 2022.

- Canada

In 2020, Vale's wholly owned hydroelectric power plants operated in Sudbury generated 20% of the electricity demand from operations in Sudbury. These plants consist of five separate generation stations with an installed capacity of 55 MW. Plant generation is limited by the availability of water and also by restrictions imposed by a water management plan regulated by the Ontario government. In 2020, the average electricity demand was 159 MW for all mines and surface plants in the Sudbury area.

In 2020, diesel generation supplied 100% of the electricity needs of Vale's operations at Voisey's Bay. Vale has also six diesel generators on site, with capacity from 12 MW to 14 MW, in order to meet the seasonal demands.

- Indonesia

The cost of energy is a significant component in the cost of nickel production for the processing of lateritic ores in the operations of PTVI in Indonesia. A large part of the energy needs of PTVI's electric furnaces are supplied at low cost by its three hydroelectric plants located on the Larona River: (i) the Larona plant, which generates an average of 165 MW, (ii) the Balambano plant, which generates an average of 110 MW, and (iii) the Karebbe plant, with 90 MW of average generation capacity. These plants help to reduce production costs, replacing the diesel used for hydroelectric power generation, reducing CO2 emissions, replacing non-renewable generation, which allows Vale to increase its current nickel production capacity in Indonesia.

5. Other investments

Please find below a list of Vale's other major investments:

- *Nickel refinery.* Vale has an indirect 25% stake in Korea Nickel Corporation, which operates a nickel refinery in South Korea. The remaining stake is held by Korea Zinc Co., Ltd., Posteel Co., Ltd., Young Poong Co., Ltd., and others. Korea Nickel Corporation produces refined nickel for the stainless steel sector using intermediate products from Vale operations in Matsuzaka and New Caledonia.

- *Steel producers.* Vale holds 50.0% of the capital stock of California Steel Industries, Inc. ("CSI"), a producer of flat rolled steel and pipelines, located in California, United States. The remainder is owned by JFE Steel. CSI's annual production capacity is approximately 2.8 million metric tons of flat and tubular products. Vale also has a 50% stake in the company Siderúrgica do Pecém ("CSP"), an integrated steel plate plant in the state of Ceará, in partnership with Dongkuk Steel Mill Co. ("Dongkuk") and Posco, two of South Korea's largest steel producers. The annual production capacity of CSP is 3.0 million metric tons.
- *Bauxite.* Vale has a 40% stake in Mineração Rio do Norte S.A. ("MRN"), a bauxite mining company located in Brazil.
- *Samarco.* The Company holds a 50% stake in Samarco, an integrated system composed of two mines, three beneficiation plants, three ore pipelines, four pelletizing plants and one port. The mines and beneficiation plants are located in the state of Minas Gerais, while the port and the pelletizing plants are located in the state of Espírito Santo. From the state of Minas Gerais to Espírito Santo, the production is disposed through the three pipelines that extend for approximately 400 km. Samarco's mining and pelletizing operations have been gradually resumed since December 2020. For further information, see item 7.9 of this Reference Form.
- *Mosaic.* Vale owns 9.2% of the outstanding common shares of Mosaic, a producer and trader of concentrated phosphate and potassium nutrients.

e. Main inputs and raw materials:

i. Description of relationships with suppliers, including whether they are subject to governmental control or regulation, with indication of the bodies and applicable legislation

Vale is committed to building a sustainable business model and contributing to a more just, environmentally balanced and economically prosperous society. Vale adopts a strategy with its suppliers to maintain a fair relationship in order to promote partnerships that are aimed at the winners of both parties through continuous development and innovation and the provision of quality goods and services with a compatible cost.

In order to achieve continuous improvement and contribute to advances in the production chain, the relationship management with its suppliers includes the following stages:

- (i) Registration of suppliers based on their values, which includes verification by Corporate Security, identification of the supplier on black lists, signing of the Code of Ethics and Conduct of the Supplier, and additionally considering the identification and analysis of the supply risks (environmental, institutional, labor, social security, financial, health and safety and ethics);
- (ii) Compliance with the requirements of the Global Anti-Corruption Program, which includes three main supplier controls: supplier risk assessment, third-party Due Diligence to mitigate risks arising from the possible involvement of its trading partners in events that violate human rights or anticorruption laws applicable to Vale, such as the Foreign Corrupt Practices Act - FCPA, UK Bribery Act and the Brazilian anti-corruption law (Federal Law No. 12.846, of August 1, 2013) and inclusion of the appropriate clause to the level of risk in the contract with the supplier;
- (iii) Monitoring the financial health of its main suppliers of materials, equipment and services;
- (iv) Periodic performance evaluation to ensure compliance with applicable and defined requirements at the contracting stage, as well as adherence to contract expectations. The Supplier Performance Index (IDF) Program is a formal program that monitors and measures five different criteria (technical quality, environmental impacts, health and

safety, employee compliance and continuous improvement) in order to maintain transparency and sustainable relationships with their suppliers;

(v) Development and support in the training of suppliers; and

(vi) Promotion and prospection of new suppliers.

In accordance with the UN Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights, Vale respects and promotes human rights in its activities, along its production chain and in the regions where it operates.

In this regard, Vale seeks to establish a commercial relationship with suppliers that share its principles and values and respect human rights.

Vale's principles and values are disclosed to its suppliers through the Supplier's Code of Ethical Conduct, a document that is signed by all companies registered at Vale and the Global Human Rights and Sustainability Policies. It is noteworthy that said Code and Policies are available for reference at the Company's website (www.vale.com).

The registration of suppliers at Vale considers the consultation of the lists disclosed by CEPIM (Registry of Ineligible Private Non-Profit Entities), and by the Ministry of Labor and Employment (MTE), and by the Secretariat of Labor Inspection, linked to the Ministry of Economy, which lists individuals or companies caught in the practice of submitting workers to conditions analogous to slavery, and to the CEIS list (National Register of Inreputable and Suspended Companies), which lists companies that are disreputable and suspended by the federal government. Further consultations with public sanctioning lists may apply in specific cases. It is noteworthy that all suppliers undergo a cadastral analysis.

The guidelines and criteria adopted by Vale to evaluate its suppliers include, in addition to those already mentioned, environmental legal requirements applicable to suppliers whose operational processes involve the use of natural resources or are considered potentially polluting or capable of causing environmental degradation. In addition to these legal aspects, the criteria for Vale's environmental management and the principles of its sustainable development policy are considered.

Regarding the recipients of waste generated in the production processes of Vale, all are submitted to audits by the executive management of environmental management for their initial approval and periodic revalidation. In addition, Vale's Supply Management encourages its suppliers to adopt practices to measure the emission of gases, including standard contractual negotiation practice.

The main environmental laws observed in the process of hiring suppliers are:

a) Environmental Licensing

- Federal Law 6,938/81 - National Environment Policy
- Complementary Law 140/11
- Decree no. 8,437/05
- CONAMA (National Council for the Environment) Resolution 01/86
- CONAMA Resolution 237/97
- CONAMA Resolution 357/05
- CONAMA Resolution 362/05
- CONAMA Resolution 369/06
- CONAMA Resolution 382/06
- CONAMA Resolution 430/11
- CONAMA Resolution 436/11
- CONAMA Resolution 491/18
- Federal Law 12,305/10 - National Policy on Solid Waste

- Decree 7,404/10 - Regulates the National Policy on Solid Waste
- Federal Law 12,651/12 - New Forest Code
- IBAMA (Brazilian Institute of Renewable Natural Resources) Normative Instructions 06/03 and 10/03.
- IBAMA Normative Instruction 05/2012
- IBAMA Normative Instructions 10/13 and 15/13

b) Agricultural and Related Defenses (Pest and Vector Control)

- Federal Law 7,802/89
- Federal Decree 4,074/02
- ANVISA Resolution 52/09
- Federal Law 12,305/10 - National Policy on Solid Waste
- Decree 7,404/10 - Regulates the National Policy on Solid Waste

c) Transportation of Hazardous Products

- Federal Decree 96044/88
- ANTT (National Land Transportation Agency) Resolution 5232/16
- ANTT Resolution 4,779/15
- ANTT Resolution No. 5,848/19
- IBAMA Normative Instruction 05/2012

d) Radioactive Material

- Federal Law 10,308/01
- Federal Law 4,118/62
- Decree 51,726/63
- Law 9,765/1998
- Decree 5,935/2003
- CNEN Resolution 13/88 (National Council of Nuclear Energy) NE 5.01
- CNEN Resolution 11/99
- CNEN Resolution 170/14
- CNEN Resolution 208/16
- CNEN Resolution 251/19

e) Explosive Material

- Decree 10,030/2019
- COLOG Ordinance 147/2019

f) Controlled Chemicals

- Federal Law 10,357/01
- Federal Decree 4,262/02
- Ministry of Justice Ordinance 240/19

ii. Possible dependence on a few suppliers

The main inputs acquired by Vale in 2020 were: liquid, solid and gaseous fuels, grinding bodies, conveyor belts, explosives, parts and components of mining and railroad equipment and tires. In addition, the main services rendered consisted of maritime freight, electricity, real estate services (rents), cargo transportation, maintenance and reparation of facilities, maintenance and repair of equipment and earthworks.

In 2020, the main categories of equipment purchased by the procurement area were wagons, systems, vehicles, mining equipment, railway equipment and lifting equipment. Vale's largest groups of suppliers of these items of equipment are AMSTED-MAXION, EPIROC, WABTEC, HIDRAU TORQUE, FLSMIDTH, THYSSENKRUPP, CATERPILLAR and KOMATSU, accounting jointly for 8% of total purchases of Supplies in the period.

The consumption of fuels is quite intense, especially in the operations and transportation of iron ore. The main supplier of this input is Petrobras Distribuidora S.A., which accounted for approximately 68% of the fuel purchased by Vale in 2020.

In the last few years, approximately 68% of the electric energy consumed by Vale came from self-production in Brazil and 60% globally, the remainder being consumed through the purchase of energy in the market, whose main suppliers were major players in the electric energy market in the regions where the operating units are located².

The top ten suppliers of inputs, equipment and services accounted for 26% of total supply purchases by December 31, 2020.

iii. Possible volatility in its prices

Vale has some contracts in which prices are linked to market indexes (parametric formulas) and therefore subject to these volatilities. Prices may also vary from historical prices depending on the supply versus demand condition present in the market at the time of competition.

² Historical averages of percentages of global and Brazilian self-production. In 2020, due to Vale's lower electricity consumption, these percentages represented about 70% and 90%, respectively.

7.4 - Customers responsible for more than 10% of total net revenue

In 2020, a customer in the ferrous minerals segment accounted for 10.1% of Vale's total revenue.

7.5 - Relevant effects of state regulation on the activities of the Company

a. Need for governmental authorizations for the exercise of activities and history of relationship with the Government to obtain such authorizations

Vale is subject to a variety of government regulations in all jurisdictions in which it operates around the world. The following discussion summarizes the types of regulations with a significant impact on Vale's operations.

Mining rights and mining activity regulations

Mining and mineral beneficiation are subject to extensive regulations. To perform these activities, Vale is obliged to obtain and maintain certain governmental and private licenses, which may include authorizations, concessions, licenses, claims, leases, or permits (all of which are referred to below as "Concessions"). The legal and regulatory regimes applicable to the mining sector and government concessions differ among jurisdictions, often in a significant way. In most jurisdictions, including in Brazil, mineral resources belong to the state and can only be extracted through a governmental concession. In other jurisdictions, such as Ontario, Canada, a substantial part of Vale's mining operations is carried out in accordance with Vale's mining rights (private licenses). Government agencies are generally tasked with providing mining concessions and monitoring compliance with mining laws and regulations.

The table below summarizes Vale's major concessions and other similar rights to Vale's operations.

Location	Mining title	Approximate area covered (in hectares)	Validity
<i>Brazil</i> ⁽¹⁾	Mining concessions (including requests for new concessions)	601,868	Indefinite
<i>Canada</i> ⁽²⁾	Mining concessions (terminology varies between provinces)	218,761	2021 - 2041
Ontario	Patented mining rights, mining leases and occupation mining licenses.	105,469	2021 - 2041
Manitoba	Order on Council leases, mining leases.	111,693	2021 - 2034
<i>Newfoundland and Labrador</i>	Mining Leases	1,599	2027
<i>Indonesia</i> ⁽³⁾	Contract of Work	118,017	2025
<i>New Caledonia</i> ⁽⁴⁾	Mining concessions	20,697	2022-2051
<i>Mozambique</i> ⁽⁵⁾	Mining concessions	23,780	2032

(1) Change reflects the inclusion of mining concessions held by Ferrous Resources do Brasil S/A, a company organized by Vale in 2020.

(2) The process of approval for applications sent in 2020 is underway. All the conditions necessary for the renewal have been fulfilled. This process usually takes several years, and Vale can continue to operate while the approval process is in progress.

(3) The contract of work entered into between PTVI and the Indonesian government will expire in 2025. PTVI is entitled to two extensions of 10 years in the form of a commercial licence, subject to government approval.

(4) VNC requested renewal of some concessions scheduled to expire before 2020. Vale may continue to operate while the approval process is in progress. The covered area was reduced to the extent the trading of exchange of mining bonds with "Société Le Nickel" was officially validated in 2020. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.

(5) The concession is entitled to 25-year extensions, subject to approval by the Government of Mozambique.

In addition to the concessions listed above, Vale has exploration licenses and exploration applications covering 2.88 million hectares in Brazil and 1.6 million hectares in other countries.

In 2020, there were several events in the Brazilian legislative and regulatory framework related to the operation of dams, including, but not limited to, the prohibition of the construction of mining dams in areas where studies of rupture scenarios identify the existence of a community in the Self-Rescue Zone, with the exception of some exceptional cases, such as dams already in installation or operation, in compliance with the specific requirements and provisions set forth by law.

There were also changes and new provisions related to mandatory financial guarantees, guidelines for the preparation of Emergency Action Plans, deadlines for the de-characterization of upstream dams, and the establishment of new sanctions, including fines of up to BRL 1 billion. New amendments and regulations to existing laws are expected in 2021. As a result of these new regulations, the licensing process for operations may become longer and more uncertain, and Vale expects that monitoring and compliance costs will increase. These additional laws and regulations may impose restrictions on operations, require additional investments, and/or modifications to operations to meet specific requirements established by law.

The Company is implementing methods for filtration and storage of tailings that do not rely on dams to continue operating some of its mines and plants. The Company has approved projects and other studies are underway to apply a tailings disposal technology consisting of filtering and storage of partially or totally dehydrated tailings, which will reduce dependence on tailings dams in the medium and long term. These technologies will lead to increased production costs and will require additional investments in mines and plants of the Company.

Environmental regulations

The Company is also subject to environmental regulations that apply to the specific types of mining and processing activities it performs. In accordance with current legislation, the Company must obtain approvals, licenses, permits or authorizations from competent public authorities to build and operate activities that may have an impact on the environment. In most jurisdictions, to build new facilities and operate them, the Company must submit to the competent authorities environmental and social impact studies for approval, related to its activities, and often make investments in order to minimize the mapped environmental and social impacts. The Company must develop its activities in accordance with the terms of the approvals, licenses, permits or authorizations issued by the competent authorities.

Environmental legislation is becoming more stringent around the world, which can lead to higher costs for compliance with environmental requirements and standards.

The environmental regulations affecting Vale's operations relate, among other issues, to:

- Atmospheric emissions, including greenhouse gases and regulations on climate changes, and effluent releases into water bodies and soil;
- Waste management and recycling;
- Protection and preservation of forests, coastlines, underground natural hollows, cultural heritage, watersheds, and other ecosystem characteristics;
- Use of water and effluent discharge;
- Financial provisions and closing plans required for mining licenses, including de-characterization, decommissioning, and costs with recovery and remediation of environmental liabilities.

Some important regulatory issues that may affect the Company's operations are discussed below:

Protection of caves.

In Brazil, the caves are considered national assets by the 1988 Constitution, and make up the national speleological heritage. In this sense, the Brazilian legal system provides for a broad environmental regulation for its protection, which may affect some operations of the Company. The caves protection is regulated by Federal Decree No. 99,556/1990, which deals with the form of intervention in these areas, according to the degree of relevance of the caves and their respective influence zone, and deals with the possibility of adverse impacts, including irreversible, through prior environmental licensing. In this context, Vale has conducted technical studies to identify the existence of caves in the area of influence of its operations, and to determine the degree of relevance of each cave identified. In the event of intervention in some cave in relation to which adverse impacts are admitted, Vale shall propose compensatory measures to Brazilian environmental regulators in the context of the environmental licensing process. The occurrence of caves has been decisive in the planning and implementation of new mining projects, limiting or modifying the exploration plans, as well as generating additional costs related to the preservation of caves or compensatory measures due to impacts caused to them, with potential consequences for production volumes, costs or reserves of production in its iron ore business.

Protection of indigenous peoples and quilombolas communities. A Brazilian regulation published in 2011 and revised in 2015 requires the Company to carry out specific studies to assess the socio-environmental and cultural impacts on indigenous peoples and lands, as well as quilombolas communities, arising from its operations and projects, and to sponsor programs to control and mitigate such impacts.

Other environmental regulations in Brazil. There are also environmental regulatory obligations applicable to Vale's operations that determine compliance with compensatory measures related to the suppression of native vegetation, the protection of the Atlantic Forest biome, and other species of flora protected by law, as well as territorial spaces that are objects of special protection, such as conservation units and permanent preservation areas, and archaeological and cultural heritage. In addition, new projects that include activities with significant environmental impact should raise financial resources to support the implementation and maintenance of a Conservation Unit of the integral protection group, in order to comply with the environmental compensation obligation provided for in Federal Law No. 9,985/2000.

Climate changes. Vale expects more attention from several governments on issues associated with reducing greenhouse gas emissions as a result of climate change concerns, especially since the entry into force of the Paris Agreement at the end of 2016. Ratification of the Paris Agreement has increased international pressure to establish carbon pricing at scales of single, multiple, and global jurisdiction. This regulatory evolution, together with civil society and investor concern, has increased pressure for companies to take carbon pricing strategies. The pricing of greenhouse gas emissions can affect the Company's operating costs, mainly through higher prices for fossil fuels, since mining is an energy intensive industry, and taking into account international freight costs. In particular, the consumption of thermal coal, one of the products that the Company sells, is especially facing pressure from international institutions due to its carbon intensity.

Regulation of chemicals. Some of Vale's products are subject to regulations applicable to the marketing, distribution and use of chemical substances present in its composition. For example, the European Commission has adopted the European Chemicals Policy, known as REACH - Registration, Evaluation and Authorization of Chemicals ("REACH"). According to REACH, European manufacturers and importers are required to register substances before they enter the European market and in some cases may be subject to an authorization procedure. A company that does not comply with the REACH regulation may receive fines and penalties. Brazilian law also establishes regulations and authorizations related to certain chemicals (which may be used for the manufacture of narcotics or weapons), as described in the item "*Description of relationships with suppliers, including whether they are subject to governmental control or regulation, with indication of the bodies and applicable legislation*" above. Vale complies with the requirements of REACH regulations and the requirements of Brazilian legislation on controlled chemicals. In addition, South Korea is currently implementing a regulation similar to REACH, and the company provides for further expansion of regulations such as REACH in other Asian countries.

Regulation of international shipping. Vale is subject to the health, safety and environmental regulations issued by the International Maritime Organization ("IMO"). The IMO rules apply not only to international

shipment categories, but also to the types of cargo transported, including special rules for iron ore, coal, nickel and copper. IMO is currently debating new measures to improve the energy efficiency of international maritime transport, and reduce general greenhouse gas emissions. In April 2018, the reduction targets were defined as part of the initial IMO strategy to reduce emissions from the sector. These targets include a 50% reduction in greenhouse gas emissions by 2050, based on the levels of 2008. The organization will reach a final strategy, including the measures to be adopted, up to 2023. These measures can increase the freight cost of the Company in the future. In 2016, IMO also approved a regulation establishing limits for the emission of sulphur oxides, which will enter into force in 2020. This regulation can increase the cost of freight due to the need to use low-sulphur bunker, or to install additional atmospheric emission control equipment (that is, scrubbers) on the vessels. In addition, the International Convention for the Control and management of ballast water and sediments of ships entered into force in September 2017 for new ships (those with keels placed after that date). For existing vessels, the convention entered into force in stages, starting in September 2019, and each vessel has a specific deadline to adjust, and the global fleet must be in full compliance by September 2024. Under this convention, all ships complying during their international voyages are required to manage their ballast water and sediment in accordance with defined requirements, which may also result in increases in freight costs and port operating costs. In 2020, the European Parliament adopted a proposal to revise the EU system to monitor, report and check CO2 emissions from maritime transport (the "EU MRV Regulation"), with the inclusion of maritime transport in the EU Emission Trading System (ETS), which may also result in increases in freight costs.

Regulatory changes

Since the breach of Dam I of the Córrego do Feijão mine, the legislation applicable to dams has undergone significant regulatory and compliance advances, especially in the mining sphere, particularly with regard to the safety of dams, and also in the environmental sphere, and new restrictions and parameters have been imposed, to be observed in the course of environmental licensing processes. In the last two years, five standards at federal level and nine in Minas Gerais can be considered as the most relevant. Furthermore, novelties can also be found at municipal level, such as Municipal Law No. 2,476, of July 3, 2019, which declares January 25th as a holiday in the municipality of Brumadinho. Despite the various novelties instituted, project owners still find it difficult to interpret and implement some provisions. The expectation of the bodies and the entire sector is that such issues still pending regulation will be addressed by the respective bodies in the near future.

Legislation on Environmental Violations

Federal Decree No. 6,514/2008 regulated the Law on Environmental Crimes (Federal Law No. 9,605/98), providing for administrative infractions against the environment (such as those against the protection of the fauna and flora, relating to pollution, against urban planning and cultural heritage, Environmental Management, committed in conservation units, among others) and their corresponding sanctions.

The administrative sanctions established by Federal Decree No. 6,514/08 for noncompliance with environmental legislation, include, among others, warning, embargo of construction works, stoppage of the activities and a daily or single fine (which may range from BRL 50.00 to BRL 50,000.00).

Legislation on protected areas and protection of native vegetation

Standards related to legally protected territories apply to Conservation Units, Permanent Preservation Areas, Restricted Use Areas, Legal Reserve, native vegetation, among other forms of protection. Conservation Units (UC) are public or private spaces defined by Law 9,985/2000, and can be divided into UC of full protection or sustainable use, and some operations of the Company are inserted in Conservation Units of Sustainable Use, whether in public and/or private domain, where economic activities allied to sustainable practices are allowed, meeting the guidelines for use defined by the public sector, such as the National Forest of Carajás (Pará State) and the

Environmental Protection Area of the Metropolitan Region of Belo Horizonte (Minas Gerais State), where Vale has been operating for decades.

Vale maintains under its responsibility the protection of Private Natural Heritage Reserves (RPPN)/Environmental Easement in Minas Gerais, and there are other proposals of the Company for the creation and maintenance of territorial spaces especially protected being evaluated by the environmental agency in charge. In Espírito Santo State, in Linhares, Vale maintains the Vale Nature Reserve, protecting 23,000 hectares of Atlantic Forest formations.

Federal law 12,651/2012 and a set of complementary federal, state and municipal regulations rule the protection of native vegetation, as well as the Legal Reserve and Permanent Preservation Areas. The Rural Environmental Registry - CAR was created by this federal law, being mandatory for rural properties and requires electronic public registration, at a national level, for control, monitoring, environmental and economic planning, and to combat deforestation. The aforementioned standard also establishes the obligation to control the origin of wood, coal and other forest products or by-products, through a national system that integrates the data of the different federative entities, as well as the need for a license for the transportation, by any means, of forest products or by-products derived from forests of native species, for commercial or industrial purposes, including suppression timbers, which have their own system of tracking and generation and destination control.

Vale has a partnership with ICMBio to support the management of the protected areas in the Atlantic Forest biome, such as the Sooretama Biological Reserve, which is contiguous to Vale's Natural Reserve and forms the most important forest block intended for preservation in Espírito Santo State. Similarly, the partnership with ICMBio also extends to six conservation units in Carajás, including the Carajás National Forest. The partnership involves inspection, research, fighting illegal extraction of forest resources, and fire prevention and fighting, besides environmental education.

All new projects or vegetation suppression actions related to operations located in the Atlantic Forest biome, such as those located in Minas Gerais State and Espírito Santo State, are subject to these regulations, which imply authorizations for vegetation suppression and specific compensatory measures. Federal Law No. 11,428 of December 22, 2006 provides for the use and protection of native vegetation from the Atlantic Forest Biome. Decree No. 6,660, of November 21, 2008, regulates the provisions of this law, and IBAMA Normative Instruction No. 22, of December 26, 2014, amended by IBAMA Normative Instruction No. 04, of March 30, 2015, establishes criteria and procedures for request, analysis and granting of consent prior to the suppression of primary or secondary vegetation in the medium or advanced stages of regeneration in the Atlantic Forest Biome, pursuant to article 19 of the same Decree.

Waste Management and Contaminated Areas

Solid waste management activities are regulated by the National Solid waste policy, established by the Federal Law No. 12,305/10, and its regulation (Federal Decree No. 7,404/2010). These rules establish shared responsibility for the life cycle of the products of all parties involved in the waste management chain, as well as providing a series of instruments for the implementation and operationalization of the National Solid Waste Policy.

All Vale's operating units are required to maintain waste management plans and submit to the competent environmental agency their annual waste inventory, considering the quantities generated and their destination, and also must maintain documentation proving compliance with the obligations set forth in the National Solid Waste Policy, for possible future inspections.

Some types of solid waste have specific norms for their management due to their specificity, such as:

- Radioactive waste, regulated and managed specifically by CNEN;
- Waste of explosives, which are regulated and controlled by the Army;

- Some chemical waste controlled by the federal police;
- Waste of health service, which are regulated and controlled by the environmental authorities and ANVISA.

CONAMA Resolution 420/2009 set national guidelines for the management of contaminated areas. All areas with suspicion or evidence of contamination shall be investigated and, if contamination is confirmed, the investigation should be detailed, and an analysis of the risk of this area to human health and/or the ecosystem shall be conducted. If the risk analysis demonstrates the need for intervention, the area shall be targeted for remediation until the risks are controlled. The areas identified as contaminated must be reported to the competent environmental agencies, which will monitor and inspect the remediation actions. Failure to comply with the requirements set forth by the legislation and the control measures defined by the competent environmental agencies may lead to administrative and criminal sanctions, in addition to civil damages.

The owner of a contaminated property is obliged to compensate for any environmental damages caused in the area, regardless of whom has given rise to the contamination, which can lead to significant expenses (the explorer and/or the owner of the property may have to bear such obligation). It also should be noted that liability for environmental damage is not subject to limitation, that is, it does not expire in the course of time.

Archaeological sites and areas of historical and cultural interest

In Brazil, the Archaeological Cultural Heritage is considered an asset of the Federal Government, pursuant to the 1988 Constitution. The protection of archaeological sites is regulated by the National Institute of Cultural and Artistic Heritage (IPHAN), federal body responsible for management thereof, through Ordinances 07/1988, 230/2002 and Normative Instruction 01/2015, which standardize the actions and obligations of the project owner, within the scope of environmental licensing processes. All Vale projects with potential interference with cultural heritage are submitted to IPHAN approval, following the assumptions of the legislation. Similarly, the need for interference in Archaeological Heritage is submitted to IPHAN, which establishes the compensatory and mitigating measures to be adopted, dissemination actions are carried out for society, and all the documentation inserted in the records of environmental licensing processes.

The actions adopted by Vale, pertinent to the dissemination and safeguarding of Cultural Heritage, take place in all phases of the project and not only at the planning phase. On the date of this Reference Form, Vale preserves within its properties more than 20 historical archaeological sites, and most of them related to the Gold Cycle in Minas Gerais, in addition to several prehistoric archaeological sites, several of these sites being listed as historic places and coexisting with the Company's operations. Also present in Vale's operations are Buildings of historical interest or effectively listed as historic places, such as the building of the Belo Horizonte Central Railway Station, the Ouro Preto and Mariana Railway Stations and the building of the Memorial Minas Gerais Vale, in Praça da Liberdade, Belo Horizonte.

Vale is responsible for the protection, maintenance and guarantee of enjoyment by the communities, of all this Cultural Heritage, providing a service of great relevance to Brazil.

Water Resources

In mining, water is a fundamental input and present in all phases of the project, from conceptual design to post-closure.

In 2018, Vale launched the Water Goal - aligned with the United Nations SDGs: reduction by 10% in the specific use of water (base year 2017), fresh water collected and used in the processes per produced ton by 2030, which means less fresh water for its production.

Since its launch, Vale has reinforced initiatives oriented to governance and the performance of actions in its operational units. Highlight for the accumulated reduction of 8.7% in the specific use of water, considering the closing of year 2020; publication of the Water and Water Resources Policy; review of the Global Water and Effluent Management Standard, according to International Council on Mining and Metals (ICMM) guidelines; creation of Water Resources and Effluents committees in the operational units; the acquisition of additional water variable monitoring instruments (approximately additional 620 since 2018).

Vale understands that complying with legal obligations is the minimum to be done, and seeks to go beyond considering the management unit, the watershed, and respective stakeholders.

Carbon Emissions and Climate Change

The physical effects of climate change can affect the Company's operations, through damage to equipment and assets, interruption in the provision of services etc., with the potential to generate impact on the production schedule and operational costs.

The possible adoption of a governmental policy for carbon pricing, either by imposing a rate (or tax) on greenhouse gas emissions, or by creating a carbon market, consequently imposing a limit for the Company's emissions, may require additional investments to reduce emissions. In particular, regulatory measures aimed at taxing carbon emissions in international shipping may raise ocean freight costs for the Company. At the limit, depending on technical and economic feasibility, carbon pricing can influence changes in the Company's energy matrix and in the technology of existing and future processes.

The Company has the Policy on Climate Changes, which defines the corporate guidelines to address the matter in the company and in the controlled group, encompassing commitments to manage and reduce the Company's Greenhouse Gas Emissions.

In 2019, the Company published a set of goals related to sustainability, with new, more ambitious commitments on climate change, including the commitment to reduce absolute greenhouse gas emissions (Scopes 1 and 2), in line with the Paris Agreement by 2030, and become carbon neutral (Scopes 1 and 2) by 2050. In 2020, we committed ourselves to the goal of reducing net emissions of scope 3 by 15% by 2035, having 2018 as a baseline, through the development of new products, and partnerships and engagement with customers and suppliers, for investment in innovative solutions that allow reduction of emissions mainly in steel production. Considering the relevance of forest assets and their contribution to climate change mitigation, Vale also considers nature-based solutions within this goal. The Scope 3 goal will be revised every five years, given uncertainties regarding low-carbon technologies and climate policies. Annually, Vale publishes the CDP report, formerly Carbon Disclosure Project, aiming at providing transparency to the main material risks and opportunities for the company.

In line with the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD), of which it has been part since 2017, Vale has analyzed the resilience of its strategy against the three climate change scenarios, considering the scenarios of the International Energy Agency (IEA).

The estimation of future emissions, as well as the direct and indirect financial impacts of carbon prices, allows greater flexibility in the way in the approach of the theme and in the planning of more economical mitigation strategies, according to the planning of short- and long-term of the company.

As part of the GHG emission neutralization strategy, Vale has estimated the financial implications of carbon pricing mechanisms and is working on assessing and monitoring physical risks to operations.

Vale annually discloses information on greenhouse gas emissions, de-carbonization targets and plans, analysis of business resilience scenarios in view of the International Energy Agency (IEA) climate change scenarios, carbon pricing, and publishes relevant information on the management of the theme in the Sustainability Report, on its dedicated website – ESG Portal – since 2019 and in the CDP.

Indigenous Peoples

In the year 2015, the Interministerial Ordinance MMA/MJ/MinC/MS No. 60 was enacted, providing for the performance of the National Indian Foundation - and Palmares Cultural Foundation in the environmental licensing processes at the federal level, determining that the project owner should carry out specific studies for assessment of impacts caused by its operations and projects near indigenous lands and quilombola territories, as well as propose measures of control and mitigation resulting from such impacts. In February 2020, Decree No. 10,252 transferred to the National Institute of Colonization and Agrarian Reform (INCRA) the jurisdiction to manage environmental licensing processes involving quilombola communities.

Also according to Interministerial Ordinance 60/2015, the participation of the National Indian Foundation (FUNAI) and INCRA in the environmental licensing of projects will occur whenever such projects are located in the area of influence of Indigenous Lands or quilombola territories, in observance of the referential distance limits provided for in the actual ordinance.

Vale has relationships and conducts prior, free and informed consultation/consent processes, in different stages, with the Tupiniquim, Guarani, Krenak, Awa, Guajajara, Ka'apor, Parkatêjê, Kyikatêjê, Akratikatêjê, Xikrin do Cateté and Kayapó peoples, and with the traditional communities (quilombolas and coconut breakers) due to the licensing processes and voluntary agreements. Vale is at the implementation phase of the PBA (Basic Environmental Plan) with the Tupiniquim, Guarani, Awá, Guajajara, Ka'apor Kayapó, Xikrin do Cateté and traditional communities (quilombolas, coconut breakers and riparian populations). In the EFC – Carajás railway, the PBA Gavião of the Parkatêjê, Kyikatêjê and Akrãtikatêjê Peoples of the Mãe Maria Indigenous Land is being prepared.

Environmental Liability

Environmental liability can occur in three diverse and independent levels: (i) civil; (ii) administrative and (iii) criminal.

- *Civil Liability:* The project owner, regardless of the existence of fault, must indemnify or redress the damages caused to the environment and to third parties affected by their activities. Environmental legislation also stipulates the joint character of the polluters' liability (article 3, item IV, Federal Law No. 6,938/81), which implies the possibility of holding accountable all those who, directly or indirectly, give rise to damage to the environment.

- *Administrative Liability:* Administrative liability derives from an action or omission that violates the legal rules of use, enjoyment, promotion, protection and recovery of the environment, as defined in the legislation (article 2 of Federal Decree No. 6,514/08). Sanctions against an administrative infraction may include warning, fine, product destruction, suspension of product sale and manufacture, embargo of construction works or activity, demolition of construction works, among other restrictions on rights. According to the case law of the Brazilian Superior Justice Court, environmental liability in the administrative sphere is subjective in nature, requiring the demonstration of culpability (intent or fault) of the agent.
- *Criminal Liability:* With criminal implications, Federal Law No. 9,605/98 (Environmental Crimes Law) subjects to its effects any individual or legal entity that in any way contributes to the commission of actions deemed harmful to the environment and classified as environmental crimes. In this respect, it should be noted that environmental liability in the criminal sphere is subjective in nature, that is, it requires the demonstration of culpability (intent or fault) of the agent. The Law also provides for the possibility of disregarding the corporate entity whenever this is an obstacle to reimbursement losses caused to the quality of the environment. The penalties applicable to legal entities may be (i) penalty; (ii) partial or total suspension of the activity; (iii) temporary interdiction of establishment, construction work or activity; and, (iv) prohibition of contracting with the Public Authorities, as well as obtaining subsidies, grants or donations.

Other Considerations on International Environmental Legislation

Environmental legislation is becoming more stringent around the world, which can lead to higher costs for compliance with environmental laws. There are several examples of environmental regulation and compliance initiatives that may affect the Company's operations:

- *Canada.* In Canada, additional federal testing requirements for water effluents will come to effect on 1 June 2021, and a cap on greenhouse gas emissions and trade regulation are being enacted in Ontario and proposed in Manitoba and Newfoundland and Labrador, which could affect Company. In Canada, Vale is making significant investments to ensure compliance with regulations for atmospheric emissions, which include, among other things, sulfur dioxide, greenhouse gas emissions, particulates, and metals. As for biodiversity, the occurrence of specific environments related to endangered species can lead to restrictions on land use, implying specific monitoring and conservation measures.
- *Indonesia.* Under the Indonesian Government Regulation of 2014 on waste B3, PTVI slag is classified as hazardous waste, and PTVI submitted a formal request to the regulatory body for approval. In February 2021, a new Government Regulation was issued. PTVI slag is no longer classified as hazardous waste; however is required to report the use and the management of the slag to the government.
- *China.* An amendment to the environmental protection law was approved in April 2014, imposing tougher obligations on prevention and control of pollution to companies and providing for more severe penalties.
- *New Caledonia.* A law passed in the Southern New Caledonia Province in February 2014 has imposed stricter limits on emissions of nitrogen oxide, sulfur oxide and particulates from large power plants, which will affect the power plant that supplies electricity to the VNC. This is expected to result in an increase in the price of energy paid by VNC. In March 2021, Vale completed the VNC sale process. For further information, see item 7.9 of this Reference Form.

Brazilian Regulation of Mining Dams

According to a 2017 ANM regulation, companies operating mining dams in Brazil are required to comply with specific rules, including:

- *Audit*: Companies operating mining dams must conduct two annual stability audits for each dam and prepare a stability condition report and the corresponding Stability Condition Statement (DCE). One of these audits must be conducted by external auditors.
- *Periodic Safety Review of Dam - RPSB ("RSPB")*: The report must include a detailed analysis of the entire documentation of the dam, including designs and procedures, structural stability analysis, and impacts on neighboring communities, including studies on risks and impact of failures. RPSB reports should be renewed every 3, 5 and 7 years for high, medium and low associated potential damage (DPA), respectively, and whenever any structural modifications are made.
- *Emergency Action Plan Training for Mining Dams*: Companies that operate high risk mining dams must conduct two annual training sessions of the emergency action plan for their employees.

In February 2019, the ANM issued a resolution on dam safety, requiring companies that have upstream dams to submit a technical de-characterization project, and fully de-characterize these structures in the coming years. In addition, a wide range of measures have been imposed to ensure the stability and safety of mining dams and their monitoring and warning systems. In addition, the resolution provides for a minimum safety factor and the obligation to sign the DCE per person at the top level in the company hierarchy, together with the technical responsible for its preparation.

In February 2019, the Minas Gerais State enacted a law prohibiting the increase, modification or construction of any upstream dam. The law also forbids the increase, modification or constructions of any dam if communities are established within its Self-Rescue Zone, an area that encompasses the portion of the valley downstream the dam, where evacuation and intervention of the competent authorities in emergencies is not possible. Usually, this imposes certain restrictions on the use of any other type of tailings dams and significant restrictions on the Company's ability to increase any existing dam.

In September 2020, the federal government enacted Law No. 14,066, which amended the National Dam Safety Policy (Law No. 12,334/2020), reinforcing the prohibition of construction and raising of upstream dams in Brazil. The law also requires companies to de-characterize the structures built by the upstream method by 2022, or later, if proven that the de-characterization is not technically feasible by 2022. In this regard, the public authorities charged with overtaking dam management have already adopted longer deadlines for dams with higher volumes, for example, and can also agree to the extension of these deadlines to ensure proper safety conditions for de-characterization projects. In the case of dams already installed or in operation in which there is a community in the Self-Rescue Zone, government authorities may require (a) the de-characterization of the structure, (b) the resettlement of the population and recovery of cultural heritage, or (c) the realization of reinforcements to ensure the stability of the structure. The new legislation introduced other important rules, which are still subject to ANM regulation.

For further information, see item 7.9 of this Reference Form.

Royalties and other taxes on mining activities

In many jurisdictions, Vale is required to pay royalties or taxes on its revenues or profits from extractions and sales of the minerals. These payments constitute an important element of the economic performance of a mining operation. The following royalties and taxes apply in some of the jurisdictions in which Vale has major operations:

- *Brazil.* Vale is required to pay a royalty known as Financial Compensation for the Exploitation of Mineral Resources ("CFEM") on sales revenues from the minerals it extracts. The calculation of the CFEM is done as follows: (i) for sales in the domestic market, the basis of calculation of CFEM is the revenue of sales, net of taxes on the sale; (ii) for exports, the basis for calculation of the CFEM is the amount that is greater between the export revenue and the amount equivalent to the transfer price in federal income tax legislation; and (iii) for the internal consumption of minerals of a company, the basis for calculation of the CFEM is the equivalent of the current price of the ore in the domestic market, in international markets or a reference value, to be determined by the National Mining Agency ("ANM"). The current CFEM rates are: 3.5% for iron ore, 2% for copper, nickel, and other materials, 3% for bauxite and manganese ore.

Brazilian States. Several Brazilian states, including the States of Minas Gerais, Pará and Mato Grosso do Sul, charge a tax on mineral production (Mineral Resource Inspection Rate), at rates ranging from BRL 0.50 to BRL 3.575 per metric ton of minerals produced or transferred from the state. In March 2021, a state decree increased the rate of TFRM in the State of Pará to BRL 11,188 per metric ton, effective as of April 2021. The Company is evaluating the legal aspects and economic effects of this increase. Other companies and an industry association currently challenge the legality of the TFRM in a series of lawsuits, including before the Supreme Court (STF).

- *Canada.* The Canadian provinces where Vale operates charge a profit tax on mining operations. Profit from mining operations is generally determined by reference to the gross revenue from sales of the mine products and deducting some, such as mining and processing costs and investment in processing assets. The tax rates of mining provided by law are 10% in Ontario, with graduated rates of up to 17% in Manitoba and a 16% combined mining and royalty tax rate in Newfoundland and Labrador. The mining tax paid is deductible for company income tax purposes.
- *Mozambique.* The mining contract signed in June 2007 with the Mozambican government requires payment of a royalty known as the Mining Production Tax (IPM) on sales of extracted coal, net of insurance and transportation costs incurred before sales. Currently, the royalty rate on coal mining activity in Mozambique is 3%.
- *Indonesia.* Vale's subsidiary PTVI pays 2% mining rights over its nickel matte revenues, when LME nickel prices are below USD 21,000 per metric ton, and 3% on their nickel matte revenues when LME nickel prices are equal to or greater than USD 21,000 per metric ton.

Regulation of other activities

Vale is subject to comprehensive regulatory regimes for some of its other activities, such as rail transportation, port operations and electricity generation. It is also subject to the more general legislation on workers' health and safety, security and support for communities close to mines and other issues. The descriptions below refer to some of the other regulatory regimes applicable to its operations:

- *Regulation of the Brazilian railways.* Vale's Brazilian rail business operates according to concession agreements with the Federal Government, and its railway concessions are subject to the regulation and supervision of the Ministry of Infrastructure and the National Land Transportation Agency (ANTT). The EFC and EFVM concessions have recently been renewed for 30 years and will expire in 2057. VLI was also awarded a sub-concession contract for commercial operation of a 720 km segment of the FNS Railway in Brazil, which expires in 2037. The FCA and MRS concessions expire in 2026 and both can be renewed for 30 years, at the discretion of the federal government. Railroad transportation prices can be negotiated directly with users of such services, subject to a price limit established in the concession contracts and approved annually by ANTT for each of the

concessionaires and for the different products transported. The ANTT regulations also oblige concessionaires to grant rights to use the railway (trackage rights) to other railway operators, to make investments in the rail network, as well as to meet certain productivity requirements and Security, among other obligations.

- Regulation of Brazilian ports. Port operations in Brazil are subject to regulation and supervision by the National Agency for Transport Aquaviaries (ANTAQ), the federal agency responsible for maritime transport services, and the Ministry of Infrastructure, through the National Secretariat of Ports and Waterway Transport (SNP), the purpose of which is to formulate policies and guidelines. The contracts for Vale to operate its private terminals are valid until 2039, and can be renewed for equal periods, with the exception of the contract with CPBS, which will expire in 2026 and may be renewed for another period of 25 years at the discretion of the Ministry of Infrastructure and the federal regulatory agency.

b. Company's environmental policy and costs incurred to comply with environmental regulation and, if applicable, other environmental practices, including adherence to international environmental protection standards

In order to materialize the sustainability in its projects, Vale develops and implements policies, guidelines and principles associated with its activities, products and services that are periodically evaluated and revised, whenever necessary. Vale has a Global Sustainability Policy related to environmental aspects and social performance aligned with ISO standards, the Global Climate Change Policy and the Global Human Rights Policy.

These commitments, together with specific programs and plans developed for each Vale operation, provide the necessary guidance to achieve its sustainability objectives, seeking continuous improvement with repercussion on its short, medium and long term business decisions.

Vale's Management Model, known as the Vale Production System (VPS), is focused on results and provides for the deep and comprehensive implementation of policies and practices to ensure safe and environmentally responsible operations and guarantee the integrity of our assets. The VPS is composed of 3 dimensions: Leadership (set of leadership practices expected to reinforce key behaviors, and shape organizational culture and discipline), Technical (policies, guidelines and requirements of common technical processes, to manage assets and deal with risks inherent to our business), and Management (routines, methodologies and management tools structured to sustain and improve results).

The VPS strengthens Vale's organizational culture through people development, standardization of best practices, operational discipline and compliance with routine procedures. It is a constantly evolving model that continuously consolidates and improves its approach, methods, techniques and tools in line with lessons learned. Its application is mandatory: it must be used globally at all operational and administrative sites.

For base metals, operations with ISO 14001 certification are: Indonesia, China, Wales, Japan, Salobo, Sossego and Onça Puma. Currently, the certification of the other operations that were part of the ISO14001 multisite scope, especially the ferrous metal operations, is suspended due to the breach of Dam I of the Córrego do Feijão mine. However, the Company is gradually resuming such certifications, and some of the main ferrous business sites are already ISO 14001 certified: Iron and Manganese Mine in Carajás; Railway, Port and Pelletizing of Tubarão, and Itabira Iron Mines, in addition to the already certified Oman Pelletizing site. Plans to increase list are part of the Company's commitments.

In the last 3 years, approximately USD 1.6 billion have been invested in environmental management actions, such actions being aimed at complying with regulation or other environmental practices.

For Vale the main types of atmospheric emissions are particulate matter (PM), sulfur oxides (SOx) and nitrogen oxides (NOx). The management of the Company's atmospheric emissions begins with the inventory of sources, which can be fixed or mobile, punctual or diffuse, followed by the adoption of control systems and emission monitoring plans. We also maintain air quality monitoring stations in the vicinity of operating units. The Company seek continuous improvement of the operational processes and adoption of new technologies, focusing on the reduction of fixed source emissions and improvement of air quality indicators.

The most significant atmospheric emissions are particulate matter from diffuse sources (fugitive emissions), such as vehicle traffic on unpaved roads, exposed areas subjected to wind-drag, ore handling and bulk materials and Rail. O material particulado proveniente destas fontes difusas é monitorado em pontos definidos em conjunto com os órgãos ambientais e que buscam representar a área da unidade operacional e comunidades no entorno.

Vale acts strongly to reduce these diffuse emissions, adopting control measures such as the improvement of sprinkler systems, use of dust suppressor products, enclosed conveyor belts and transfer houses, windfences³, slope revegetation and improvement in management processes.

Emissions from fixed sources enable more consistent monitoring, since these installations have chimneys and allow to implement specific control actions, such as electrostatic filters and precipitators integrated by Online systems, which aim to ensure the control of Vale's legal requirements and performance standards.

Another relevant aspect of the integrated management system is the theme of water resources, essential input for operations. The optimization of its use and the controls and treatment of the effluent generated are present in the routine of the managers through the implementation of monitoring plans, analysis of indicators, setting goals and also in the pursuit of development of New technologies.

Vale's environmental performance also involves the recovery of degraded areas ("RAD"), a set of interventions whose purpose is to restore the altered sites to a condition of physical, chemical, biological and socioeconomic stability. It applies both to areas that have been affected by the typical activities of the company (opening of access routes, mine operation, industrial and administrative installations, etc.), and in places where environmental conditions have been altered by other Economic activities (agriculture, livestock, etc.) as a form of environmental compensation (areas acquired for this purpose; Conservation units) and/or environmental regularization of the properties occupied by the company (legal reserves, permanent preservation areas). The recovery can be performed in different environmental compartments (water, soil, vegetation cover), in an individualized or integrated way, in accordance with the specific characteristics of the sites to be recovered and with the intended future uses. Therefore, RAD may involve procedures of a manual, mechanized or combined nature, with varying degrees of intensity, lead times and costs.

Aligned with the RAD practices and for the purpose of promoting the reintegration of the mined territories to the physical, biotic and socioeconomic environments, Vale has an integrated and strategic plan for the closure of all its mines. To guide its actions, Vale has internal procedures and corporate guidelines for mine closure. Such procedures include the composition of the provision for decommissioning assets, which are aligned with the guidelines of the Securities and Exchange Commission of Brazil - CVM and of the Securities and Exchange Commission - SEC (IAS 37 and Sarbanes-Oxley Act). The definition of the future use of each unit is established in the Mine Closure Plan, considering environmental, social and economic aspects, according to specific operational procedures. All of Vale's operations have a current Mine Closure Plan.

³ Wind barriers that surround product storage yards and reduce the sweeping of dust.

Vale operates in several regions, including areas of high cultural value and high relevance to biodiversity. In all its projects and operations Vale develops actions to (i) avoid, mitigate, monitor and compensate for the negative impacts, and (ii) potentialize the positive impacts in the locations where it operates. In addition, it develops and supports actions that encourage research and conservation of biodiversity and the sustainable use of natural resources. Among these, Vale maintains its own protected natural areas and, in partnership with government agencies, supports the maintenance of several conservation units contributing to the conservation of threatened species and biomes, as well as promoting engagement with communities, scientific insights and other relevant players.

In order to build a positive relationship, Vale establishes voluntary agreements with indigenous peoples and traditional communities who are in their areas of influence, focusing on ethnic identity development, territorial protection, cultural and institutional strengthening, among others, in order to contribute to the improvement of quality of life and the self-sufficiency of these peoples. In addition to voluntary agreements, when the company's licensing processes identify risks and/or direct or indirect impacts on recognized traditional territories, the Environmental Basic Programs are also implemented to mitigate these risks/impacts.

Global. Vale's relationship with indigenous peoples and traditional communities is aligned with the main international commitments and standards such as the ICMM position on Mining and Indigenous Peoples, Convention 169 of the International Labor Organization (ILO), and the United Nations Declaration on Rights of Indigenous Peoples. In Brazil, the company has a multidisciplinary team with indigenous experience, with more than 20 professionals dedicated to social activities in the territories and to a permanent relationship with these populations. In other countries, Vale has different structures, always with qualified professionals who work guided by the mentioned references and the Global Human Rights Policy. Currently, Vale has a global relationship with 31 indigenous peoples, with 13 in Brazil and 18 in other countries - 7 in Peru, 2 in Chile, 8 in Canada (1 Manitoba/ 5 Ontario / 2 Voiseys Bay), 1 in Indonesia, and 48 traditional communities in Brazil (such as quilombolas, coconut-breakers, riparian populations, small-scale fishermen, and gypsies).

For more details on the above information, please refer to the Company's Integrated Report, available for consultation on the website indicated in item 7.8 of this Reference Form.

c. dependence on patents, trademarks, licenses, concessions, franchises, royalty contracts relevant to the development of activities.

Vale operates mines, railways, ports, marine terminals and hydroelectric plants, generally through concessions granted by federal and state governments in several countries. Therefore, Vale depends on the concession of operating licenses of such assets for the development of its Vale activities. For more information on Vale's licenses and concessions, see item 9.1 b of this Reference Form.

Moreover, Vale's portfolio of intangible assets, as a whole, generates added value for the operational units in different respects, whether by its commercial bias, which involves the transfer of technology, open innovation and economic exploitation, either as Unique tool of competitiveness, because it creates technological barriers to competitors, freedom of operation, or even as an instrument of productivity increment and/or reduction of personal and environmental risks, as patents related to technologies Health and safety of employees in strategic areas. Among the intangible assets, Vale considers its records for the brand "VALE" one of the most relevant for Vale's activities, which, together with the other assets, bring the right and indirect technical and financial benefits to Vale's activities in Various production fronts.

7.6 - Relevant revenues from abroad

The following are the Company's significant revenues from abroad in the last three fiscal years:

	Fiscal year ending on December 31					
<i>BRL million</i>	2018	%	2019	%	2020	%
North America	7,346	5.46	8,097	5.45	6,574	3.15
USA	4,937	3.67	5,271	3.55	5,336	2.56
Canada	2,409	1.79	2,826	1.90	1,238	0.59
South America	14,849	11.04	15,718	10.57	16,820	8.06
Brazil	11,860	8.82	13,196	8.87	14,959	7.17
Others	2,989	2.22	2,522	1.70	1,861	0.89
Asia	79,825	59.36	95,786	64.44	149,635	71.75
China	56,283	41.85	72,405	48.71	121,193	58.12
Japan	10,066	7.48	10,272	6.91	11,460	5.49
South Korea	4,772	3.55	5,070	3.41	6,704	3.21
Taiwan	1,882	1.40	3,763	2.53	3,034	1.46
Others	6,822	5.07	4,276	2.88	7,244	3.47
Europe	22,374	16.64	20,492	13.79	27,676	13.26
Germany	6,058	4.50	6,653	4.48	8,604	4.12
France	2,412	1.79	2,038	1.37	1,343	0.64
United Kingdom	1,147	0.85	0,660	0.44	3,380	1.62
Italy	2,029	1.51	1,408	0.95	1,401	0.67
Others	10,728	7.98	9,733	6.55	12,948	6.21
Other countries	10,089	7.50	8,547	5.75	7,824	3.75
Net Revenue	134,483	100.00	148,640	100.00	208,529	100.00

7.7 - Effects of foreign regulation on activities

For information on the effects of foreign regulation on Vale's activities, see item 7.5 of this Reference Form.

7.8 - Socio-environmental policies:

(a) if the issuer discloses social and environmental information:

1. Do you publish a sustainability report or similar document?

The Company adhered to the International Integrated Reporting Council (IIRC) standard, publishing the 2020 edition of its report in the Integrated Report format, in addition to the Global Reporting Initiative (GRI) standard, adopted since 2007. The Integrated Report brings the 2020 ESG performance approach and also an attachment – the ESG databook, with indicators from the Global Reporting Initiative (GRI); Metals & Mining segment of the Sustainability Accounting Standard (SASB); Task Force on Climate-related Financial Disclosures (TCFD); core metrics of the World Economic Forum (WEF) and Sustainable Development Goals (SDGs) of ONU. The Company actively participates in the International Council on Mining and Metals (ICMM), so it is also committed to conducting management adhering to the ICMM Mining Principles, which also guide this communication of results.

Vale's Integrated Report 2020 was prepared in accordance with GRI Standards, Comprehensive option, and with the Mining and Metals Sector Supplement, with external assurance from Bureau Veritas Certification (BVC). The data of this publication refers to the operations conducted from January 1, 2020 to December 31, 2020, the financial results of which consider Vale and its subsidiaries, and environmental, social and governance data on topics prioritized according to the Company's materiality matrix.

Among the information reported, we highlight actions performed in an effort to fully redress the damage caused by the breach of Dam I of the Córrego do Feijão mine in 2019; humanitarian support in Brazil and other countries where the Company operates and the security measures implemented in Vale's operations, due to the pandemic of the new coronavirus, following world-class protocols, which include the creation of internal prevention processes and the use of equipment and technologies capable of mitigating the risk of contagion; commitments and advances in the 2030 agenda goals, such as the goal of reducing by 33% greenhouse gas (GHG) absolute emissions from operations (Scopes 1 and 2) by 2030, considering the 2017 base year, and reducing by 15% the net emissions of Scope 3 by 2035, based on 2018 emissions. It is the largest investment ever undertaken by the mining industry to mitigate climate changes and is part of Vale's commitment to becoming carbon neutral by 2050.

In the social sphere, information was brought on the progress in the governance of the Human Rights topic in the Company, such as the performance of risk assessment processes in all operations and the beginning of due diligence on Human Rights in operations and production chain.

It also highlights the standardization of the integrated management model VPS (Vale Production System), and the institutionalization of Safety management with a focus on Hazard Identification and Risk Assessment (HIRA), allowing a detailed analysis of operational scenarios, and the establishment of critical controls, such as protection barriers, a system already implemented in 92% of Vale's sites. The report is available on Vale's website.

2. Do you have a socio-environmental responsibility policy?

Vale's governance model was developed with the objective of making the principles of role clarity, transparency and stability that govern the company's actions concrete. The global policies on Sustainability, Anti-Corruption, Human Rights, Mitigation and Adaptation to Climate Change, Socio-Environmental Investments, and the Code of Conduct, among others, are instruments that align the Company with market practices and public and private sector regulations and legislation.

All of these policies are available at <http://www.vale.com/esg/en/Pages/PoliciesAndCorporateDocuments.aspx>.

The Sustainability Policy is undergoing a review and was under public consultation on Vale's website in 2020. Once completed, the policy review will be available at the same electronic address.

(b) the methodology followed in preparing this information:

The methodologies used to prepare the Integrated Report are the Global Reporting Initiative ("GRI") and International Integrated Reporting Council (IIRC). The GRI guidelines are an international benchmark for all stakeholders in the disclosure of information on the way organizations are managed, their environmental, social and economic performance and impacts in these areas. GRI offers principles, content and an implementation manual so that different organizations, regardless of their size, sector or location, can produce sustainability reports. Vale's Integrated Report 2020 was prepared in the Standard version of GRI, Comprehensive level.

(c) has this information been audited or reviewed by an independent entity:

The Sustainability Report is audited annually by an independent audit firm. The 2020 Integrated Report was audited by Bureau Veritas Certification (BVC).

(d) the page on the World Wide Web where you can find this information:

The Company's Integrated Report is available for reference on the website:
<http://www.vale.com/brasil/EN/sustainability/integrated-reporting-2020/Pages/default.aspx>

The Company's Global Sustainability Policy, Global Human Rights Policy, and Global Climate Change Policy are available for reference at:
<http://www.vale.com/esg/en/Pages/PoliciesAndCorporateDocuments.aspx>

(e) whether this report takes into account the UN Sustainable Development Goals (SDGs) and what are the material SDGs for the company's business

The Integrated Report brings an attachment – the ESG databook, with indicators from the Global Reporting Initiative (GRI); Metals & Mining segment of the Sustainability Accounting Standard (SASB); Task Force on Climate-related Financial Disclosures (TCFD); core metrics of the World Economic Forum (WEF) and Sustainable Development Goals (SDGs). The Company's adherence to the Mining Principles of the International Council on Mining and Metals (ICMM) is also disclosed in this attachment.

Vale updated its materiality matrix in 2020. The study was conducted according to the integrated report guidelines of the International Integrated Reporting Council (IIRC). It also followed the standards of the Global Reporting Initiative (GRI), involving the main stakeholders in the identification and prioritization of these topics, with final approval of the materiality matrix by the Company's Sustainability Committee.

For each topic, GRI indicators, Metals & Mining indicators of the Sustainability Accounting Standard (SASB) and Sustainable Development Goals (SDGs) were identified, related to the reported

indicators and material themes. The SDGs prioritized by Vale, according to the commitments of the Company's 2030 agenda are:

- **3. Good health** - Ensure healthy lives and promote well-being for all at all ages;
- **4. Education** - Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all;
- **5. Gender equality** - Achieve gender equality and empower all women and girls;
- **6. Clean water** - Ensure access to water and sanitation for all;
- **7. Clean energy** - Ensure access to affordable, reliable, sustainable and modern energy;
- **12. Responsible consumption** - Ensure sustainable consumption and production patterns;
- **13. Climate action** - Take urgent action to combat climate change and its impacts;
- **15. Life on land** - Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss;
- **17. Partnership** - Revitalize the global partnership for sustainable development

7.9 - Other relevant information

Significant Business Changes

The main events in the Company's business since the beginning of 2020 are summarized below.

Global Settlement for Integral Reparation.

In February 2021, Vale signed a Global Settlement with several public authorities for the reparation and remediation of socio-environmental and socioeconomic damages resulting from the Brumadinho dam breach. For further information, see item "Tailings Dam Rupture in Brumadinho" in this item 7.9 and item 4.7 of this Reference Form.

Events related to the coronavirus pandemic



Operations. In 2020, some operations were temporarily halted as a result of the events of the COVID-19 pandemic, as discussed below. Temporary suspensions had no material impact on operating results.

Itabira Complex. In May and June 2020, operations at the Itabira complex were suspended for 12 days by the Regional Superintendence of Labor and Employment ("SRTE") due to concerns related to the transmission of COVID-19. The SRTE repealed the suspension order as soon as it concluded that safety measures and procedures were satisfactory. In June 2020, Vale also reached a legal agreement with the Labor Prosecution Office ("MPT") and the Labor Justice of the State of Minas Gerais, to set a series of health and safety measures and procedures for its operations in Itabira in relation to the COVID-19 pandemic. In September and November 2020, two additional agreements were signed with the MPT, on a voluntary basis, to extend such health and safety measures to all mining complexes in Brazil until the end of the COVID-19 pandemic.

Teluk Rubiah Maritime Terminal (TRMT). Between March and May 2020, TRMT operations in Malaysia were temporarily halted for 53 days, as the Company was temporarily unable to secure the minimum resources to operate the terminal safely. During the suspension of operations, ships heading to TRMT were redirected and redistributed among blending facilities in China, with no impact on production and sales volume in 2020. In May, loading operations at TRMT were resumed following appropriate health and safety protocols.

Voisey's Bay. In March 2020, the Company reduced its Voisey's Bay mining operation and placed it under care and maintenance as a precaution to help protect the health and well-being of the Nunatsiavut and Innu indigenous communities in Labrador in view of the COVID-19 pandemic. Vale took this preventive action due to the unique remoteness of the area, with fly-in and fly-out operations, and greater exposure for travel. In July 2020, production was resumed at the site, reaching full capacity in August 2020. The impact on nickel production due to care & maintenance at the Voisey's Bay Mine was mitigated by the operations underpinned by the Long Harbour refinery, providing nickel concentrate inventories already on site.

Azul Mine operations. In March 2020, manganese operations at the Azul Mine were suspended in the state of Pará, mainly based on the number of employees considered as a risk group, and to contribute to key personnel levels at iron ore production sites in the Northern System. Currently, the Company expects to keep operations suspended in 2021.

Coal Processing Plants in Mozambique. Due to travel restrictions and equipment transportation resulting from the COVID-19 outbreak, the Company is reviewing plans for the shutdown of Mozambique's coal processing plant, for a maintenance renovation. The shutdown of processing plant operations was scheduled to begin in the second quarter of 2020, but was rescheduled for November 2020 and started according to plan. After the completion of the works, a production pace of 15 Mtpy and greater sustainability of the business are expected.

Safety protocols. Since March 2020, the Company transferred a significant number of its employees to the remote work regime in an effort to mitigate the spread of COVID-19. Other measures of physical distancing were also implemented, including exchanges of operational areas, restriction of face-to-face meetings, test protocols, among others.

In the operational sites, different levels of protection were implemented to mitigate the risk of transmission of Sars-coV-2 virus which causes COVID-19. Anyone accessing the sites should complete a digital self-assessment for COVID-19 symptoms and potential exposure to Sars-coV-2 virus. Employees who need health support and information have access to hotlines designated to meet COVID-19 related needs. Additional screening at entry points has been implemented in the units globally, and an application to track proximity in case of contact tracking has been deployed to several of them.

In Brazil, Indonesia and Mozambique, this screening process included periodic workforce testing, using thousands of rapid antigen or serological tests. The local implementation of the plan also included rapid deployment and efficient monitoring of physical distancing, use of facial protection, access to hand disinfectant stations, and routine cleaning within locations and vehicles. Cafeteria routines have been adapted to provide individually packed meals. Finally, the employees identified as at higher risk for development of the severe form of the disease (Increased Risk Group) were removed from operations, and remained at home with full benefits awaiting vaccination before returning to the sites.

Humanitarian and financial aid. In 2020, Vale donated more than BRL 500 million to local governments in Brazil, the second largest amount given by a company in Brazil to fight COVID-19. It has also provided resources to governments and institutions in Canada, Indonesia and other countries where it operates. For 2021, USD 15 million (approximately BRL 80 million) were approved to be used in humanitarian aid actions related to COVID-19, including to support the Butantan Institute in the expansion works of the Multipurpose Vaccine Production Center, which is expected to have a production capacity of up to 100 million doses per year, and the donation of 50 million syringes and 280,000 PPE items to the Brazilian Ministry of Health. Vale also provided temporary financial assistance to its suppliers in Brazil. The initiatives included advancing payments to small and medium suppliers in Brazil, reducing payment terms for services and materials. It also financially supported construction companies and workers allocated in paralyzed works, for the purpose of reducing the flow of people in such works and increasing the safety of workers.

Vale continues to monitor the events of the COVID-19 pandemic. The situation is evolving and may have a significant impact on the Company in case of significant disruption to the supply chain or drop in customer demand.

Divestments

Sale Option Agreement of Vale New Caledonia. In December 2020, the subsidiary of Vale Canada Limited ("VCL") entered into a put option agreement for the sale of its stake in Vale Nouvelle-Calédonie S.A.S. ("VNC") with Prony Resources, a consortium of the current management and employees of VNC, supported by the Caledonian and French authorities and having Trafigura as a minority shareholder. As a result of the proposed transaction, Vale acknowledged a loss of USD882 million, which includes a USD500 million provision related to the commitment to provide resources for the continuity of operations and VNC and investments in converting the disposal of wet tailings to dry stacking. The transaction was approved by the VNC Workers' Council and is supported by the Caledonian and French governments. The sale operation was completed in March 2021.

Sale of VLI Shares. In December 2020, BNDES Participações S.A. ("BNDESPAR") exercised its option to purchase VLI shares held by the Company, representing 8% of VLI's share capital. Vale had granted this option to BNDESPAR under a share option agreement signed in 2015, related to an addendum to the deed of the debentures that were issued to finance the expansion project of Ferrovia Norte Sul S.A. ("FNS"), currently operated by VLI. In return for the purchase of these shares, Vale received BRL 1.223 billion (USD 241 million) on December 11, 2020. As a result of this transaction, Vale now holds 29.6% of VLI's total shares.

Total Divestment of Biopalma. - In November 2020, Vale sold 100% of the shares in Biopalma da Amazônia S.A. – Reflorestamento, Indústria e Comércio to Brasil Bio Fuels Pará Ltda., a company belonging to the Brasil Bio Fuels S.A. group, resulting in the total divestment of its palm oil business.

Sale of interest in Longyu. In August 2020, Vale completed the sale of its 25% stake in Longyu Energy Resources Co., Ltd. (Longyu) to Yongmei Group Co., Ltd (Yongmei), for CNY1.065 billion (equivalent to USD 156 million). Longyu produces metallurgical and thermal coal and other related products in Henan Province, China.

Sale of interest in Zhuhai YPM. In November 2020, Vale completed the sale of its 25% stake in Zhuhai YPM Pellet Co., Ltd. (Zhuhai YPM) to Zhuhai Yueyufeng Iron and Steel Co., Ltd. (YYF), for USD 13 million.

Transfer of shares of Potassio Rio Colorado. In February 2021, Vale completed the transfer of the shares of Potassio Rio Colorado to the Province of Mendoza, in Argentina.

Commitment Agreement with Mitsui. In January 2021, Vale signed a preliminary contract ("HOA") with Mitsui to structure Mitsui's departure from Vale Mozambique and Nacala Logistics Corridor ("NLC"). Mitsui holds a 15% stake in Vale Mozambique and a 50% stake in NLC. HOA provides that Vale will acquire Mitsui's stake in the mine and logistics assets for USD1.00 each, and take full control of the Project Finance from Nacala Corridor. In the event of closing of the transaction, Vale will also control NLC and, therefore, consolidate its assets and liabilities. After the acquisition of Mitsui's interests, and consequently simplification of governance and asset management, Vale will begin the process of divestment of its participation in the coal business, which will be guided by the preservation of the operational continuity of the Moatize mine and NLC, through the search for a third party interested in these assets. The definitive Investment Agreement with Mitsui was signed on April 19, 2021.

Divestment agreement of PT Vale Indonesia. In October 2020, in compliance with the divestment obligation under the contract of work, Vale Canada sold to Inalum, a state-owned mining holding company that oversees the state's mining investments, for USD 278 million, part of its stake in PTVI. After this transaction, Vale now holds approximately 45% of its stake in PTVI.

New projects

Capanema Project. In December 2020, Vale's Board of Directors approved the implementation of the Capanema iron ore project in the Southeastern System, located in the municipalities of Santa Bárbara, Ouro Preto and Itabirito, in Minas Gerais State, Brazil. This project includes investments in the Capanema mine for the resumption of facilities and acquisition of new equipment, implementation of a long-distance conveyor belt (TCLD) and adjustments in the storage yards of Timbopeba, totaling multi-year investments of USD 495 million, with a capacity of 18Mtpy, and start-up planned for the second half of 2023.

New Steel Project (NS04). In December 2020, Vale's Board of Directors approved the implementation of the NS-04 Project, located in the Vargem Grande complex in the city of Nova Lima, in Minas Gerais State. The project is expected to be the world's first industrial-scale dry magnetic concentration of fines, with multi-year investments of USD 125 million, with a capacity of 1.5 Mtpy. The start of operations is expected for the second half of 2022.

Solar - Sol do Cerrado Project. In December 2020, Vale announced the Sol do Cerrado project for the generation of solar energy, in the municipality of Jaíba, Minas Gerais State, Brazil. The Project includes the construction of a photovoltaic plant, including 17 sub-parks totaling an installed capacity of 766 megawatts peak (MWp). It also includes the implementation of lifting substation, transmission line and connection cell in the Jaíba Substation of 230 kV, with contracts signed for connection to the Brazilian National Interconnected System. The implementation of the project will require investments of around USD 500 million. The project will produce approximately 193 megawatt (MWa) of average energy per year for the Company's operations, corresponding to 13% of the estimated demand in 2025, and its entry into operation is planned for the fourth quarter of 2022. Solar generation, located in the Southeast region, also optimizes the generation profile of the Company's portfolio, which is based on water generation. The project was approved by the Board of Directors and is subject to the usual closing conditions, including the approval of the Brazilian Electricity Regulatory Agency (ANEEL).

Project West III (Zhejiang Province, China). In October 2020, Vale's Board of Directors approved the creation of a joint venture with Ningbo Zhoushan Port Company Limited ("Ningbo Zhoushan Port"), a subsidiary of Zhejiang Provincial Seaport Investment & Operation Group Co. Ltd. (Ningbo Zhoushan Port Group Co. Ltd.), to build, own and operate the Project West III in the Port of Shulanguhu, Zhoushan City, Zhejiang Province, China. Vale International and Ningbo Zhoushan Port will each have a 50% stake in the joint venture. The project consists of the expansion of the facilities of the Port of Shulanguhu, developing a storage yard and loading cradles with an additional capacity of 20 Mtpy. Investments for the project are estimated to be between USD110 million and USD160 million. By participating in the project, Vale will ensure a total port capacity of 40 Mtpy in Shulanguhu, which will help optimize its overall supply chain costs.

Opening of a grinding center in China. In August 2020, Vale opened the Shulanguhu Grinding Center, located in Zhoushan City, Zhejiang Province, China. Vale owns 100% of the grinding equipment, and the Ningbo Zhoushan Port subsidiary maintains and operates such grinding equipment in the Port of Shulanguhu through a service agreement. This is the first grinding hub in China, with three production lines and rated capacity of 3 million tons per year. The first product to be produced at the Grinding Center is GF88, a high-

content ground iron ore fine, which uses Carajás Fines (IOCF) as raw material, which offers an excellent environmentally correct solution for pellet production and supports steel customers in the challenge of reducing their carbon footprint, part of Scope 3 emissions.

Project Serra Sul 120 (Carajás). In August 2020, Vale's Board of Directors approved the implementation of the Serra Sul 120 Project, located in the municipality of Canaã dos Carajás, in Pará State, Brazil. The project consists of increasing the S11D mine-machined capacity by 20 Mtpy, to a total of 120 Mtpy on site. The project has total multi-year investments of USD 1.5 billion and its start of operation is planned for the first half of 2024. The project will create an important buffer of productive capacity, ensuring greater operational flexibility to face possible production or licensing restrictions in the Northern System.

JV with Kobe Steel and Mitsui. - In July 2020, the Company entered into a non-binding agreement to establish the preliminary terms and conditions for the creation of a new venture ("NewVen") to supply low-GHG (greenhouse gas) metallic minerals and steelmaking solutions for the steel industry with Kobe Steel, Ltd. and Mitsui & Co., Ltd. NewVen's potential creation has the primary purpose of delivering low CO₂ metallic minerals to the global market, providing new technological solutions to clients and will use existing and new CO₂ iron-making technology, such as TecnoRed® technology and the Midrex® process.

Resumption of Samarco operations

In December 2020, Samarco began the gradual resumption of its operations, with the integrated resumption of iron ore extraction and processing in the Germano complex, located in Mariana, Minas Gerais State, and pelletizing in the Ubú complex, located in Anchieta, Espírito Santo State. Samarco's operations are being resumed with production capacity of approximately 7 to 8 Mtpy, with the use of one of the three concentrators for iron ore processing in the Germano complex and one of the four pelletizing plants of the Ubu complex, representing 26% of Samarco's production capacity. The integrated restart of operations occurs after extensive commissioning tests after the five-year stop. Samarco will use new tailings disposal processes, reflecting its commitment to sustainable recovery and operational safety.

With the implementation of the filtration process, Samarco hopes to be able to substantially dehydrate sand tailings, which account for 80% of the total volume of tailings, and to safely stack these filtered sand tailings in piles. The remaining 20% of the tailings must be deposited in the Alegria Sul mine, bedrock self-contained structure, safer than a tailings dam. Additionally, Samarco is advancing the decommissioning of the Germano dam, following the required safety standards. Samarco operates a real-time Monitoring and Inspection Center to monitor the stability and safety of its geotechnical structures.

Renewal of railway concessions

Vale has entered into the concession agreements for Vitória to Minas ("EFVM") and Carajás railroad ("EFC"), in order to formalize the renewals of concessions that would expire in 2027 for an additional period of 30 years. As a result, the EFVM and EFC leases will now expire in 2057. For further information, see item 7.3 (subitem 4.1.1) of this Reference Form.

Tailings Dam Rupture in Brumadinho

On January 25, 2019, a tailings dam ruptured at the Córrego do Feijão mine in the city of Brumadinho, Minas Gerais State. The dam breach released a stream of tailings, which submerged the Company's administrative area in the Córrego do Feijão mine and hit parts of the communities of Córrego do Feijão and Parque da Cachoeira on the outskirts of Brumadinho, and in the vicinity of the Paraopeba River. The dam breach resulted in 270 fatalities, including 11 victims still missing, and caused extensive damage to property and the environment in the region.

Vale will never forget Brumadinho. Vale reaffirms its respect for the victims and their families, prioritizing the fair and agile reparation of Brumadinho. As it moves on its way to making its business better by valuing people, safety and reparation, Vale remains steadfast in its commitment to becoming one of the safest and most reliable mining companies in the world.

Reparation and remediation efforts

Vale provides humanitarian assistance to victims and their families from the earliest moments. Its emergency actions to support the affected people and region included psychological and health care, financial assistance, reception, food and other essential items, transportation and logistics, emergency security measures, and infrastructure works, rescue and animal care, infrastructure for water supply to the metropolitan region of Belo Horizonte, support to authorities and donations to municipalities, among other things.

Until February 2021, more than BRL 13 billion were allocated to pay compensation to affected people, infrastructure works, and environmental and socioeconomic reparation actions. Environmental reparation activities span 22 municipalities located along the Paraopeba River, and involve sediment containment and removal, monitoring of water quality, and preservation and restoration of fauna and flora.

In 2020, Vale completed the works of one water collection pipeline and revitalization of artesian wells in Vetor Norte which were part of the alternative works to serve the Metropolitan Region of Belo Horizonte. In early 2021, the construction of a water collection pipeline in the Pará river, in the city of Pará de Minas, as part of the construction of new water supply systems to serve the population of Pará de Minas. Vale hopes to deliver a third, on the Paraopeba River, in the first half of 2021. It also completed essential works of social infrastructure, with the delivery of a day care center and a health unit to the communities of Parque da Cachoeira, and a school for 400 students to the community of Macacos, both in the Minas Gerais State. In Brumadinho, Vale is renovating a multi-sport gym complex and all 16 public schools.

In September 2020, Vale announced the Comprehensive Reparation Program, a comprehensive reparation program for the damage caused by the Brumadinho dam breach. The program is the result of an open dialogue with the affected authorities and communities, and includes 166 initiatives and projects, including, but not limited to:

- Actions to improve the quality of life and generate jobs for the residents of Brumadinho through social projects to transform the local reality and bring more dynamism to the local economy. As an example, Vale provided the installation of 700 km of fiber optic cabling, with wi-fi access points, increasing the availability of internet network in the region.
- Social service programs for affected parties.
- Forest recovery, protection of fauna, fish and plant species, as well as constant monitoring of water quality and studies to assess risks to human health.
- Urban and social infrastructure construction projects.

- Other actions aimed at returning normality to evacuated communities.

The Comprehensive Reparation Program follows the recommendations contained in the February 2020 report of the Independent Ad Hoc Advisory Committee for Support and Reparation (CIAE-AR), an ad hoc committee created by the Board of Directors to monitor measures to support the affected community and remedy the affected area. In January 2021, a consulting company conducted an external evaluation, reviewed the actions taken by Vale and concluded that approximately 82% of the recommendations were met and the other 18% are in line with the service schedule and commitments. Additional information is available on the ESG Portal, at www.vale.com/esg. The information on the website is not incorporated by reference in this Reference Form.

Vale knows that much remains to be done to redress Brumadinho completely and reaffirms its commitment to do so. For more information on the updated status of its actions carried out to date, see the following site: vale.com/repairoverview. The information on the website is not incorporated by reference in this Reference Form.

Dam safety measures

Vale has implemented a series of initiatives to improve its tailings and dam management process and improve dam safety.

De-characterization of upstream dams. Vale's main initiative is the de-characterization of all 30 of its upstream structures in Brazil, including dams, dikes and drained piles. An upstream structure is a high structure using the upstream raising method, in which the body of the structure is constructed using the thick tailings settled on the reservoir, placing them successively in layers upwards and in the opposite direction to the water flow (upstream). This is the same method of construction of the Brumadinho dam. The term "de-characterization" means functionally reintegrating the structure and its content to the environment, so that the structure no longer serves its primary objective of acting as a containment of tailings. Recently approved laws and regulations require that all upstream structures be de-characterized on a specified schedule, based on projects agreed with the authorities.

- De-characterizing an upstream structure is a complex process and can take time to complete with proper safety care. Studies related to the de-characterization process can influence the conditions of geotechnical stability and increase the risk of such structures. For further information, see item 4.1 of this Reference Form. Vale conducts detailed engineering studies for each structure to be de-characterized, and it may be necessary to improve the construction or build additional downstream containment structures (back-up dams) to proceed safely with the de-characterization. For example, for certain dams, Vale has to build downstream containment structures to ensure the retention of tailings in the event of rupture .
- The de-characterization plan was updated in 2020 and currently there are 25 geotechnical structures to be de-characterized (including 14 dams, 09 dikes and 2 drained piles)³ built by the upstream raising method. The plan also includes the construction of six⁴ containment structures (back-up dams) for certain dams to retain tailings in the event of dam rupture, protecting the downstream area during the de-characterization works.
- Vale completed the de-characterization of five of the 30 original upstream structures. Between 2019 and 2020, it completed the de-characterization of Rio do Peixe⁵, II Kalunga and III Kalunga dikes and, 8B and Pondes de Rejeitos⁶ dams. In 2020, it also completed the construction of two containment structures (back-up dam), one for the Sul Superior dam and the other for B3/B4 dam, and the first phase of the back-up dam for Forquilha I, Forquilha II, Forquilha III, Forquilha IV and Grupo dams. In

⁴ Update of the classification criteria for geotechnical and containment structures.

⁵ Waiting for the evaluation of the decharacterization by the National Mining Agency and the State Environmental Foundation.

⁶ Awaiting the evaluation of the de-characterization by the National Mining Agency.

2021, Vale expects to complete the de-characterization of the Fernandinho dam and Dike 5 of Pontal, in addition to completing containment structure (back-up dam) of Forquilha I, Forquilha II, Forquilha III, Forquilha IV and Grupo and, the reinforcement of the Dike 4 of Pontal.

- Vale also operates tailings dams in Canada and New Caledonia, including dams compacted upstream the outer hull in Canada. Vale does not plan to de-characterize these upstream dams for the time being, as there are no safety, technical or regulatory reasons to do so. In Mozambique, the only tailings dam is no longer active and a closure plan is currently at the conceptual phase.
- The Samarco joint venture has two upstream tailings dams, inactive and in accordance with the project currently approved. After the Samarco dam breach in 2015, emergency works were carried out to ensure the necessary stability and comply with the applicable regulations. Samarco is implementing a closure plan and long-term monitoring will be defined as part of the de-characterization of both structures. The investee Mineração Rio do Norte ("MRN") has 24 tailings dams, 13 of which are active, while the other 11 are inactive. The two upstream dams in this portfolio are inactive and have de-characterization plans in progress.
- The de-characterization process is important to reduce the long-term risk of upstream tailings structures, but the works needed for the de-characterization process may impact the geotechnical stability of certain upstream tailings installations, increasing the risk of breach of these structures, especially during the first phases of this process. To mitigate this risk, Vale has evacuated the downstream areas of critical dams and is building downstream containment structures (back-up dams), to contain tailings in the event of breach. To mitigate the risk of loss of life, Vale is considering alternatives to carry out the works on these critical dams with remotely operated equipment, and the project is being reviewed with appropriate redundancy levels.
- In 2020, Vale spent a total of USD293 million on the de-characterization of dams. As of December 31, 2020, it had a provision of USD2.289 billion recognized in its balance sheet for the de-characterization of upstream structures.

Monitoring and precautionary measures- Vale has been closely monitoring all active and inactive dams. Among other measures to improve its tailings and dam management system, Vale has dedicated teams with improved governance and revised processes and standards. Vale has created three geotechnical monitoring centers since 2019 to continuously monitor dams and collect information for better decision making. It implemented 24-hour video monitoring, emergency sirens, water level monitoring in different areas of monitoring of images of dams, satellites, drones and radars.

In accordance with applicable Brazilian regulations, Vale must send the authorities a stability certification (Stability Condition Statement, or "DCE") from an independent expert for each of its dams. For 104 of its geotechnical structures, the DCE must be presented every six months, on March 31st and September 30th of each year. If Vale is unable to meet the safety requirements for the issuance of DCE of a given dam, it needs to take certain emergency actions based on the Mining Dam Emergency Action Plan ("PAEBM") for this dam, which may include the suspension of related operations, evacuation of the area around the dam, and removal of communities.

- In January 2020, Vale implemented the role of "Engineer of Record" ("EoR") for its iron ore business, responsible for conducting regular dam safety inspections for each dam, as well as issuing monthly technical reports, in a continuous supervision model. This is yet another line of defense for dam safety, under which, if a change in the stability of any of its structures is identified, a new audit process can be initiated to issue or revoke a DCE at any time. Vale implemented continuous monitoring through an EoR in all 104 structures.
- On December 31, 2020, an EoR issued DCEs for 72 structures (61 structures in ferrous mineral operations and 11 in base metal operations). Vale did not obtain DCEs for 32 structures (all in ferrous mineral operations).

- In 2019 and 2020, Vale relocated 1,415 people living in the self-rescue areas of the South Superior dams (in Barão de Cocais, Minas Gerais State), the Vargem Grande dam and the B3/B4 dam of the Mar Azul mine (in the city of Nova Lima, Minas Gerais State), the Doutor (in Ouro Preto, Minas Gerais State) and Forquilhas I and 2 (in Itabirito, Minas Gerais State) dams.

Additional information on the status of DCEs and emergency levels of their structures is available on the ESG Portal at www.vale.com/esg. The information on the website is not incorporated by reference in this Reference Form.

Review of active and inactive mining sites. Vale is reviewing its active and inactive mining sites to improve geotechnical management and ensure compliance with applicable rules. As part of its ongoing review of its mining sites, Vale may identify other structures that should be classified as dams in accordance with applicable regulations, which may trigger additional obligations or precautionary measures. These measures can impact production, cause operations to be suspended, and generate additional costs, which can materially and adversely affect its business.

Stabilization of production. In 2020, Vale partially resumed all iron ore fine operations that were halted in 2019.

Agreements Executed.

Vale has actively sought non-judicial alternatives to promote faster reparation for the people impacted and to settle the various lawsuits related to the Brumadinho dam breach. Please find below a summary of the main agreements entered into so far.

Global Settlement for Integral Reparation. On February 4, 2021, Vale signed a judicial settlement agreement with the Government of the State of Minas Gerais, the Public Defender's Office of the State of Minas Gerais - "DPMG", Public Prosecutor's Office of the State of Minas Gerais - "MPMG", and the Federal Public Prosecutor's Office ("MPF") for the reparation and compensation of socio-environmental and socioeconomic damages resulting from the Brumadinho dam breach (the "Global Agreement"). This agreement was mediated by the Court of Appeals of the State of Minas Gerais.

- According to the Global Settlement, Vale agreed to a series of socioeconomic and socio-environmental reparation projects, with an estimated economic value of BRL 37.7 billion. The agreement includes obligations to (i) finance certain agreed socioeconomic and socio-environmental projects that will be managed by the State of Minas Gerais or the institutions of justice, subject to a fixed disbursement schedule of predefined amounts, and (ii) directly implement certain projects established in the Global Agreement. The estimated economic value of the Global Agreement includes (i) disbursements prior to the date of signing of the agreement, with scope similar to the agreement, in the amount of BRL 7.8 billion; (ii) disbursements necessary for the implementation of projects to be managed by the authorities, in the total amount of BRL 19.2 billion, (iii) estimated costs of socioeconomic reparation projects to be implemented by us, subject to a ceiling of BRL 5.7 billion and (iv) the estimated costs of BRL 5 billion of environmental recovery projects to be implemented by Vale. The estimated costs of the projects to be implemented by Vale are not a limit to its commitments under the Global Agreement.
- The projects covered by the agreement are in line with the Comprehensive Reparation Program and include (i) projects demanded by the affected communities, (ii) an income transfer program for the impacted population, replacing the current payment of emergency aid, (iii) projects for the city of Brumadinho and the other municipalities of the Paraopeba Basin; and (iv) transfer of funds to the State of Minas Gerais for the implementation of an urban mobility program, and (v) a program to strengthen the public service.

- This agreement closes certain requests for public civil actions in which public authorities claim compensation and a wide range of precautionary measures against Vale as a result of the Brumadinho dam breach. Part of the commitments entered into under the agreement were settled with the release, for the benefit of the authorities, of judicial deposits that had been made in the amount of BRL 5.4 billion (USD 1.039 billion), to be used in the implementation of the Global Agreement projects. Claims for divisible individual damages are excluded from the Global Agreement. For further information, see item 4.7 of this Reference Form.
- The obligations established in the Global Agreement will be fulfilled through (a) the full payment of Vale's financial commitments, in accordance with the amounts and payment schedule defined for the projects managed by the State of Minas Gerais and judicial authorities, and (b) Vale's completion of the projects to be implemented directly by it, which mainly include socio-environmental and socioeconomic reparation projects.
- The Global Settlement also establishes guidelines for the governance and implementation of the Comprehensive Reparation Program.

As a result of the Global Settlement and based on its expectations of cash disbursement, Vale recognized a provision of BRL 19.924 billion (USD 3.872 billion) in its fiscal year 2020.

Other agreements. Vale has signed other agreements with public authorities to establish individual compensation parameters for victims, for individual agreements with victims.

- Preliminary Agreement of February 2019. In February 2019, Vale signed a preliminary agreement with the State of Minas Gerais and other public authorities, according to which it committed to make monthly emergency aid payments to the residents of Brumadinho and certain communities located downstream the dam, from January 2019 to February 2021. By March 18, 2021, the total amount paid as emergency aid was approximately BRL 2 billion, and such amounts were recognized within the BRL 37.7 billion of the Global Agreement. Under the Global Agreement, Vale will provide BRL 4.4 billion to the income transfer program that will replace monthly emergency aid payments. This program will be managed and operated by the judicial authorities.
- Commitment Agreement of April 2019 with the Public Defender's Office of the State of Minas Gerais. In April 2019, Vale signed a Commitment Agreement with the Public Defender's Office of the State of Minas Gerais, to set the parameters for the execution of out-of-court agreements in connection with actions for indemnification for material damages and other economic and moral damages. As of March 18, 2021, Vale had entered into more than 3,500 indemnity agreements with more than 7,670 individuals affected by the dam breach, providing for payments in the total amount of approximately BRL 1,300 million. These parameters were also used to determine the parameters for payment of indemnities in other municipalities where evacuations occurred due to the increase in the emergency level of some dams. By March 18, 2021, Vale had signed more than 1,100 indemnity agreements with individuals or groups affected by the evacuation of certain areas, providing for payments amounting to approximately BRL 500 million.
- Agreement with the Labor Prosecution Office and Labor Unions. In July 2019, Vale signed an agreement with the Labor Prosecution Office to indemnify the families of the victims of the dam breach. By March 18, 2021, Vale had entered into more than 675 indemnity agreements with individuals or groups in accordance with this agreement, providing for payments to relatives of 249 workers (of the 250 deceased workers), in the total amount currently greater than BRL 1,180 million. In March 2020, Vale signed an agreement with labor unions, establishing the amount of compensation to be paid to surviving workers and workers stationed in the Córrego do Feijão and Jangada Mines. By March 18, 2021, Vale had entered into more than 700 indemnity agreements with individuals or groups in accordance with this agreement, providing for payments amounting to approximately BRL 102 million.
- Other agreements. Vale has signed other agreements with authorities to cover specific issues, such as support to municipalities in the provision of public services and infrastructure, emergency payments to indigenous communities, specific remediation and compensation measures, external audits and asset integrity studies, provision of technical support to the authorities, with measures to review and strengthen structures and suspend operations.

Other lawsuits and investigations related to the Brumadinho dam breach continue, and further investigations and legal proceedings may be initiated in the future. For further information, see items 4.3 to 4.7 of this Reference Form.

Cultural transformation

Vale is promoting a cultural transformation, seeking to put security, people and reparation at the center of its decisions. As part of this effort, it believes that five key behaviors should be present throughout the organization:

- Obsession with safety and risk management.
- Open and transparent dialogue.
- Empowerment with responsibility.
- Responsibility for the whole.
- Active listening and engagement with society.

In 2019, Vale began the large-scale implementation of the Vale Management System (VPS) model to leverage the cultural transformation process. Through the development of people, the standardization of processes and operational discipline, the VPS inserts and reinforces, in the operational routine, the key behaviors and protocols in strategic themes for Vale.

In 2020, Vale carried out a cultural evaluation that indicated the need to build a culture of learning together, with humbleness, discipline, sense of collectivity, and mainly constant surveillance over safety. Based on the results of this assessment, Vale promoted a series of initiatives to strengthen controls and corporate governance and to promote changes in its internal organization, culture and its ability to identify risks and take action to face them. These initiatives also reflect its responses to the recommendations it received in the report issued in February 2020 by the Independent Consulting Committee for Investigation (CIAEA). Vale has established a schedule of actions to comply with CIAEA recommendations and by 2020, approximately 90% of these recommendations have already been fully met. Vale expects to meet the remaining recommendations by December 2022. Additional information on the status of its actions in response to CIAEA recommendations is available on the ESG Portal at www.vale.com/esg. The information on the website is not incorporated by reference in this Reference Form.

Vale also develops a project called "Vale's purpose", which involved 60 leaders who recovered Vale's history and essence. In 2021, it defined its purpose as: "We exist to improve life and transform the future. Together." The goal is a clear orientation to actions and objectives, and is supported by four pillars: (i) serving society, returning value to all, (ii) doing together, (iii) using the mobilizing capacity to do something extraordinary, and (iv) transforming the future, taking care of the present.

Samarco Tailings Dam Breach in Minas Gerais

In November 2015, the breach of Fundão tailings dam owned by Samarco Mineração S.A. ("Samarco") occurred, discharging tailings downstream, flooding certain communities, and impacting communities and the environment along the Doce River. The breach resulted in 19 fatalities and caused material and environmental damage to the affected areas. Samarco is a joint venture also controlled by Vale S.A. and BHP Billiton Brasil Ltda. ("BHPB").

In June 2016, Samarco, Vale and BHPB, in agreement with the public authorities and justice institutions, created the Renova Foundation, a private non-profit foundation, to develop and implement (i) socioeconomic compensation and remediation programs, and (ii) environmental compensation and remediation

programs in the region affected by the dam breach. The Renova Foundation has been implementing 42 remediation programs established in the agreements signed with the government, following the governance mechanisms established in these agreements.

- In August 2020, Vale announced the "Integrated Agenda" program, an agreement between the Renova Foundation, the States of Minas Gerais and Espírito Santo and an association of mayors of cities along the Doce River, providing for the allocation of BRL 882 million for investments in education, infrastructure and health in the region affected by the Samarco dam breach.
- In July 2020, the 12th Federal Court of Belo Horizonte handed down a decision establishing guidelines for compensation to residents of the municipality of Baixo Guandu, followed by other decisions that defined simplified parameters for the compensation of workers (mainly informal), in at least 20 cities and towns in the States of Minas Gerais and Espírito Santo. These parameters can be reflected in other cities along the Doce River. As of March 10, 2021, more than 6,500 workers had received payments through this new simplified compensation mechanism.
- For a discussion of the financing of the Renova Foundation and the impact on Vale's financial statements, see item 10.3 of this Reference Form.
- For information on the lawsuits arising from the Samarco tailings dam breach, Vale's agreements with the government and the creation of the Renova Foundation, see items 4.3 to 4.7 of this Reference Form.
- For more information on Renova Foundation's actions, please refer to the following website: <http://www.vale.com/esg/en/Pages/RenovaFoundation.aspx>. The information on the website is not incorporated by reference in this Reference Form.

Since the breach of the Fundão tailings dam, Samarco has been the subject of extensive legal proceedings and is in a financial crisis situation. In April 2021, Samarco filed a request for judicial reorganization in order to preserve its recent operational resumption, jobs and compliance with its socio-environmental obligations. The request for judicial reorganization does not impact and will not impact the fulfillment of the reparation commitments undertaken due to the breach of the Fundão tailings dam.

Other Company Information

Business Strategy

In 2020, Vale took important steps to build a better Vale. Vale's objective is to be a company recognized by society for being: (i) a reference in safety; (ii) the best and most trusted operator in its class; (iii) a talent-oriented organization; (iv) leader in low carbon mining, and (v) a reference in the creation and generation of shared value. Vale is committed to the reparation of Brumadinho and the transformation of natural resources into prosperity and sustainable development, based on the following main strategic pillars:

- Safety and operational excellence

- New pact with society.
- Maximizing flight-quality in iron ore.
- Transformation of base metals.
- Discipline in capital allocation.

Please find below a summary of the main milestones in the Company's strategy.

Safety and operational excellence.

Vale has the ambition to become a reference in safety with clear targets by 2025: (i) no record of high potential injuries, (ii) a 50% reduction in employees' exposure to key health risks, (iii) reduction or elimination of very high risk scenarios. Its process safety program begins with hazard identification and risk assessment ("HIRA"), identifying the most critical risks of the process and their respective controls. Vale identified about 790 critical risks and more than 8,500 critical controls. Monitoring the integrity of these controls has become part of the daily maintenance routine. By March 2021, Vale implemented HIRA on 95% of its sites.

Vale is improving its tailings and dam management system for the adoption of known best practices. This initiative is organized around three pillars: routine, performance appraisal and risk assessment (known as RPR Management System). Vale is committed to adopting the Global Industry Standard on Tailings Management (GISTM) and expects to be well positioned to adhere to these standards by the end of 2021. Vale is strengthening its tailings and dam management system, improving the conditions of its dams and working closely with engineers of record, it is also de-characterizing its upstream geotechnical structures (including dams, dikes and drained piles) in Brazil.

The implementation of its integrated management system, known as "VPS" (Vale Production System), is strategic to become a reliable operator and support its cultural transformation. VPS will integrate its processes and systems into a single framework, allowing it to work with unified goals in a standardized manner. VPS promotes the creation of a safer work environment and a more effective problem-solving process within the company. It consists of three dimensions: leadership, technical and method, which strengthen the organizational culture through the development of people, standardization of best practices, operational discipline, and compliance with routine. With this, Vale will redefine the path of operational excellence as a more humane, safe and sustainable company. All its employees are trained to support full engagement.

New pact with society

Vale is committed to fully integrating sustainability into its business through a comprehensive approach, based on systematic planning and execution, prioritizing risk and impact management, and establishing a positive social, economic and environmental legacy in the places where we operate. Its ESG-related practices are evolving.

The Company increased its engagement with socially responsible investors and key ESG stakeholders through webinars, road shows and the development of a dedicated website, the ESG Portal. It also reviewed studies of the leading ESG index consultants and suppliers (such as ISS, Glass Lewis, MSCI, Sustainalytics, Responsible Mining Index, Dow Jones Sustainability Index) and identified approximately 63 gaps in relation to ESG best practices. Based on this assessment, an ESG action plan was mapped to address these gaps. After the tailings dam breach in Brumadinho, Vale decided to strengthen its interactions with ESG stakeholders to discuss a number of issues related to strategy, risk and governance, and accelerate its ESG aid initiatives. Vale is committed to eliminating its ESG gaps by 2030 ("Commitments 2030").

The ESG Portal offers greater transparency on initiatives.

Please find below highlights of ESG's key achievements in 2020 and ongoing initiatives:

Environmental

Climate Changes. Vale is committed to leading the transition to a carbon neutral mining industry. It is committed to contributing with solutions that help limit the rise in global average temperature well below 2°C, as set out in the Paris Agreement. The Company endorses and follows the framework of the Climate-Related Financial Disclosure Task Force (TCFD) for risks and opportunities related to climate changes. The Company goals in connection with climate change risk management are ambitious, including targets to reduce absolute emissions of Scopes 1 and 2 by 33% by 2030, with 2017 as a baseline, and to become carbon neutral by 2050. Vale recognizes that it can only lead the mining industry toward a low-carbon economy if it induces its value chain in the same direction. Scope 3 emissions, verified annually by independent third parties, represent 98% of the Company's total emissions and are not under its direct control. In 2020, the Company committed itself to the goal of reducing net emissions of scope 3 by 15% by 2035, having 2018 as a baseline, which are based on the development of new products, solutions based on nature, partnership and engagement with customers and suppliers. The scope 3 goal will be revised every five years, given uncertainties regarding low-carbon technologies and climate policies. Both goals are in line with the ambition of the Paris Agreement.

- *Scope 1 and 2 de-carbonization plan:* The Company built a bold roadmap, with clear milestones, to meet the reduction targets in Scopes 1 and 2. Vale will invest USD 2 billion over the next 10 years to develop low carbon solutions, such as electrification, use of biofuels and generation and use of renewable electricity. The current portfolio of initiatives consolidates more than 35 projects, prioritizing the most competitive initiatives in terms of costs to reach the 2030 target, based on a Marginal Cost Reduction Curve (MAC Curve). All investment decisions are subject to an internal price of USD 50 per ton of CO₂e to stimulate investments in the reduction of greenhouse gases (GHG), partly by incorporating a more restrictive regulatory scenario,

and as a tool for assist in the implementation of emission reduction goals. Vale intends to reduce GHG in its operations by increasing the energy efficiency of its processes, and developing solutions based on replacing the usual energy sources with greener alternatives. These initiatives include, among others, the use of biofuels to replace fossil fuels, electrification of equipment and processes, the use of alternative fuels such as electrofuels, carbon capture technologies, and the development of alternative processes.

- *Scope 3 de-carbonization plan:* More than 90% of the Company's Scope 3 emissions occur due to the processing of iron ore in the steel industry. Vale identified two pillars of the scope 3 roadmap: (i) portfolio differentiation, with high quality products and low CO2 iron production technologies and services for the steel industry; and (ii) partnerships in navigation and in the steel sector. The Company can compensate up to 20% of the goal with nature-based solutions.

In 2020, the Company used its best efforts to reduce greenhouse gas emissions and mitigate climate change, and spent USD 80.2 million on these initiatives.

Energy. The three pillars of the Company's energy initiatives are: (a) renewable electricity, (b) energy efficiency and (c) transformation of the energy matrix. Approximately 68% of the electricity consumed by Vale's operations in Brazil is self-generated energy from renewable sources. The goal is to achieve electric self-sufficiency from renewable sources in Brazil by 2025 and to meet 100% of global consumption through renewable electricity by 2030.

Water. Vale is committed to reducing the use of fresh water in its activities, investing in new technologies, expanding its monitoring network and other initiatives to control total water capture, mainly through the promotion of water reuse. Currently, it is developing programs and implementing actions that go beyond compliance with legal requirements to optimize the use and consumption of water. The reuse of water represents 80% of the Company's total production demand in 2020. The Company wants to reduce by 10% the new water captured and used in the processes per ton produced, which means a smaller volume of fresh water captured for the same production volume. In 2018, the goal was set to reduce the new water collection by 10% by 2030. This commitment aims at providing lower intake of fresh water per ton produced, as compared to 2017. By 2020, water intake has already been reduced by 8.7%, from the 10% reduction forecast for 2030.

Forest conservation. The Company's ambition is to act as a global catalyst for forest conservation and reforestation. Currently, it helps to protect 1,018,405 hectares of forest as a result of compensation measures, voluntary initiatives and partnerships. Vale is committed to protecting 400,000 hectares and reforesting an additional 100,000 hectares by 2030, reinforcing its 2018 target. Accordingly, in 2020, 54 thousand hectares of protected forests were added in conservation units.

Waste. In 2020, Vale approved its Waste Policy to encourage the transition from waste management to a circular economy perspective. This transition is possible due to innovation. In the policy, dry processing was also prioritized, in line with the goal of reaching 70% dry processing by 2024.

Social

Human rights. Vale is committed with the United Nations Guiding Principles on Business and Human Rights. We have had a Global Human Rights Policy since 2009. In 2019, the policy was revised after a public consultation process. Most of the contributions received through the process have been taken into account. In 2020, Human Rights became part of Vale's Integrated Global Risk Map. Since then, Vale's operations have included its risk assessment of human rights, mitigation controls and action plans in our global

management system. In 2020, the human rights due diligence strategy and methodology was also revised and a roadmap for its implementation in the next five years was developed.

Gender Equality. It was announced the goal to double the female workforce by 2030, from 13% to 26%, and to increase the female presence in leadership positions from 12% to 20%. The average salary per gender and seniority level was also disclosed. In 2020, 16.3% of female representation was achieved, an increase of 26% in the total number of women at Vale compared to 2019, and 15.9% of women in senior leadership were reached (executive manager positions and above), a 28% increase in the representation of women in senior leadership positions, as compared to 2019.

Health and Safety. The Company is committed to improving the health and safety of its workers. The long-term objectives are: (i) no record of zero high-potential injuries, (ii) a 50% reduction in employee exposure to the top 10 health risks by 2025, and (iii) reduction or elimination of the most significant risk scenarios by 2025.

Socioeconomic Contribution. The Company is committed to positively impacting society, investing in actions and socioeconomic projects, with a focus on community development. In particular, it is investing in actions that contribute to the development and improvement of infrastructure and urban mobility, traditional communities, education, culture, health and the generation of work and income in the regions where we operate. The Company spent approximately USD 390 million on social initiatives in 2020, 56% of which were spent on voluntary programs, 13% on Brazilian tax-free initiatives, and 31% on mandatory programs.

Indigenous Peoples and Traditional Communities. Vale's guidelines in relation to indigenous peoples and traditional communities are based on the ICMM position statement on mining and indigenous peoples, the Convention on Indigenous and Tribal Peoples of the International Labor Organization (ILO) and the United Nations Declaration on Human Rights of Indigenous Peoples (C169). The Company is committed to respecting the principle of Free, Prior and Informed Consent (FPIC), which involves a process of information, negotiation in good faith, and authorization for indigenous or traditional communities to make decisions freely. Vale has defined the expansion of its engagement with indigenous peoples as one of its strategic planning pillars. This pillar consists of three main fronts: preservation of cultural memory, support to the role of indigenous peoples, and implementation of sustainability programs.

Community involvement. In order to engage communities and other local players in the regions where it operates, the Company established spaces for structured dialogue for the preparation of "Relationship Plans" with the communities in the regions in which it operates. These plans have as basic principles: (i) social engagement in the definition and prioritization of the initiatives to be implemented in the communities; and (ii) the use of participatory meetings to monitor performance, evaluating the adherence and effectiveness of the results with the communities. In 2020, Relationship Plans were developed with more than 450 communities and more than 430 projects were carried out.

Channels were also structured to strengthen Vale's relationship with stakeholders. Through these channels, the Company promotes dialogue and improves its relationship management processes, anticipating and dealing with risks, impacts and possible conflicts and violations of rights. In 2020, 15,559 community contacts were received through these channels, where 99.01% were answered and 72.6% were solved.

Governance

Since 2018, Vale has been listed in the Novo Mercado segment, the highest level of governance at B3. The Company has invested in improving its corporate governance, with references to the best national and international practices, and developing its understanding of the investors' perspective on these matters.

Board of Directors. At a shareholders' meeting held on March 12, 2021, Vale's shareholders approved several amendments to the articles of incorporation to improve the Company's governance. The main changes are described below.

- *Majority of independent directors.* The Company's Board of Directors must consist of 11 to 13 members and one alternate member, and at least seven of these members must be independent. Thus, since the last annual shareholders' meeting, held in April 2021, the Company has had a Board of Directors composed of the majority of independent members. The Company has also adopted more stringent requirements for a candidate to be considered independent. Previously, the Board of Directors was composed of 13 members and 13 alternate members, and the articles of incorporation required that more than three members or 20% of the members of the Board of Directors were independent. For more information, see item 12 of this Reference Form.
- *Lead Independent Director.* The Company's Board of Directors must now have a Lead Independent Director (LID), if the chairman is not an independent director. The LID will be elected among and by the independent directors. The LID will act together with the Investor Relations department as an alternative point of contact for investors and will be a mediator between the Chairman of the Board of Directors and the other directors.
- *Individual election for directors.* Shareholders will now vote to elect the members of the Board of Directors individually (instead of voting for a list of candidates).
- *Election of the chairman and vice chairman.* The shareholders will now elect the chairman and vice chairman of the Board of Directors directly. Previously, the chairman and vice chairman were elected by the directors.
- *No alternate members.* Alternates will no longer be elected for the Board of Directors (with the exception of the alternate for the director elected by employees, as required by law).

Committees of the Board of Directors. In 2020, additional measures were taken to improve the governance structure, establishing the Audit Committee and the Nominating Committee. The creation of these committees is an important step in the evolution of the Company's corporate governance model. With the Audit Committee, the Company now has a specialized committee to directly assist the Board of Directors in supervising internal audit activities, the area of internal controls and the area responsible for preparing Vale's financial statements, among other duties. The Nominating Committee is a permanent committee of direct advice to the Board of Directors, proposing improvements related to the structure, size and composition of the Board, in addition to recommending the skills, profiles and potential candidates for the Board, so that the plurality of arguments and a decision-making process with quality and care may continue, taking into account the best practices of law, ethics and corporate governance. In 2021, the Innovation Committee was also created, which will be responsible for analyzing new technologies and other initiatives to improve the Company business. Finally, the People, Compensation and Governance Committee is responsible for evaluating the compensation model for executive members, as well as the proposal for a global annual budget for executive compensation, among other matters. For further information, see item 12 of this Reference Form.

Compensation. Vale is committed to aligning its compensation programs with its business strategy and the objective of making Vale a safer company. A series of changes were implemented, such as the adoption of a malus clause and a reimbursement policy according to which, in the case of events of exceptional severity, the Board of Directors can reduce the executives' variable compensation or require executives to return the amounts received, and the implementation of new share ownership guidelines for executive officers. For 2020, new standards were approved for Executive Officers' compensation: for short-term compensation, at least 30% of performance targets will be guided by ESG and directly related to safety, risk management and sustainability goals, and with respect to long-term compensation, at least 20% of performance targets will be based on ESG metrics. In general, 12% of the total compensation will be linked to ESG metrics. For further information, see item 13 of this Reference Form.

Risk Management. In 2020, with a focus on continuous improvement in risk management and governance, a new executive risk committee was created to better monitor and discuss sustainability and reputation risks. There are now five executive committees created to assist the Company's management with respect to each of these risks: (i) operational risks, (ii) geotechnical risks, (iii) strategic, financial and cyber risks, (iv) compliance risks, and (v) sustainability risks, institutional and reputational relations risks. The integrated risk map was also revised to include two new categories: Sustainability, Reputation and People. For further information, see item 5 of this Reference Form.

In July 2020, the Company's Board of Directors established a Compliance Board headed by a Chief Compliance Officer ("CCO"), who reports directly to the Board of Directors and is supervised by the Audit Committee. This structure ensures that the CCO has autonomy and is isolated from our other executive structures. The CCO is responsible for supervising Corporate Integrity, Internal Audit and also the Whistleblowing Channel, the latter two areas of which act as the Company's third line of defense.

Expiration of the Shareholders' Agreement. In November 2020, the Shareholders' Agreement between Litela Participações S.A., Litel Participações S.A., Bradespar S.A. Mitsui & Co., Ltd. and BNDES Participações S.A. expired. Consequently, these shareholders are no longer required to vote jointly on matters that were previously covered by the agreement.

Maximize flight-to-quality in iron ore.

In the iron ore business, Vale is committed to delivering the highest possible margins in the current market environment, managing the extensive supply chain and flexible product portfolio to deal with production restrictions in the short term. Vale is focusing its product line to capture industry trends, improving quality and productivity, controlling costs, strengthening its logistics infrastructure of railways, ports and distribution centers, committed to a safe, green and efficient transportation portfolio, and improving the relationship with customers.

- Vale will continue to promote Brazilian Blend Fines ("BRBF"), a standard product with content of silica (SiO₂) limited to 5% and low alumina content (1.5%), offering a strong performance in any type of sintering operation. Vale produces BRBF by mixing fines from the Carajás ores and the South and Southeast ores, which are complementary ores for the blending strategy. The BRBF is produced at the Teluk Rubiah Maritime Terminal in Malaysia and at seventeen ports in China. This process reduces the time needed to reach Asian markets and increases the distribution capillarity by allowing the use of smaller vessels. The blending strategy also allows the use of iron ore with lower concentration of iron from the South and Southeastern Systems, allowing more efficient mining plans and greater use of dry processing methods, which, in turn, reduce investments, extend life usefulness of Vale's mines, and reduce the use of water in its operations: a fundamental flexibility to deal with short-term challenges.
- Vale continues to improve its portfolio in order to offer solutions to its customers and adapt to potential market demands. In 2019, the launch of GF88 was announced, a new product to supply the growing pellet production market in China. This product is composed of Carajás fines (IOCJ), obtained through grinding, opening a new

market for a high quality portfolio. The Company is currently working on the development of low CO2 iron manufacture technologies and services, to support its customers as they transition to the low CO2 steel industry.

- Vale's goal is to reach a production run-rate capacity of 400 Mtpy by the end of 2022. In the Northern System, the Company's plan is to have high quality growth with new low-cost assets, accelerating and opening new mining fronts to reach the 230 Mtpy capacity goal. In the Southeastern System, the Company is investing in increasing its pellet production, developing filtration and dry stacking capacity, and recovering approximately 40 Mtpy of its capacity. Finally, in the Southern System, Vale is committed to solving the interference of upstream dams in its operations, recovering approximately 14 Mtpy of its capacity.
- One of the Company's main objectives is to increase its flexibility by creating capacity buffers in its iron ore operations. Currently, the Company expects to reach more than 50 Mtpy of capacity buffers in the long term, expanding the Northern System by opening new caves and obtaining new licenses, in the Northern System 240 Mtpy and Serra Sul 120 projects, and opening the N3 mine front in Serra Norte, the Capanema project of 14 Mtpy of capacity in the Southeastern System, and unlocking of capacity in its Vargem Grande complex.
- With continued investments in the disposal of dry-stacked tailings, and the planned increase in the share of production by dry processing from 40% in 2014 of total production to a target of 70% by 2024, the dependence on new dams and raising of dams should decrease. Due to the tailings disposal restrictions and lower iron ore production in the Southern and Southeastern Systems since the Brumadinho dam breach, the Company temporarily reached 73% of dry processing production in 2020. The additional volumes to reach the 400 Mtpy production level shall come from the dry or wet processing method, using the dry stacking method. To treat wet processing tailings, the Company is investing in tailings filtration systems to allow it to operate some of its mines and plants without using tailings dams. The Company announced an estimated investment of USD 2.4 billion between 2020 and 2024 in some sites, including the Vargem Grande complex, the Itabira and Brucutu complex, to be operated with tailings filtration systems and tailings disposal using the dry stacking method, which consists of filtering and stacking partially or fully dehydrated tailings, reducing dependence on tailings dams. In 2020, USD 195 million was invested in tailings filtration systems and dry tailings stacking. In March 2021, the tailings filtration plant of the Vargem Grande Complex started to operate gradually, the first of four filtration plants to be installed in Vale's operations in Minas Gerais. In line with this purpose, New Steel was acquired in January 2019, bringing innovative technologies for dry iron ore processing, and an investment of USD 125 million was approved in the first dry magnetic fine concentration plant in the world on an industrial scale to produce 1.5 Mtpy, starting in 2022 at the Vargem Grande complex.

Base metal transformation

Nickel. A fundamental aspect of the Company's nickel business strategy is to be a leader in the supply of nickel for a renewable energy transition, and to go further, improving the sustainable way of operating. The Company will keep its focus on completing the business recovery, continuing to review its use of assets, optimizing its operations and concentrating efforts to increase productivity and improve returns, preserving the capacity for growth. Vale is one of the largest nickel producers in the world, with large-scale operations, long life and low cost, a substantial resource base and diversified mining operations, which

produce nickel products from nickel sulphide and laterite sources, using advanced technology. The commercial presence is global, with a focus on serving customers directly.

Nickel products meet the needs of customers in different sectors, including those with high-purity nickel needs and manufacturers of electric vehicle batteries. Most of the production that will be used in these industries comes from Canadian operations, which benefit from the use of renewable energy and are located in a stable jurisdiction with strong ESG standards. The Company's main product, Class 1 nickel, puts it in a unique position with environmentally friendly operations in the North Atlantic, in line with the low-carbon agenda. At the end of 2021, operations will begin on two replacement projects in Canada: the Voisey's Bay and Copper Cliff Mine 1 extensions. Both projects have a high nickel content and also a significant amount of by-products. The Company also has opportunities to expand its operations in Onça Puma in Brazil, and the option to participate, through joint ventures, in the Pomalaa and Bahodopi projects in Indonesia.

Copper. The Company has significant opportunities to expand its copper business in an organic manner. The Company has a strong portfolio of copper assets and plans to develop a multi-year copper expansion plan, with Salobo III, Alemão and Cristalino being competitive projects that will support the strategy of having a production capacity of around 500 thousand tons per year. In addition to these projects, the Company has other opportunities to grow in the future, taking advantage of the knowledge and logistics already existing in the Carajás region, while evaluating opportunities to increase copper production in Canada. It is also involved in the exploration of copper greenfields in some of the most prolific belts in the world, looking for world-class assets for future development. The copper business still has the potential to expand, through partnerships through the Hu'u project, a world-class deposit located in Indonesia.

Discipline in the allocation of capital

Vale reaffirms its strong commitment to a solid balance sheet and the creation of value for its stakeholders.

In September 2020, Vale fully repaid the outstanding balance of USD 5 billion in its revolving credit lines, which were withdrawn in March 2020, to guarantee capital financing in light of the high risks posed by the COVID-19 pandemic. The Company continues its deleveraging process and reached a net cash level of USD 898 million as of December 31, 2020.

The Company also considers other liabilities in determining the appropriate capital structure for Vale, such as the mark-to-market of derivatives, leasing obligations in accordance with IFRS 16, the REFIS tax refinancing program, and provisions to fulfill obligations to the RENOVA Foundation and the reparation of Brumadinho.

As part of its commitment to achieve a leaner portfolio, Vale continues the asset portfolio optimization. Thus, in December 2020, Vale entered into a binding option agreement for the sale of its stake in Vale Nouvelle-Calédonie S.A.S. (VNC), and in January 2021 it entered into an agreement with Mitsui to structure Mitsui's divestment of the Moatize mine and Nacala Logistics Corridor, as a first step towards divestment of the coal business.

In July 2020, the Board of Directors of the Company reinstated the Shareholders' Compensation Policy, suspended in January 2019. The continuation of the dividend payment policy aims to return to shareholders a relevant portion of cash generation, in a predictable pattern and in line with the strategic pillar "Discipline in Capital Allocation". For further information, see items 3.4 and 3.5 of this Reference Form.

8. Extraordinary Business

8.1 - Acquisition or disposal of any relevant asset that does not classify as normal operation in the business of the issuer

There has been no acquisition or disposal of any relevant asset that does not qualify as a normal operation in the Company's business in the last 3 fiscal years.

8.2 - Significant changes to the manner in which the issuer's business is conducted

On January 25, 2019, Dam I of the Córrego do Feijão Mine, which is part of Paraopebas Complex in the Southern System, located in Brumadinho, Minas Gerais, Brazil, collapsed. For further information, see items 7.9 and 10.3 of this Reference Form.

Except for the foregoing, there has been no significant change to the manner in which the Company business was conducted in the last 3 fiscal years. See item 8.4 of this Reference Form for more information.

8.3 - Relevant agreements entered into by the issuer and its subsidiaries not directly related to its operating activities

There have been no significant agreements entered into by the Company and/or its subsidiaries with third parties not directly related to their operating activities in the last 3 fiscal years.

8.4 - Other relevant information

In February 2021, Vale signed a global agreement with several public authorities for the reparation and remediation of socio-environmental and socio-economic damages resulting from the Brumadinho dam breach. For information on said Global Agreement, see item 4.7 of this Reference Form.

In 2020, the outbreak of Coronavirus Disease 2019 (COVID-19) spread all over the world. In view of this fact, the Company has taken steps and implemented policies to protect its employees, businesses and communities around its operations against threats posed by the COVID-19 pandemic. For further information on the potential impacts of COVID-19 on the Company, see items 7.9 and 10.3 (c) of this Reference Form.

9. Relevant assets

9.1 Relevant non-current assets

The main assets of the Company's non-current assets are described in items 9.1(a), 9.1(b) and 9.1(c) of this Reference Form.

With regard to the Company's fixed assets, the main assets consist of several properties, facilities, equipment and mining rights, as described in item 9.1 (a) of this Reference Form.

The following tables describe the book value of the Company's fixed assets as of December 31, 2020, by category and geographic location.

On December 31, 2020

(In R\$ thousands)	Brazil	Canada	New Caledonia	Asia	Others	Total
Building and Land	31,104	7,472	-	5,845	225	44,646
Facilities and equipment	43,965	10,071	-	7,336	3,713	65,085
Mining properties	9,524	26,516	-	4,561	1,252	41,853
Others ⁽¹⁾	22,244	5,202	-	493	6,258	34,197
Assets under construction	14,579	12,052	-	988	436	28,055
Total	121,416	61,313	-	19,223	11,884	213,836

⁽¹⁾ Railway equipment, right-of-use assets and others.

9.1 - Relevant non-current assets / 9.1.a - Fixed Assets

Fixed Assets Description	Location Country	State Location (Federation Unit)	County Location	Type of property
Integrated system for iron ore production from the Northern System	Brazil	DI	Various	N/A
Integrated system for iron ore production from the Southeast System	Brazil	DI	Various	N/A
Integrated system for iron ore production from the Southern System	Brazil	DI	Various	N/A
Tubarão I Pelletizing Plant	Brazil	ES	Vitória	Own
Tubarão II Pelletizing Plant	Brazil	ES	Vitória	Own
Tubarão III Pelletizing Plant	Brazil	ES	Vitória	Leased
Tubarão IV Pelletizing Plant	Brazil	ES	Vitória	Leased
Tubarão V Pelletizing Plant	Brazil	ES	Vitória	Leased
Tubarão VI Pelletizing Plant	Brazil	ES	Vitória	Leased
Tubarão VII Pelletizing Plant	Brazil	ES	Vitória	Leased
Tubarão VIII Pelletizing Plant	Brazil	ES	Vitória	Own
São Luis Pelletizing Plant	Brazil	MA	São Luis	Own
Factory Pelletizing Plant	Brazil	MG	Congonhas	Own
Vargem Grande Pelletizing Plant	Brazil	MG	Nova Lima	Own
Integrated nickel production system: mine, processing plant, smelter	Canada		Sudbury	N/A
Integrated nickel production system: mine, processing plant, smelter	Canada		Thompson	N/A
Mine and nickel processing plant	Canada		Voisey's Bay	N/A
Manganese mines	Brazil	DI	Various	N/A
Iron Mines - various Central West System				
Iron Mines - various Central West System	Brazil	MS	Various	N/A
Sohar Port and Pelletizing Plant (See item 9.2)	Oman			N/A
Malaysian Ore Distribution Center (See item 9.2)	Malaysia			Own
Oman Pelletizing Plant	Oman			Own
Mine and nickel processing plant	New Caledonia		Noumea	N/A
PTVI Nickel Mine	Indonesia		Sorowako	N/A
Clydach Nickel Refinery	Wales		Clydach	Own
Sossego Mine	Brazil	PA	Various	N/A
Salobo Mine	Brazil	PA	Various	N/A
Onça Puma Mine	Brazil	PA	Various	N/A
Moatize thermal and metallurgical coal mine	Mozambique		Various	N/A
Port Colborne precious metals smelter (See item 9.2)				
Port Colborne precious metals smelter (See item 9.2)	Canada			Own
Iron alloy plant	Brazil	DI	Various	Own
Platinum Refinery	Great Britain (United Kingdom, UK)		Acton	Own

Taiwan Nickel Refinery	Taiwan	Kaoshing	Own
Matsuzaka Nickel Refinery	Japan	Matsuzaka	Own
Dalian Nickel Refinery	China	Dalian	Own

9.1 - Relevant non-current assets / 9.1.b - Intangible assets, such as patents, trademarks, licenses, concessions, franchises and technology transfer and domain names in the global computer network contracts

Type of asset	Asset Description	Duration	Events that may cause the loss of rights	Consequence of loss of rights
Concessions	Mining concessions in Brazil	Indefinite	Non-compliance with the Mineral Legislation in force and in a persistent manner: carrying out predatory mining, disabled mines without the communication and authorization from the competent body, not fulfilling repeated requests for routine inspections, mining in disagreement with the pre-established Economic Development Plan.	Interruption and/or cancellation of mining operations in Brazil.
Concessions	Canada mining Licenses and leases	2021-2041	Non-payment of mining tax or rental fees, failure to comply with legislation, non-application for renewal, refusal of the application for renewal, non-fulfillment of renewal requirements.	Interruption and/or cancellation of mining and/or mineral exploration in Canada.
Concessions	Contract of work in Indonesia	2025	End of the contract period, annulment resulting from an illegality or irregularity found in the procedure or in the act of granting it and in case of bankruptcy or extinction of the Concessionaire. Noncompliance with legislation. The Contract of Work for Vale's mines in Indonesia expires in 2025. However, according to the Mining Law, Vale may request at least two 10-year extensions as a special business license.	Interruption and/or the cancellation of mining operations in Indonesia.
Concessions	Mining concessions in New Caledonia	2022-2051	Non-payment of fees, non-payment of lease/royalties, non-submission of activity report, lack of activity in concessions and no statement of appeal indicated. Noncompliance with legislation. VNC has requested renewal of the concessions scheduled to expire before 2019. Vale may continue to operate while the approval process is in progress.	Interruption and/or cancellation of mining operations in New Caledonia, impossibility of amassing mineral resources that allow our mining activities to be expanded outside the VNC project area.
Concessions	Mining concession in Mozambique	2032	In the country, the chances of losing the mining concession are mainly related to (i) the abandonment of the mine, (ii) the execution of mining activities under health and safety conditions that are incompatible with the requirements of local legislation, (iii) non-payment of mineral production taxes and other taxes due as a result of developing mining activity; and (iv) the bankruptcy of the company. Lack of demarcation of the area, non-payment of specific taxes, non-submission of work reports and not carrying out the work according to the mining plan. The concession is entitled to 25-year extensions, subject to approval by the Government of Mozambique.	Interruption and/or cancellation of mining operations in Mozambique.

Concessions	Exploration and Development of Public Services, see item 18.12 of this Reference Form	11/28/2026	<p>As provided in the concession agreement in its fifteenth clause, the concession will be extinguished with the realization of any of the following hypotheses: (i) termination of the contractual term; (ii) takeover; (iii) expiry; (iv) termination; (v) annulment; (vi) bankruptcy or extinction of MRS. Said clause details each of the chances of extinction and in any of them, the grantor shall stipulate the procedures and means for undertaking the provision of the service without interruption of its continuity. In the event of termination of the concession agreement, the assets declared reversible will be indemnified by the grantor for the residual value of their cost, after deducting depreciation and any accruals resulting from revaluation, being such cost subject to evaluation by the grantor. In addition, of the amount of indemnity due, the grantor will retain all amounts owed by the Company to the Union, States, Federal District, Counties and RFFSA, in any capacity.</p> <p>In 2016, MRS, as well as other railroad concessionaires in Brazil, started discussions with the National Land Transportation Agency (<i>Agência Nacional de Transportes Terrestres</i> - "ANTT") about the <u>possibility of renewing their current concession agreements in advance</u>, for another 30 years. The approval of such process depends on the formal analysis of the technical and economic conditions by the Federal Government (Ministry of Infrastructure and Regulatory Agency - ANTT) and the Federal Court of Accounts (TCU).</p>	<p>The consequence of ceasing to be entitled to operate the rail freight transportation service in the Southeast railway would be the interruption of its operations.</p> <p>The extinction of the concession agreement results in the loss of MRS's right to exclusively explore the public rail freight transportation service at the Southeast Grid. In this scenario, Vale, as a railroad user, would have to negotiate the transportation of the production from the Southern System with the possible new concessionaire of the railroad network.</p>
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Concessions	Concession for the operation of EFVM's cargo and passenger rail transport services	7/1/2057	<p>The concession shall be extinguished upon completion of one of the following events: end of the contractual period, takeover, expiry, annulment, bankruptcy or extinction the Concessionaire.</p> <p>Additional information to the "Duration" field: 2057.</p> <p>After discussions initiated in 2016, Vale and the National Land Transport Agency ("ANTT") signed, on December 18th, 2020, the 3rd Amendment to the EFC Concession Agreement to extend, for another 30 years, the term of the concession.</p>	The termination of the concession agreement results in the loss of Vale's right to exclusively explore the public rail freight transportation service at the EFC, which will represent the loss of the integrated mine-railroad-port model in the Northern System. In this case, there would be the need to hire transportation or capacity with the new railroad concessionaire.
Concessions	Concession for the operation of EFVM's cargo and passenger rail transport services	7/1/2057	<p>The concession shall be extinguished upon completion of one of the following events: end of the contractual period, takeover, expiry, annulment, bankruptcy or extinction the Concessionaire.</p> <p>Additional information to the "Duration" field: 2057</p> <p>After discussions initiated in 2016, Vale and the National Land Transport Agency ("ANTT") signed, on December 18th, 2020, the 3rd Amendment to the EFVM Concession Agreement to extend, for another 30 years, the term of the concession.</p>	The termination of the concession agreement results in the loss of Vale's right to exclusively explore the public rail freight transportation service at the EFVM, which will represent the loss of the integrated mine-railroad-port model in the Southeast System. In such case, there would be the need to hire transportation or capacity with the new railroad concessionaire.
Concessions	The Central-Eastern grid concession, belonging to the extinct Rede Ferroviária Federal S.A., granted to FCA	08/28/2026	As provided in the concession agreement, the concession will be extinguished with the realization of any of the following hypotheses: (i) termination of the contractual term; (ii) takeover; (iii) expiry; (iv) termination; (v) annulment; (vi) bankruptcy or extinction of FCA. In such cases, the grantor shall stipulate the procedures and means for the assumption of service provision without breaking its continuity. In the event of extinction of the concession, the assets declared reversible will be indemnified by the grantor for the residual value of its cost, after deducting the depreciation and any increase resulting from a revaluation, being such cost subject to evaluation by the	The termination of the concession contract results in the loss of FCA's right to exclusively explore the public rail freight service in the Central-East Network.

			<p>grantor. In addition, of the amount of indemnity owed, the grantor will retain all amounts owed by the Company to the Union, States, Federal District, Counties and RFFSA, in any capacity.</p> <p>In 2016, FCA, as well as other railroad concessionaires in Brazil, started discussions with the National Land Transportation Agency (Agência Nacional de Transportes Terrestres - "ANTT") about the possibility of renewing their current concession agreements in advance, for another 30 years. The approval of such process depends on the formal analysis of the technical and economic conditions by the Federal Government (Ministry of Infrastructure and Regulatory Agency - ANTT) and the Federal Court of Accounts (TCU).</p>	
Concessions	Subconcession Contract with the lease of the railway network of Ferrovia Norte Sul	12/20/2037	<p>The subconcession shall be extinguished upon completion of one of the following events: end of the contractual period, takeover, forfeiture, termination, annulment, bankruptcy or extinction of the Subconcessionaire.</p> <p>Additional information on the "Duration" field: 2037 (extendable for 30 years)</p>	The termination of the concession contract results in the loss of FNS' right to exclusively explore the public service of rail freight transport on the North Section of the North and South Railway.
Concession	Management of the Northern Railway, General Cargo and Passenger Transport on the Northern Railway	2035	<p>As provided in the Concession Agreement, in its eighteenth clause, regarding the termination of the contract: End. The contract may only be terminated by the granting authority or by the company in the following cases: (i) termination of the contractual term; (ii) waiver by CDN, that can only occur after five years from the date of taking office which was on January 10th, 2005, and must be made in writing at least 6 months in advance; (iii) force majeure; (iv) termination for noncompliance with the CDN, noncompliance that is not rectified by CDN within the term required in the contract, will give rise to the right on the part of the granting authority to terminate the contract; (v) termination for noncompliance with the granting authority; (vi) termination of the contract in case of unforeseeable alteration of circumstances. For more information, see item 9.2 of this Form.</p>	Loss of the right to operate the railroad transport service/loss of the concession.

Concession	Exclusive concession in the Port Terminal of Nacala-a-Velha, see item 18.12 of this document.	2042	The Concession Agreement may terminate by: (i) agreement between the parties, (ii) expiration of the concession period and its renewals, (iii) redemption by the granting authority, (iv) revocation determined by the granting authority, at the request of the concessionaire in case of extraordinary event or case of force majeure or in case of political and legislative risk and conflicts of interest of an institutional nature that make it impossible to fulfill its obligations under the terms of this concession agreement.	Extinction/Loss of rights and transfer to the granting authority of any and all of its rights, title and interest in respect of the concession, including the Concession's assets, and as the case may be, the Concessionaire's assets.
Concession	Moatize-Malawi railroad concession and part of the Nacala-Velha railroad branch	2042	The Concession Agreement may terminate by: (i) agreement between the parties, (ii) expiration of the concession period and its renewals, (iii) redemption by the granting authority, (iv) revocation determined by the granting authority, at the request of the concessionaire in the event of an extraordinary event or a case of force majeure or in the event of political and legislative risk and conflicts of interest of an institutional nature that make it impossible to fulfill its obligations under the terms of this concession contract.	Extinction/Loss of rights and transfer to the granting authority of any and all of its rights, titles and interest in respect of the concession, including the assets of the Concession, and as the case may be, the Concessionaire's assets.
Concessions	Concession for the Use of Public Goods (Rio Doce) of potential for hydroelectric power generation - Candonga HPP	2035	(i) The end of the final period of the agreement; (ii) takeover; (iii) expiry; (iv) termination; (v) annulment arising from an illegality or irregularity found in the procedure or in the act of granting it; and (vi) bankruptcy or extinction of the Concessionaire.	Interruption and/or cancellation of the supply of own electricity generation.
Concessions	Concession for the Use of Public Goods (Rio Tocantins) of potential for hydroelectric power generation - Estreito HPP	2037	(i) The end of the final period of the agreement; (ii) takeover; (iii) expiry; (iv) termination; (v) annulment arising from an illegality or irregularity found in the procedure or in the act of granting it; and (vi) bankruptcy or extinction of the Concessionaire.	Interruption and/or cancellation of the supply of own electricity generation.
Concessions	Concession to use hydroelectric power - SHPP (Small Hydro Power Plant) Glória	2032	(i) Reversal of assets, after the agreement period has ended; (ii) takeover; (iii) expiry.	Interruption and/or cancellation of the supply of own electricity generation.
Concessions	Concession to use hydroelectric power - SHPP (Small Hydro	2021	End of the concession term	Interruption and/or cancellation of the supply of own electricity generation.

	Power Plant) Nova Maurício			
Concessions	Concession to use hydroelectric power - SHPP (Small Hydro Power Plant) Glória	2021	End of the concession term	Interruption and/or cancellation of the supply of own electricity generation.
Concessions	Concession to use hydraulic energy - SHPP (Small Hydro Power Plant) Mello	2025	End of the concession term	Interruption and/or cancellation of the supply of own electricity generation.
Trademarks	Registration of Trademark "Vale" (word) No. 829354905, class 37	10/26/2030	<p>From an administrative perspective (INPI), trademark registrations already granted may be challenged by invalidity proceedings, or may be subject to partial or total lapse of time, in case the trademark is not being used in the manner for which registration was granted. Judicially, third parties may request the records to be nulled, alleging infringement of their intellectual property rights. The maintenance of trademark registrations is carried out through the periodic payment of retributions to the INPI. The payment of the fees and the continued use of the trademarks is essential to avoid the extinction of the registrations and the consequent termination of rights of the owner.</p> <p>Additional information to the "Duration" field: 10/26/2030 (extendable for 10 years)</p>	The loss of trademark rights implies the impossibility of preventing third parties from using identical or similar trademarks to stress, even, competing services or products, once the owner no longer holds the right to exclusively use them. There is, also, the possibility that the titleholder may be subject to lawsuits in the criminal and civil spheres for improper use in the event of violation of the rights of third parties, which may result in the impossibility of using the trademarks in the conduct of his activities. It is not possible to quantify the impact of these hypotheses.
Licenses/Domain name on the World Wide Web	Domain name on the World Wide Web: Vale.com.br	09/16/2027	The loss of rights related to such assets is related to: (i) non-payment of the domain maintenance; (ii) verification, at the time of registration or later, of the use of CNPJ, CPF (<i>Brazilian tax registration for legal or physical persons, respectively</i>), company name or false, invalid, incorrect or outdated name; (iii) failure to submit the documents in a timely manner; (iv) by court order; and (v) by express request of the domain registration applicant.	There is no way to quantify the impact, being certain, however, that with the loss of the domain name, it may be registered by third parties.
Licenses/Domain name on the World Wide Web	Domain name on the World Wide Web:	10/07/2030	The loss of rights related to such assets is related to: (i) non-payment of the domain maintenance; (ii) verification, at the time of registration or later, of the use of CNPJ, CPF (<i>Brazilian tax registration for legal or physical persons, respectively</i>), company	There is no way to quantify the impact, being certain, however, that

	Vale.com		name or false, invalid, incorrect or outdated name; (iii) failure to submit the documents in a timely manner; (iv) by court order; and (v) by express request of the domain registration applicant.	with the loss of the domain name, it may be registered by third parties.
Concession	Concession Agreement for the management and operation of the railway line in Malawi	30 years, ending on 01/01/2046	The Concession Agreement will be terminated in the following circumstances, pursuant to Clause 63: (a) expiration of the term; (b) mutual termination; (c) Concessionaire's default on (i) any false or incorrect representation or warranty by the concessionaire that affects its ability to perform material obligations under the contract; (ii) voluntary filing for bankruptcy; (iii) appointment of a provisional liquidator for the liquidation of the concessionaire (iv) the execution, by a court, of a liquidation order of the Concessionaire that is not suspended or reversed within 30 days; (d) material breach by the concessionaire of any of its obligations. For more information, see item 9.2 of this Reference Form.	The consequence of the loss of the right to the management and operation of Malawi's railway would be the interruption of its operations.
Concession	Concession of the Kachasu railway line, as part of the Nacala Railway Project	30 years, ending on 01/01/2046	Pursuant to clause 32, a concession agreement will be terminated for: (a) the event of default by the Government arising from: (i) noncompliance with any obligations that have a material adverse effect on the concessionaire; (ii) false or incorrect representation or guarantee by the Government; (iii) a change in the law that makes the exercise by the concessionaire and the Government of any of its rights/obligations or illegal, void or unenforceable performance; (iv) removal of any part of the Concessionaire's Railroad; (v) the practice of any corrupt act by the Government entitles the concessionaire to terminate the agreement, or (vi) expropriation. For more information, see item 18.12 of this Reference Form.	Interruption and / or cancellation of coal transport operations from the Moatize Coal Mine in the Province of Tete to Nacala-a-Velha, Nampula, Republic of Mozambique

9.1 - Relevant non-current assets / 9.1.c - Investment in companies

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Mineração Rio do Norte S/A	04.932.216/0001-46	-	Associate	Brazil	PA	Oriximiná	40.000000
Description of the activities developed	Production and export of bauxite in Brazil.						
Fiscal Year	Book value - variation (%)	Market value - variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-6.61578	0.000000	45.00				
12/31/2019	9.16667	0.000000	0.00				
12/31/2018	8.10811	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	367,000,000.00
Reasons for acquiring and maintaining such shareholding	Participation in bauxite extraction, processing and transportation operations.						

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Tecnored Desenvolvimento Tecnológico S.A.	31.605.512/0001-05	-	Controlled	Brazil	SP	Pindamonhangaba	100.000000
Description of the activities developed	Provide sustainable low-carbon solutions for the steel industry.						
Fiscal Year	Book value - variation (%)	Market value - variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-14.03509	0.000000	0.00				

12/31/2019	50.00000	0.000000	0.00
12/31/2018	68.88889	0.000000	0.00

Date	Value (R\$)	Date	Value (R\$)
12/31/2020	-	12/31/2020	98,000,000.00

Reasons for acquiring and maintaining such shareholding

The investment in the Society aims at the development and commercial exploitation of innovative technological processes in the areas of metallurgy, mining and the processing industry. Tecnoed holds all rights in self-reduction technology in pig iron production, called "Tecnoed", which is in testing phase of proof of the technology.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Companhia Portuária da Baía de Sepetiba	72.372.998/0001-66	-	Controlled	Brazil	RJ	Rio de Janeiro	100.000000

Description of the activities developed

The construction and operation of a mixed private use port facility, located within the Sepetiba Port area in Rio de Janeiro State, specialized in the handling and storage of iron ore and its derivatives. In a subsidiary and supplementary manner, the company may carry out port operations with other types of solid bulk, provided that such subsidiary operations do not affect the main operations. The company is forbidden to carry out any acts that are outside the scope of its object, except with express authorization of Companhia Docas do Rio de Janeiro – CDRJ.

Fiscal Year	Book value - variation (%)	Market value - variation (%)	Amount of dividends received (BRL)	Market Value	Book Value
12/31/2020	32.88288	0.000000	81.000.000.00		
12/31/2019	-19.56522	0.000000	0.00		
12/31/2018	3.37079	0.000000	143.000.000.00		

Date	Value (R\$)	Date	Value (R\$)
12/31/2020	-	12/31/2020	295,000,000.00

Reasons for acquiring and maintaining such shareholding

Provision of port services for iron ore operations.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Ferrous Resources Limited	08.842.953/0001-09	-	Controlled	Isle of Man	-	-	100.000000

Description of the activities developed

The supply of iron ore through the acquisition of mineral resources and development of ore processing plants.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-100.00000	0.000000	0.00				
12/31/2019	100.00000	0.000000	0.00				
12/31/2018	0.00000	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	0.00

Reasons for acquiring and maintaining such shareholding

Access to additional reserves of iron ore.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
New Steel Global	29.875.537/0001-87	-	Controlled	The Netherlands	-	-	100.000000

Description of the activities developed

The installation and operation of industrial ore processing plants, as well as the provision of consulting services for mining.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	0.05362	0.000000	0.00				
12/31/2019	100.00000	0.000000	0.00				
12/31/2018	0.00000	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	1,866,000,000.00

Reasons for acquiring and maintaining such shareholding

The development of processing technologies for the processing of iron ore.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Salobo Metais S.A.	33.931.478/0001-94	-	Controlled	Brazil	RJ	Rio de Janeiro	100.000000

Description of the activities developed

Use of mineral deposits in the national territory, and in particular the Salobo deposit, located in Serra dos Carajás, district and municipality of Marabá, Pará State, subject of Mining Ordinance No. 1121, of 7/14/87, comprising the mining, processing, smelting, refining, transportation and sale of copper, gold and its by-products.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value	Book Value
12/31/2020	15.83876	0.000000	1,562,000,000.00		
12/31/2019	4.63793	0.000000	1,718,000,000.00		
12/31/2018	12.38595	0.000000	1,094,000,000.00		
				Date	Value (R\$)
				12/31/2020	-
				Date	Value (R\$)
				12/31/2020	12,989,000,000.00

Reasons for acquiring and maintaining such shareholding

Conducting operations at the copper deposit in Salobo, Brazil.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale Holdings B.V.	00.000.000/0000-00	-	Controlled	Holland	-	-	100.000000

Description of the activities developed

Acquisition and management of shares and interests in companies/associations of any kind and investments in assets; control and management of one or more activities that are related to any of the companies in which it holds an interest or has invested in its assets; exercise of any and all activities needed or useful so that the aforementioned objectives can be achieved.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value	Book Value
12/31/2020	2.62251	0.000000	0.00		
12/31/2019	100.00000	0.000000	0.00		
12/31/2018	0.00000	0.000000	0.00		
				Date	Value (R\$)
				Date	Value (R\$)

12/31/2020 - 12/31/2020 10,772,000,000.00

Reasons for acquiring and maintaining such shareholding Holding company and owner of the mineral exploration company worldwide.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale Canada Limited	22.252.122/0001-08	-	Controlled	Canada	-	Toronto	100.000000

Description of the activities developed Vale Canada Limited is a leading producer of nickel and specialty nickel products with added value. In addition, they also produce copper and other byproducts, such as precious metals, platinum group metals, cobalt, sulfuric acid, and liquid sulfur dioxide.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value	Book Value
12/31/2020	1.30829	0.000000	0.00		
12/31/2019	-44.54097	0.000000	0.00		
12/31/2018	18.30657	0.000000	0.00		
				Date	Value (R\$)
				12/31/2020	-
				Date	Value (R\$)
				12/31/2020	11,383,000,000.00

Reasons for acquiring and maintaining such shareholding Run nickel and by-product operations (copper, cobalt, platinum group metals and other precious metals) in Canada, the United Kingdom and Indonesia.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale International SA	05.542.296/0001-96	-	Controlled	Switzerland	-	-	100.000000

Description of the activities developed Acquiring, holding, managing and selling direct or indirect interests in companies or firms, mainly abroad; trading and distributing the products of group companies, develop customer relationships and providing technical assistance, including product development and production planning, to customers and group companies worldwide; carrying out research and development activities in the mining, logistics and energy sectors; financing companies and group firms and providing commercial, financial, administrative and legal services to other group companies and firms in Switzerland and abroad. The company may carry out any activities related to its object, or favor it, namely managing and defining property rights and/or patents license, trademarks of any kind, know-how and any other intellectual property rights, buy, hold and sell real estate.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	46.29581	0.000000	0.00				
12/31/2019	8.90379	0.000000	0.00				
12/31/2018	59.28628	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	105,036,000,000.00

Reasons for acquiring and maintaining such shareholding

Carrying out financial transactions and commercial activities.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale Malaysia Minerals Sdn. Bhd.	00.000.000/0000-00	-	Controlled	Malaysia			100.000000

Description of the activities developed

The purpose of Vale Malaysia Minerals is to conduct port and maritime terminal operations in Malaysia.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	31.99416	0.000000	0.00				
12/31/2019	5.10557	0.000000	0.00				
12/31/2018	22.79048	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	7,228,000,000.00

Reasons for acquiring and maintaining such shareholding

Conducting port and maritime terminal operations.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale Manganês S.A.	15.144.306/0001-99	-	Controlled	Brazil	BA	Simões Filho	100,000000

Description of the activities developed

The steel industry, metallurgy, industry and sale of ferroalloys; the exploration, on its own account, or in association with other companies, of mineral deposits, including research, mining, processing, transportation, trade, import and export of mineral substances; reforestation; the extraction, production, trade, import and export of wood and charcoal and other goods of mineral or vegetable origin that may be used in their production processes, their derivatives and their byproducts; trade in import and export of goods related or needed for its activities, including equipment, supplies and various materials; any other related activities that do not conflict with its object or with the legislation in force.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-50.66274	0.000000	0.00				
12/31/2019	-4.50070	0.000000	0.00				
12/31/2018	4.71281	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	335.000.000,00

Reasons for acquiring and maintaining such shareholding

Conducting ferroalloy and manganese operations in Brazil.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Vale Shipping Holding Pte. Ltd.	00.000.000/0000-00	-	Controlled	Singapore	-	-	100.000000

Description of the activities developed

The main activities are related to the ownership, chartering and operation of vessels.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	28.37924	0.000000	0.00				
12/31/2019	5.75881	0.000000	0.00				
12/31/2018	-84.18684	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	2,004,000,000.00

Reasons for acquiring and maintaining such shareholding

Management of operations with vessels and logistical support.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Aliança Geração de Energia S.A.	12.009.135/0001-05	-	Associate	Brazil	MG	Belo Horizonte	55.000000

Description of the activities developed

Study, planning, construction and exploration of electricity generation and marketing systems, with a view to economic and commercial exploitation; provision of technical and advisory services, in the area of operation, to companies in Brazil and abroad; and participation in other electric power generation companies or projects.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	0.79197	0.000000	126,000,000.00				
12/31/2019	0.63762	0.000000	111,000,000.00				
12/31/2018	-0.37057	0.000000	88,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	1,909,000,000.00

Reasons for acquiring and maintaining such shareholding

Supply of a significant volume of self-produced energy to Vale in Brazil through long-term supply agreements and an energy investment vehicle to meet Vale's growing demand for renewable electricity.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Aliança Norte Energia Participações S.A.	11.995.335/0001-03	-	Associate	Brazil	MG	Belo Horizonte	51.000000

Description of the activities developed

Generation, transmission, distribution and sale of electric power, and participation in other companies or consortia, including involving hydroelectric power projects.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	

12/31/2020	-6.19195	0.000000	0.00
12/31/2019	2.86624	0.000000	0.00
12/31/2018	18.71456	0.000000	0.00

Date	Value (R\$)	Date	Value (R\$)
12/31/2020	-	12/31/2020	606,000,000.00

Reasons for acquiring and maintaining such shareholding

Vale's indirect interest in Belo Monte Hydroelectric Power Plant, one of the main energy suppliers to Vale in Brazil through a long-term supply agreement.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
California Steel Industries, Inc.	00.000.000/0000-00	-	Associate	United States	-	-	50.000000

Description of the activities developed

Steel processing and finishing activity.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value	Book Value
12/31/2020	24.92308	0.000000	0.00		
12/31/2019	1.77453	0.000000	117,000,000.00		
12/31/2018	44.49472	0.000000	114,000,000.00		

Date	Value (R\$)	Date	Value (R\$)
12/31/2020	-	12/31/2020	1,218,000,000.00

Reasons for acquiring and maintaining such shareholding

Carry out re-rolling operations in the USA.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
CSP - Companhia Siderúrgica do Pecém	09.509.535/0001-67	-	Associate	Brazil	RJ	Rio de Janeiro	50.000000

Description of the activities developed

The Company aims to develop an integrated steel complex in the State of Ceará, consisting of a steel plant dedicated to the production and export of steel plates.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	0.00000	0.000000	0.00				
12/31/2019	0.00000	0.000000	0.00				
12/31/2018	0.00000	0.000000	0.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	0.00

Reasons for acquiring and maintaining such shareholding

Investment made to increase Vale's interest in the iron ore market in the Atlantic.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Companhia Coreano-Brasileira de Pelotização – Kobrasco	33.931.494/0001-87	-	Associate	Brazil	ES	Vitória	50.000000

Description of the activities developed

Production and sale of iron ore pellets, as well as performing other activities directly or indirectly related to its object, including import, export and the provision of services of any nature, and may also hold an interest, under any type, in other companies.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-29.66102	0.000000	178,000,000.00				
12/31/2019	-12.37624	0.000000	253,000,000.00				
12/31/2018	36.94915	0.000000	121,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	249,000,000.00

Reasons for acquiring and maintaining such shareholding

Production and sale of iron ore pellets and the execution of any activities, directly or indirectly, related to the production and sale of iron ore pellets. The Company may also hold an interest in other industrial and/or commercial activities related to its main purpose, as well as hold an interest, in whichever manner, in other ventures in Brazil.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Companhia Hispano-Brasileira de Pelotização – Hispanobrás	27.240.092/0001-33	-	Associate	Brazil	ES	Vitória	50.890000

Description of the activities developed

Production and sale of iron ore pellets and execution of any activities, directly or indirectly, related to the production and sale of iron ore pellets. The Company may also hold an interest, in whichever manner, in other industrial and/or commercial activities related to its main purpose, as well as hold an interest in other ventures in Brazil.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-21.47887	0.000000	144.000.000.00				
12/31/2019	-12.07430	0.000000	200.000.000.00				
12/31/2018	19.62963	0.000000	86.000.000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	223,000,000.00

Reasons for acquiring and maintaining such shareholding

Expansion of Vale's participation in the Brazilian pellet market.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Companhia Ítalo-Brasileira de Pelotização – Itabasco	27.063.874/0001-44	-	Associate	Brazil	ES	Vitória	50.900000

Description of the activities developed

Production and sale of iron ore pellets and the execution of any activities, directly or indirectly, related to the production and sale of iron ore pellets. The Company may also hold an interest in other industrial and/or commercial activities related to its main purpose, as well as hold an interest, in whichever manner, in other ventures in Brazil.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-12.97710	0.000000	119,000,000.00				
12/31/2019	-16.02564	0.000000	219,000,000.00				
12/31/2018	18.63118	0.000000	122,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	228,000,000.00

Reasons for acquiring and maintaining such shareholding

Expansion of Vale's participation in the Brazilian pellet market.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Companhia Nipo-Brasileira de Pelotização – Nibrasco	27.251.842/0001-72	-	Associate	Brazil	ES	Vitória	51.000000

Description of the activities developed

Production and sale of iron ore pellets, as well as the execution of any other activities, directly or indirectly related to the production and sale of iron ore pellets. The company may also focus on other industrial and/or commercial activities related to its main activity and hold an interest, in whichever manner, in other ventures in Brazil.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	3.63636	0.000000	164,000,000.00				
12/31/2019	5.21739	0.000000	365,000,000.00				
12/31/2018	26.93157	0.000000	255,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	627,000,000.00

Reasons for acquiring and maintaining such shareholding

Expansion of Vale's participation in the Brazilian pellet market.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
MRS Logística S.A.	01.417.222/0001-77	1794-9	Associate	Brazil	RJ	Rio de Janeiro	48.160000

Description of the activities developed

Provide rail freight transportation services; operate loading, unloading, storage and transshipment services at stations, yards and land in the area of the railway lines subject to the concession; explore modal transport related to rail transport; to act, under the law, as a port operator, performing goods handling and storage services and operations going to or from waterway transport; participate in projects that aim to promote the socioeconomic development of the areas of influence, aiming at expanding railway services granted; and perform all activities similar or related to those previously described; and to carry out other activities based on the Company's infrastructure.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	3.50175	0.000000	115,000,000.00				
12/31/2019	4.00624	0.000000	120,000,000.00				
12/31/2018	12.33197	0.000000	106,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	2,069,000,000.00

Reasons for acquiring and maintaining such shareholding

Provision of logistics services for iron ore and pellet operations.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
VLI S.A.	12.563.794/0001-80	-	Associate	Brazil	SP	São Paulo	29.600000

Description of the activities developed

VLI SA aims to provide integrated cargo transportation services through rail and road modes, construction, conservation, maintenance, monitoring, operation and exploration of railways and / or its own or third party rail traffic, construction, operation and exploration of own or third party maritime terminals, explore, with own or third party vessels, the long-haul maritime, cabotage and fluvial commerce in cargo transportation in general, including port support navigation, exploration of activities related directly or indirectly to transportation services of cargo.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	-23.77024	0.000000	8,000,000.00				
12/31/2019	-1.38596	0.000000	37,000,000.00				
12/31/2018	3.65397	0.000000	28,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	2,495,000,000.00

Reasons for acquiring and maintaining such shareholding

Integrated cargo transport.

Company Name	CNPJ	CVM Code	Type of Company	Host Country	Host State (Federation Unit)	Host County (State Unit)	Issuer share (%)
Minerações Brasileiras Reunidas S.A. – MBR	33.417.445/0001-20	-	Controlled	Brazil	MG	Nova Lima	100.000000

Description of the activities developed

The mining industry, including research and mining; the provision of technical services especially to mining companies; transportation, processing, shipment and the trading of ores, on their own account or by third parties; the export and import of ores; the corporate interest in other companies, especially those engaged in mining or transportation, industrialization, shipment and trade of ore; provision of transport services, port and waterway support.

Fiscal Year	Book value – variation (%)	Market value – variation (%)	Amount of dividends received (BRL)	Market Value		Book Value	
12/31/2020	32.01638	0.000000	445,000,000.00				
12/31/2019	44.13194	0.000000	901,000,000.00				
12/31/2018	6.33192	0.000000	866,000,000.00				
				Date	Value (R\$)	Date	Value (R\$)
				12/31/2020	-	12/31/2020	10,960,000,000.00
				0			0

Reasons for acquiring and maintaining such shareholding

Running iron ore operations in Brazil.

9.2 – Other relevant information

Additional Information to Item 9.1 (a)

Due to system limitations, the following are some information related to item 9.1 (a):

Fixed Assets Description	Location Country	State Location (Federation Unit)	County Location	Type of property
Pelletizing plant and Port of Sohar	Oman		Sohar	N/A
Malaysian Ore Distribution Center	Malaysia		Perak	Own
Port Colborne smelter of precious metals	Canada		Ontario	Own

The sale of Vale Nova Caledonia to Prony Resources, on March 31, 2021, included the New Caledonia nickel processing plant and mine.

Additional Information to Item 9.1(b)

Trademarks, Patents and Computer Programs

On December 31st, 2020, Vale recognized as intangible assets of Intellectual Property a total of 5,025 processes worldwide, in a total of 88 countries (189 patents in Brazil and 735 abroad; 726 trademark processes in Brazil and 1,467 abroad; 359 domain names in Brazil and 1,432 abroad, and 116 computer programs in Brazil and 1 abroad).

The VALE brand is protected in Brazil and abroad in several other categories of products and services, in its word, composite and figurative forms.

Concessions and Authorizations

Regarding the concessions of MRS, FCA and FNS mentioned in item 9.1 (b), the Company clarifies that, since MRS is an affiliate of Vale and FCA and FNS are subsidiaries of VLI (also an affiliate of Vale), the referred MRS and VLI concessions are not recorded in Vale's consolidated Financial Statements. Notwithstanding this fact, considering the importance of concessions to Company's operations, the Company included them in item 9.1(b).

Additionally, due to system limitations, below are some tables related to item 9.1(b):

Leases (CPBS)	Lease agreement between Companhia DOCAS do Rio de Janeiro (CDRJ) and Companhia Portuária de Sepetiba	25 years, to expire on 06/30/2026	Unilateral termination may be declared by means of a summary procedure that assures the Lessee the right to defense, in the following events, besides other ones foreseen in the agreement: a) non-execution of works, unjustified delay in the implementation of the Terminal, execution in non-compliance with in the contract; b) non-compliance with legal, regulatory or contractual obligations; c) default on guaranteed financial obligations. The contract and regulatory framework in force provide for the	Interruption of operations
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			possibility of extending the term for another 25 years.	
Authorizations (TIG)	The Authorization includes handling and/or storage, in the Terminal, of own and third-party goods intended for or coming from waterway transportation, in the form of exploration for mixed private use, as provided for in sub-item "b" of item II of paragraph 2 of the article 4 of Law 8,630 of 1993.	25 years, to expire on 09/25/2039	The penalty of revocation of the authorization may be the one applied by the granting authority, upon a proposal by ANTAQ, considering the seriousness of the breach, when: I- failure to comply with the subpoena requiring the performance of the works or operation of the port facility, within 60 days; II- the inspection by ANTAQ has been prevented or hindered; III- failure to comply with the specified time limits for the provision of documents or information demanded in this agreement or regulations edited by ANTAQ, or when requested by the Agency; IV- there is an unjustified failure to comply with the schedule relating to the construction, operation and investments in the port facility subject to this authorization; V- there is a loss of conditions indissoluble for the fulfillment of the authorization object or its irregular transfer; VI- performance of the following acts without prior and express approval of the granting agency: a) transfer of ownership of the authorization; b) change in the type of cargo handled; b) changing the type of cargo being handled; or c) expanding the area of the port facility; VII- there is an infraction in any other way that may be determined by ANTAQ and that provides for the penalty of forfeiture due to noncompliance.	Interruption of operations
Authorizations (TMPM)	Adhesion Agreement entered into by the Union, through ANTAQ, and company Vale S.A. The authorized legal entity will explore the Port Facility on its own account and risk.	25 years, to expire on 09/25/2039	The penalty of revocation of the authorization may be the one applied by the granting authority, upon a proposal by ANTAQ, considering the seriousness of the breach, when: I- failure to comply with the subpoena requiring to regularize the execution of works or the operation of the port facility, within 60 days; II- ANTAQ's inspection is prevented or hindered; III- failure to comply with the specified time limits for the provision of documents or information required in this agreement or regulations issued by ANTAQ, or when requested by the Agency; IV- unjustified failure to comply with the schedule relating to the construction, operation and investment in the port facility	Interruption of operations

			subject to authorization; V-there is a loss of the conditions essential to the fulfillment of the object of the authorization or its irregular transfer; VI- performance of the following acts without the prior express approval of the granting authority: a) transferring the authorization to another person; b) changing the type of cargo being handled; or c) expanding the area of the port facility; VII- there is an infraction in any other way that may be determined by ANTAQ and that provides for the penalty of forfeiture due to noncompliance.	
Authorizations (Tubarão)	<p>Adhesion Agreement entered into by the Union, through ANTAQ, and company Vale S.A.</p> <p>The authorized legal entity will explore the Port Facility on its own account and risk.</p>	25 years, to expire on 09/25/2039	The penalty of revocation of the authorization may be the one applied by the granting authority, upon a proposal by ANTAQ, considering the seriousness of the breach, when: I- failure to comply with the subpoena requiring the performance of the works or operation of the port facility, within 60 days; II- the inspection by ANTAQ has been prevented or hindered; III- failure to comply with the specified time limits for the provision of documents or information demanded in this agreement or regulations edited by ANTAQ, or when requested by the Agency; IV- there is an unjustified failure to comply with the schedule relating to the construction, operation and investments in the port facility subject to this authorization; V- there is a loss of conditions indissoluble for the fulfillment of the authorization object or its irregular transfer; VI- performance of the following acts without prior and express approval of the granting agency: a) transfer of ownership of the authorization; b) change in the type of cargo handled; b) changing the type of cargo being handled; or c) expanding the area of the port facility; VII- there is an infraction in any other way that may be determined by ANTAQ and that provides for the penalty of forfeiture due to noncompliance.	Interruption of operations
Authorizations (Praia Mole)	<p>Adhesion Agreement entered into by the Union, through ANTAQ, and company Vale S.A.</p>	25 years, to expire on 09/25/2039	The penalty of revocation of the authorization may be the one applied by the granting authority, upon a proposal by ANTAQ, considering the seriousness of the breach, when: I- failure to comply with the subpoena requiring the performance of the works or operation of the port facility, within	Interruption of operations

	<p>The authorized legal entity will explore the Port Facility on its own account and risk.</p>		<p>60 days; II- the inspection by ANTAQ has been prevented or hindered; III- failure to comply with the specified time limits for the provision of documents or information demanded in this agreement or regulations edited by ANTAQ, or when requested by the Agency; IV- there is an unjustified failure to comply with the schedule relating to the construction, operation and investments in the port facility subject to this authorization; V- there is a loss of conditions indissoluble for the fulfillment of the authorization object or its irregular transfer; VI- performance of the following acts without prior and express approval of the granting agency: a) transfer of ownership of the authorization; b) change in the type of cargo handled; b) changing the type of cargo being handled; or c) expanding the area of the port facility; VII- there is an infraction in any other way that may be determined by ANTAQ and that provides for the penalty of forfeiture due to noncompliance.</p>	
<p>Authorizations (MCR - Gregório Curvo)</p>	<p>Adhesion agreement entered into by the Union, through ANTAQ and Mineração Corumbaense Reunida S.A.</p> <p>The authorized legal entity will explore the Port Facility on its own account and risk.</p>	<p>25 years, to expire on 09/25/2039</p>	<p>The penalty of revocation of the authorization may be the one applied by the granting authority, upon a proposal by ANTAQ, considering the seriousness of the breach, when: I- failure to comply with the subpoena requiring the performance of the works or operation of the port facility, within 60 days; II- the inspection by ANTAQ has been prevented or hindered; III- failure to comply with the specified time limits for the provision of documents or information demanded in this agreement or regulations edited by ANTAQ, or when requested by the Agency; IV- there is an unjustified failure to comply with the schedule relating to the construction, operation and investments in the port facility subject to this authorization; V- there is a loss of conditions indissoluble for the fulfillment of the authorization object or its irregular transfer; VI- performance of the following acts without prior and express approval of the granting agency: a) transfer of ownership of the authorization; b) change in the type of cargo handled; b) changing the type of cargo being handled; or c) expanding the area of the port</p>	<p>Interruption of operations</p>

			facility; VII- there is an infraction in any other way that may be determined by ANTAQ and that provides for the penalty of forfeiture due to noncompliance.	
Authorizations	Authorization for the implantation and exploration of Solar Photovoltaic Plants for the purpose of power generation	2054	(i) Advent of the final term of the agreement; (ii) takeover; (iii) expiry; (iv) termination; (v) annulment arising from an illegality or irregularity found in the procedure or in the act of granting it; and (vi) bankruptcy or extinction of the Concessionaire.	Interruption and/or cancellation of the supply of own electricity generation.
Leases	Agreement between EMAP (Empresa Maranhense de Administração Portuária) and Vale S.A. for the lease of an area of 53,600 m ² , located in zone 14 of the development and zoning plan – PDZ of the Itaqui Port, in São Luiz-MA.	20 years, to expire in 01/02/2023	<p>Without loss to any other provision of the contract, it may be rescinded by EMAP, judicially or extrajudicially, when the following cases occur: a) if the contract is transferred to another person, or if the leased area is loaned or sublet to third parties, without the consent of EMAP; b) if the lessee prevents or hinders the inspection by EMAP, or other port authorities operating in the port; c) if the lessee makes use of the site for a purpose not specified in the agreement, or fails to maintain the facilities in good condition of cleaning and conservation; d) if the lessee fails to meet the deadline established in the agreement for implementation of the proposed project, comprising the execution of the works and allocation of the equipment; e) if the lessee fails to comply with any other provision of the agreement; f) in the event of bankruptcy or liquidation of the lessee.</p> <p>The contract and regulatory framework in force provide for the possibility of extending the term for another 20 years.</p>	Interruption of operations

Concession of the Port Infrastructure of Nacala-à-Velha Port Coal Terminal	Exclusive concession and right, at its own risk, to design, construct, operate, manage, own, rehabilitate, maintain, finance, develop and commercially explore port infrastructures at the Nacala-à-Velha Port Terminal, not limited to the handling of coal products, including other ores and related inputs.	2042	The Concession Agreement may terminate by: (i) agreement between the parties, (ii) expiration of the concession period and its renewals, (iii) redemption by the granting authority, (iv) revocation determined by the granting authority, at the request of the concessionaire in case of extraordinary event or case of force majeure or in case of political and legislative risk and conflicts of interest of an institutional nature that make it impossible to fulfill its obligations under the terms of this concession agreement.	Extinction/Loss of rights and transfer to the granting authority of any and all of its rights, titles and interests in respect of the concession, including the assets of the Concession, and as the case may be, the Concessionaire's assets
Concession of the Moatize-Malawi railway lines and the Nacala-Velha railway line between Mussoril and Ponta Namuaxi	Railway Concession and right to design, construct, operate, manage, own, rehabilitate, maintain, finance, develop, commercially exploit railway infrastructures	2042	The Concession Agreement may terminate by: (i) agreement between the parties, (ii) decision of the deadline of the concession period and its renewals, (iii) redemption by the granting authority, (iv) revocation determined by the granting authority, at the request of the concessionaire in the event of an extraordinary event or event of force majeure or in case of political and legislative risk and of conflicts of interest of an institutional nature that makes it impossible to fulfill its obligations under this concession agreement.	Extinction/Loss of rights and transfer to the granting authority of any and all of its rights, titles and interests in respect of the concession, including the assets of the Concession, and as the case may be, the Concessionaire's assets
Vale Logistics Limited (VLL) concession agreement	Concession to build, own and operate the Kachasu railway line on the eastern border with Mozambique to the Nkaya border in Malawi, as part of the Nacala Railway Project	30 years and ends on January 1 st , 2046	VLL Concession Agreement Concession to build, own and operate the Kachasu railway line on the eastern border with Mozambique to the Nkaya border in Malawi, as part of the Nacala Railway Project 30 years due on January 1 st , 2046. Under the terms of clause 32, the Concession Agreement will be terminated for: (a) Government default event resulting from: (i) noncompliance with any obligations that have a material adverse effect on the Concessionaire; (ii) false or incorrect	Interruption and / or cancellation of coal transport operations from the Moatize Coal Mine in the Province of Tete to Nacala-a-Velha, Nampula, Republic of Mozambique

			<p>representation or guarantee by the Government; (iii) an amendment to the law that makes the exercise by the concessionaire and the Government of any of its rights/obligations or performance illegal, null or unenforceable; (iv) removal of any part of the Concessionaire's railway; (v) practice of any act of corruption by the Government entitles the concessionaire to terminate the agreement, or (vi) expropriation; (b) event of default by the concessionaire arising from: (i) failure of the concessionaire to make any payment due to the Government; (ii) default by the concessionaire in the payment of any other amounts owed to the Government; (iii) default by the concessionaire in any relevant aspect in the performance of any other relevant obligations of the concessionaire; (iv) false or incorrect representation or warranty of the concessionaire that has a material effect on the concessionaire's ability to meet its obligations; (v) failure of the concessionaire to complete the construction of the railroad until the date of the long halt (vi) abandonment of the project by the concessionaire (vii) assignment by the concessionaire of all or substantially all of its assets to the benefit of creditors other than an assignment incurred in the ordinary course of business; (viii) a voluntary petition request by the concessionaire for the appointment of a trustee or receiver for all or a substantial part of its assets; (ix) initiated by the concessionaire of bankruptcy, reorganization, arrangement (except a plan of agreement that does not involve an insolvent concessionaire), (ix) if the Concessionaire commits any corrupt act.</p>	
Concession	Management of the Northern	2035	As provided in the Concession Agreement, in its eighteenth clause,	Loss of the right to operate the

	Railway, General Cargo and Passenger Transport on the Northern Railway		regarding the termination of the contract: End. The contract may only be terminated by the granting authority or by the company in the following cases: (i) termination of the contractual term; (ii) waiver by CDN, that can only occur after five years from the date of taking office which was on January 10 th , 2005, and must be made in writing at least 6 months in advance; (iii) force majeure; (iv) termination for noncompliance with the CDN, noncompliance that is not rectified by CDN within the term required in the contract, will give rise to the right on the part of the granting authority to terminate the contract; (v) termination for noncompliance with the granting authority; (vi) termination of the contract in case of unforeseeable alteration of circumstances. The aforementioned clause details each of the extinction hypotheses and, in any of them, the granting authority will stipulate the procedures and means for assuming the provision of services without breaking their continuity, as well as making the payment of the respective indemnities related to the rehabilitation works, development and society assets at the option of society. For further information, see item 18.12 of this Reference Form.	railroad transport service/loss of the concession.
Concession	Concession Agreement for the management and operation of the railway line in Malawi	30 years and ends on January 1 st , 2046 with freedom of extension for another 20 years. (see item 18.12)	The Concession Agreement will be terminated in the following circumstances, pursuant to Clause 63: (a) expiration of the term; (b) mutual termination; (c) Concessionaire default for (i) any false or incorrect representation or warranty by the concessionaire that affects the concessionaire's ability to perform material obligations under the contract; (ii) voluntary bankruptcy filing; (iii) appointment of a provisional liquidator for the liquidation of the concessionaire (iv) issuance by a court of a liquidation order for the Concessionaire that is not suspended or reversed within 30 days; (d) material breach by the concessionaire of any of its	The consequence of the loss of the right to the management and operation of Malawi's railway would be the interruption of its operations.

			<p>obligations. (e) termination for noncompliance of the owner by: (i) any ideological misrepresentation or assurance made by the Government that affects Government's ability to perform material obligations under the contract; (ii) expropriation, repossession of any right or other real property by the Government of any share capital or shares of the concessionaire without compensation or that results in an increase in the Government's effective participation in the concessionaire; (f) amalgamation, reorganization, reconstruction, privatization or other dissolution of the owner; (g) material breach by the Government of any obligations; (h) changes to any applicable regulations; (i) change to the interpretation of any applicable regulation. For more information, see item 18.12 of this Reference Form.</p>	
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10. Comments of the Officers

The financial information included in this item of the Reference Form, unless otherwise stated, refers to the consolidated financial statements of Vale S.A. ("Vale" or "Company"), prepared in accordance with the international financial reporting standards ("IFRS") issued by the International Accounting Standards Board ("IASB"), and with the accounting practices adopted in Brazil, which comprise the accounting practices provided for in Law 6,404 / 76 and the pronouncements, guidelines and interpretations issued by the Accounting Pronouncements Committee - CPC and approved by the Brazilian Securities and Exchange Commission ("CVM"), related to the fiscal years ended on December 31, 2020, 2019 and 2018.

The information contained in this item 10 of the Reference Form must be read and analyzed together with Vale's consolidated financial statements, available on the Company's website (www.vale.com) and on the website of the Brazilian Securities Commission (www.gov.br/cvm).

10.1. General Financial and Equity Conditions

a. General financial and equity conditions

In February 2021, the Company signed the Global Settlement for the Reparation of Brumadinho, which had been negotiated since 2019, with the State of Minas Gerais, the Public Defender of the State of Minas Gerais, and the Federal and the State of Minas Gerais Public Prosecutors Offices, with initiatives of a socioeconomic and socio-environmental scope, for reparation and full indemnity of the damages resulting from the Dam I rupture, in the total amount of R\$ 37,690 million. With the Global Settlement, the requests contained in public civil actions regarding the socio-environmental and socioeconomic damages caused by the dam rupture were substantially resolved. In addition, relevant aspects related to the scope and execution of the Company's obligations were defined. Therefore, as the negotiations have started before the reporting date, the Company supplemented the provisions by recognizing an expense of R\$ 19,924 million in the income statement for the fiscal year 2020. The Global Settlement does not include indemnities for individual damages, which are defined in the Term of Commitment agreement signed between Vale and the Public Defender's Office of the State of Minas Gerais in April 2019. The Company reinforces its commitment to fair, swift and equitable reparation for these indemnities.

After the Brumadinho dam, the Company's iron ore production capacity was significantly impacted by the shutdown of some operations. In 2020, the Company partially resumed production in all iron ore fine operations that were halted in 2019.

The financial position, cash flows and performance of the Company were particularly affected by the following events and transactions during the year ended December 31, 2020:

- In 2020, as a consequence of the periodic review of the estimates for the de-characterization of the dam structures, the Company recognized R\$ 1,900 million in addition to the provision already recorded. In addition, the Company also identified other structures that met the de-characterization criteria, resulting in an addition of R\$ 1,275 million to the provision.
- In December 2020, the Company signed the early extension terms for its railways concessions related to Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória a Minas ("EFVM"), for an additional thirty years period, from 2027 to 2057. As a result of the agreement, the Company recognized an intangible asset, which represents its right to use of both EFVM and EFC, and their related concession grants liabilities, in the aggregate amount of R\$ 12,016 million.

- In 2020, the Company started looking for a potential buyer for Vale Nouvelle-Calédonie S.A.S. ("VNC") and started studying the other options available to exit the operation. Following the negotiations that took place during the year, VNC's assets and liabilities were classified as "held for sale" and measured at fair value, resulting in the recognition of an impairment loss in the amount of R\$ 2,155 million. In December 2020, the Company signed a binding put option agreement for the sale of its ownership interest in VNC for an immaterial consideration. The proposed transaction is expected to be concluded in the first quarter of 2021. Under this agreement, the Company has reserved the amount of the commitment to fund VNC in approximately R\$ 2,573 million (US\$500 million) to continue VNC operations, including the commitment to invest in the conversion of the tailings deposition from wet to dry-stacking. Therefore, the Company recognized a loss related to VNC in the amount of R\$ 4,728 million recognized in the income statement as "Impairment and disposals of non-current assets" for the year ended December 31, 2020.
- In 2020, the Company tested the recoverability of its loan receivable from Nacala BV. The testing was triggered by the revisions undertaken on the coal volumes that are projected to be transported on the railway, resulting in a loss of R\$ 4,106 million, recognized in the income statement as "Impairment and disposals of non-current assets" for the year ended December 31, 2020.
- During 2020, Fundação Renova reviewed the assumptions used on the preparation of the estimates incorporated into the mitigation and compensation programs. The periodic review resulted in an addition of R\$ 5,530 million to the provision. In addition, Vale made available R\$ 845 million for Samarco's working capital needs (2019: R\$ 402 million). This amount was recognized in the income statement as "Equity results and other results in associates and joint ventures" for the year ended December 31, 2020.
- In July 2020, the Board of Directors approved the resumption of the stockholders' remuneration policy and paid the amount of R\$ 18,637 million.
- In December 2020, the Company was notified by BNDESPar of the full exercise of the option to purchase 8% of VLI shares held by Vale. With the exercise of this option, Vale received R\$ 1,223 million and holds 29.6% of VLI's total shares. This transaction resulted in a gain of R\$ 885 million, recognized in the income statement as "Equity results and other results in associates and joint ventures" for the year ended December 31, 2020.
- In November 2020, the Company concluded the sale of Biopalma da Amazônia S.A. Reflorestamento Indústria e Comércio ("Biopalma") to Brasil Bio Fuels S.A. As a result of this transaction, a loss of R\$ 681 million was recognized in the income statement as "Impairment and disposals of non-current assets" for the year ended December 31, 2020.
- In August 2020, the conditions precedent of the agreement to sell the Company's stake in Henan Longyu were concluded and the Company received R\$ 843 million as part of the consideration for the transaction. This transaction resulted in a gain of R\$ 598 million due to the recycling of the cumulative translation adjustments at closing, which was recognized as "Equity results and other results in associates and joint ventures" in the income statement for the year ended December 31, 2020.
- In October 2020, the Company concluded the agreement for the divestiture of PT Vale Indonesia Tbk ("PTVI") and received R\$ 1,560 million. The transaction with non-controlling interest resulted in a loss of R\$ 1,012 million, which was recognized in the Stockholders' Equity for the year ended December 31, 2020.

- In September 2020, the Company decided to shut down its operations at the Simões Filho plant in Bahia, resulting in an impairment loss of R\$ 412 million, recognized in the income statement as "Impairment and disposals of non-current assets" for the year ended December 31, 2020.
- In July 2020, Vale Overseas Limited issued guaranteed notes due July 2030, in the amount of R\$ 8,214 million (US\$1,500 million).
- In October 2020, the Company approved the incorporation of a joint venture to build and operate an expansion project for the Shulanghu Port facilities, located in China. Vale's capital contribution to the project is estimated to range from R\$ 600 million to R\$ 900 million. The construction of the project, which is expected to take up to three years, will start after both parties obtain the anti-trust and other regulatory approvals in China.
- On January 20, 2021 (subsequent event), the Company signed a Heads of Agreement ("HoA") with Mitsui & Co., Ltd. ("Mitsui"), allowing both parties to structure Mitsui's exit from the Moatize coal mine ("Vale Moçambique") and the Nacala Logistics Corridor ("NLC"). The HoA determines that Vale will acquire Mitsui's stake in the mine and logistics assets for an immaterial consideration and will undertake the obligation of the Nacala Corridor's Project Finance in full, which has approximately R\$ 12,992 million (US\$2,500 million) outstanding balance at December 31, 2020. In case of closing the transaction, Vale will also control NLC and, therefore, consolidate its assets and liabilities. The parties expect to conclude the transaction in 2021, which is subject to the execution of the definitive agreement and usual precedent conditions. In addition, the Company informed the market its divestiture decision in the coal segment, which may lead to the presentation of this segment as a discontinued operation in future financial statements depending on the Company's assessment.

In 2020, the Company recorded a profit of R\$ 26,713 million compared to a loss of R\$ 6,672 million in 2019. This profit was mainly due to: (a) higher adjusted EBITDA⁷ (R\$ 45,033 million), (ii) reduction in losses recognized by asset impairment (R\$ 8,943 million), partially offset by (iii) increase in net financial result (R\$ 10,694 million), mainly due to the 29% devaluation of the real against the dollar, leading to higher expenses with currency derivatives and interest rates (R\$ 5,547 million) and exchange rate variation (R\$ 2,750 million). The 2020 result was also adversely affected by the updating of the assumptions used in the preparation of the estimated costs necessary for the execution of the repair and compensation programs by Renova Foundation, resulting in the complement of R\$ 5,530 million to the provision recognized by the Company.

The responsible bodies for making operational decisions, allocating resources and evaluating performance are the Executive Boards and the Board of Directors. The performance of the operating segments is assessed based on a measure of adjusted EBITDA. In 2020, the Company's adjusted EBITDA was R\$ 87,340 million compared to R\$ 42,307 million registered in the same period of 2019, an increase of R\$ 45,033 million, mainly due to: (i) strong performance of the ferrous mineral segment, due to the increase in realized prices (R\$ 24,948 million), (ii) positive effect of the devaluation of real against the dollar on net operating revenue (R\$ 46,831 million), partially offset by lower volumes of sales of iron ore and pellets (R\$ 9,492 million) and higher costs of acquisition of iron ore from third parties (R\$ 957 million). Adjusted EBITDA was also affected by expenses related to Brumadinho and donations to COVID-19, which totaled R\$ 27,608 million in 2020. The adjusted EBITDA was reconciled with the Company's net income in item 10.1 (h), of this Reference Form.

⁷ The adjusted EBITDA is a non-GAAP measurement, which is calculated using net income or loss for the period and adding (a) depreciation, depletion and amortization, (b) income tax, (c) financial result, net, (d) equity income and other results in associates and joint ventures, (e) impairment and disposal of non-current assets and (f) dividends received and interest from associates and joint ventures.

The solid generation of operating cash meant that the Company ended the year 2020 with R\$ 74,092 million in cash and cash equivalents and short-term investments, above the gross debt⁸ of R\$ 69,426 million and; therefore, with net cash of R\$ 4,666 million in 2020.

In 2019, the Company recorded a loss attributed to Vale's shareholders, in the amount of R\$ 6,672 million, compared to a profit of R\$ 25,967 million in 2018. This loss was mainly due to: (a) provisions and expenses incurred regarding the Dam I rupture of Brumadinho, including the de-characterization of dams and reparation agreements (R\$ 28,818 million), (b) impairment greater than R\$ 17,268 million related to nickel assets in New Caledonia and assets in coal mines in Mozambique; and (c) additional provisions for the Renova Foundation and de-characterization of the Germano dam of Samarco, in the total amount of R\$ 2,956 million. These factors were partially offset by a reduction of R\$ 8,381 million in foreign exchange losses in 2019, compared to 2018.

In 2019, the Company's adjusted EBITDA was R\$ 42,307 million, a reduction of R\$ 18,747 million compared to the previous year, mainly due to (i) recognition of provisions and expenses incurred regarding the Brumadinho event (R\$ 28,818 million), (ii) lower volumes sold of iron ore fines and pellets (R\$ 6,091 million), (iii) higher expenses with stoppages (R\$ 2,796 million), partially offset by higher average prices realized of iron ore (R\$ 21,487 million), which had an increase of 31.6% in relation to the average price realized in 2018.

The Company generation of operating cash in 2019 enabled (i) the repurchase of bonds in the total amount of R\$ 9,150 million (US\$ 2,270 million), reducing gross debt of R\$ 7,303 million, from R\$ 59,928 million in 2018 to R\$ 52,625 million in 2019, (ii) the increase in cash and cash equivalents and short-term investments to R\$ 32,956 million in 2019, compared to R\$ 22,538 million in 2018. Net debt⁹ went from R\$ 37,390 million in 2018 to R\$ 19,669 million in 2019, reaching the lowest level since 2008.

The table below presents the Company's equity conditions:

(In millions of Reais)	On December 31		
	2020	2019	2018
Current assets	126,805	68,698	59,256
Non-current Assets	351,325	300,973	282,457
Current liabilities	75,838	55,806	35,285
Non-current liabilities	221,306	156,716	132,745
Equity attributable to Vale' stockholders	185,785	161,480	170,403
Current liquidity ratio ⁽¹⁾	1.67	1.23	1.68
General liquidity ratio ⁽²⁾	1.61	1.74	2.03

(1) The current liquidity ratio is calculated by dividing current assets by current liabilities.

(2) The general liquidity ratio is calculated by dividing the sum of current assets and non-current assets by the sum of current liabilities and non-current liabilities.

On December 31, 2020, the Company had controlling stockholders' equity of R\$ 185,785 million, compared to R\$ 161,480 million on December 31, 2019. The increase of R\$ 24,305 million, or 15.1%, is mainly due to the Company's net income of R\$ 26,713 million and the positive effect of currency conversion in the amount of R\$ 20,556 million. Additionally, management decided the amount of R\$ 34,216 million as remuneration to stockholders, of which the amount of R\$ 6,342 million totals the minimum mandatory remuneration for the year 2020, recorded as current liabilities in the Company's balance sheet and R\$ 15,524 million was approved as additional remuneration to the Company's stockholders and is presented in the Equity as "additional remuneration reserve" on December 31, 2020.

⁸ Gross debt comprises the balance of loans and financing liabilities.

⁹ Net debt (cash) comprises the net balance between gross debt and the balance of cash and cash equivalents, and financial investments.

On December 31, 2020, the current liquidity ratio of the Company (which is the index found by dividing the current assets by the current liability) was 1.67, compared to 1.23 on December 31, 2019. The increase in the liquidity ratio was mainly due to the increase in cash and cash equivalents in fiscal year 2020.

On December 31, 2019, the Company had controlling stockholders' equity of R\$ 161,480 million, compared to R\$ 170,403 million on December 31, 2018. The reduction of R\$ 8,923 million or 5.2% is mainly due to the Company's loss of R\$ 6,672 million and the decision to pay dividends in the form interest on stockholder's equity in the total amount of R\$ 7,253 million that were paid in the year ended 2020. These effects were partially offset by the positive currency conversion effect in the amount of R\$ 4,625 million.

On December 31, 2019, the current liquidity ratio of the Company (which is the index found by dividing the current assets by the current liability) was 1.23, compared to 1.68 on December 31, 2018. The drop in the liquidity ratio was mainly due to the recognition of liabilities related to the tailings dam breach in Brumadinho.

In light of the foregoing, the Company has sufficient financial and equity conditions to implement its business plan and fulfill its short and medium term obligations.

For further information on the significant changes in the equity conditions of the Company, see item 10.1 (h) of this Reference Form.

b. Capital structure

The table below presents the funding standard adopted for Company activities, considering equity and third party capital:

(in millions of Reais)	On December 31,					
	2020	AV ¹ (%)	2019	AV ¹ (%)	2018	AV ¹ (%)
Third Party Capital (Current and non-current liabilities)	297,144	62.1%	212,522	57.5%	168,030	49.2%
Equity (stockholders' equity)	180,986	37.9%	157,149	42.5%	173,683	50.8%
Total capital (Total liabilities)	478,130	100.0%	369,671	100.0%	341,713	100.0%

(1) Vertical analysis.

The Company's capital structure has an adequate proportion between equity and third-party capital, considering the performance of operating cash, financial indicators and the Company's equity condition.

c. Payment Capacity in relation to the financial commitments assumed

In the regular course of business, the main needs for funds of the Company refers to investments, payments of dividends, and debt service. The Company expects to meet these requirements, in accordance with its historical policies and practices, using cash generated by operating activities.

The Company constantly evaluates opportunities for generating additional cash and is committed to continuing to reduce its costs and expenses, maintaining the level of indebtedness and discipline in the allocation of capital.

The table below presents information on the Company's indebtedness:

(in millions of Reais)	On December 31,		
	2020	2019	2018
Gross debt ⁽¹⁾	69,426	52,625	59,928
Cash and cash equivalents and short-term investments	74,092	32,956	22,538
Net debt (cash) ⁽²⁾	(4,666)	19,669	37,390
Leases (IFRS 16)	8,662	7,218	-
Currency swaps	4,591	62	1,830
REFIS	14,262	15,749	16,852
Brumadinho provisions	35,671	22,056	-
Germano & Renova Foundation provisions	10,782	6,853	4,346
Expanded net debt	69,302	71,607	60,418
Adjusted EBITDA	87,340	42,307	61,054
Gross Debt / Adjusted EBITDA Ratio	0.8	1.2	1.0
Adjusted EBITDA / gross interest expense	20.7	10.9	14.2

(1) Gross debt is made up of the balance of loans and financing liabilities.

(2) Net debt (cash) comprises the net balance between gross debt and the balance of cash and cash equivalents, and short-term investments.

As of December 31, 2020, the Company's gross debt totaled R\$ 69,426 million, compared to R\$ 52,625 million on December 31, 2019, representing an increase of 32%, mainly due to the exchange variation of debts contracted in foreign currency (impact of R\$ 16,111 million), due to the devaluation of the real against the dollar, which changed from an exchange rate of R\$ 4.03 to US\$ 1.00 on December 31, 2019 to R\$ 5.20 to US\$ 1.00 on December 31, 2020. The principal of R\$ 3,561 million of the debt matures in 2021.

The company adopted the concept of expanded net debt to manage its liquidity and cash flow management, and includes, in addition to the obligations contracted with financial institutions, also the obligations to deliver cash to third parties outside its regular operating process, more specifically the liabilities related to the liabilities of the Brumadinho event, Renova Foundation, Samarco and REFIS.

The Company understands that, based on the data set out above, it has full conditions to make good its short- and long-term financial commitments.

d. Sources of financing for working capital and investments in noncurrent assets used

The sources of funds used by the Company to finance working capital and investments in noncurrent assets in the years analyzed in this form were substantially the result of its own generation of operating cash.

In 2020, the Company's operating activities generated cash flows from operations of R\$ 75,208 million compared to R\$ 47,282 million in 2019, mainly due to better operating results and lower interest on loans (R\$ 849 million), but adversely affected by greater variation in working capital (R\$ 16,048 million). The company also issued bonds in July 2020, totaling R\$ 8,214 million for use in general corporate purposes. In 2019, operating activities generated cash flows from continuing operations of R\$ 47,282 million, in line with the R\$ 47,920 million generated in 2018.

For information on the most relevant loan and borrowings contracts that occurred in the last three fiscal years, see item 10.1 (f) of this Reference Form.

e. Financing sources for working capital and for investments in non-current assets that you intend to use to cover liquidity deficiencies

As previously mentioned, the main sources of financing for working capital and for investments in noncurrent assets used by the Company are its own operating cash generation. Additionally, to mitigate liquidity risk, the Company has two revolving credit facilities (RCF), maturing in 2022 and 2024, in the total amount of R\$ 25,984 million (US\$ 5,000 million) to assist the short term liquidity management and to enable more efficiency in cash management, being consistent with the strategic focus on cost of capital reduction.

f. Indebtedness levels and composition of such debts

Debt structure (in millions of Reais)	On December 31,		
	2020	2019	2018
Gross debt	69,426	52,625	59,928
Average term of amortization (in years)	8.4	8.5	8.9
Average cost (in %)	4.5%	4.9%	5.1%

Average debt maturity was 8.4 years on December 31, 2020, in line with the 8.5 years on December 31, 2019. Average cost of debt, after currency and interest rate swaps, decreased to 4.5% per year on December 31, 2020, when compared to 4.9% per year on December 31, 2019, mainly due to lower interest rates in the international capital market.

Average debt maturity decreased to 8.5 years on December 31, 2019, when compared to 8.9 years on December 31, 2018. Likewise, average cost of debt, after currency and interest rate swaps, decreased to 4.9% per annum on December 31, 2019 when compared to 5.1% per annum on December 31, 2018, mainly due to the repurchase of higher yield and longer-term bonds during the year.

i. Relevant loan and borrowings contracts

Please find below the position of the Company's loans and borrowings at the end of the years 2020, 2019 and 2018:

(R\$ million)	Average interest rate	December 31, 2020	December 31, 2019	December 31, 2018
Quoted in the secondary market:				
Bonds	6.01%	38,709	23,978	31,847
Eurobonds	4.29%	4,783	3,398	3,329
Debentures	10.48%	2,576	4,011	4,036
Debt contracts in Brazil in:				
R\$, indexed to TJLP, TR, IPCA, IGP-M and CDI	9.29%	4,470	5,368	8,692
R\$, with fixed interest	2.86%	180	358	572
Basket of currencies and bonds in US\$ indexed to LIBOR	2.31%	290	400	780
Debt contracts in the international market in:				
US\$, with variable and fixed interest	2.24%	16,759	12,871	8,276
EUR, with variable interest	-	-	907	888
Other currencies, with fixed interest	3.17%	616	483	586
Accrued charges		1,043	851	922
Total		69,426	52,625	59,928

The most important categories of the total debt of the Company are presented below. The amounts shown exclude accrued interest.

Quoted in the secondary market:

- **Fixed income instruments issued in US dollars (equivalent to R\$ 38,709 million, R\$ 23,978 million and R\$ 31,847 million, on December 31, 2020, 2019 and 2018, respectively).** The Company has issued several debt securities in the capital market, including through its wholly-owned subsidiary, Vale Overseas, in the total amount of US\$ 6,631 million (equivalent to R\$ 34,462 million) until December 31, 2020. The subsidiary Vale Canada issued debt securities in the amount of US\$ 297 million (equivalent to R\$ 1,541 million).
- **Fixed income instruments issued in euros (equivalent to R\$ 4,783 million, R\$ 3,398 million and R\$ 3,329 million, on December 31, 2020, 2019 and 2018, respectively).** The Company issued debt securities in the capital market in the total amount of € 750 million (equivalent to R\$ 4,783 million). The Company will redeem on March 29, 2021 (subsequent event), all bonds with a coupon of 3.750% and maturing on January 10, 2023. The remaining balance is € 750 million.

Debt contracts in Brazil, including debentures:

- **Loans contracted in Brazil (R\$ 7,516 million, R\$ 10,137 million and R\$ 14,080 million on December 31, 2020, 2019 and 2018, respectively).** The Company has several loans taken out in Brazil, mainly with BNDES and some Brazilian private banks

Debt contracts in the international market:

- **Loans and financing contracted in US dollars (equivalent to R\$ 16,759 million, R\$ 12,871 million, and R\$ 8,276 million, on December 31, 2020, 2019 and 2018, respectively).** These loans include credit facilities for exports, financing imports from the export credit agencies and loans from commercial banks and multilateral organizations.
- **Loans and financing contracted in euros and other debts (equivalent to R\$ 616 million, R\$ 1,390 million and R\$ 1,474 million, as of December 31, 2020, 2019 and 2018, respectively).** This category includes export credit facilities.

Among other more relevant operations in the three-year period, the following are highlighted:

- (1) In March 2020, the US\$ 5,000 million (equivalent to R\$ 25,984 million) of the revolving credit facilities (RCF) were fully disbursed, with US\$ 2,000 million (equivalent to R\$ 10,393 million) of the credit facility, maturing in 2022, and the US\$ 3,000 million (equivalent to R\$ 15,591 million) of the credit facility maturing in 2024. These credit facilities were paid in full in September 2020.
- (2) In July 2020, the Company issued through its wholly-owned subsidiary Vale Overseas Limited, bonds maturing in July 2030, in the amount of US\$ 1,500 million (equivalent to R\$ 8,214 million) with a coupon of 3.75% p.a., paid semiannually and yield of 3.85% p.a..
- (3) In August 2020, a loan of US\$ 300 million (equivalent to R\$ 1,638 million) was contracted, offered by The Export-Import Bank of China ("CEXIM") related to the charter contracts signed between Vale International and companies directly or indirectly controlled by the Chinese.
- (4) In 2020, the remaining balance of the loan granted by Export Development Canada - EDC to Vale Canada was paid in advance, in the amount of US\$ 10,294 million (equivalent to R\$ 56,719 million).

- (5) In December 2020, there was an early settlement of the loan granted by the French government to Vale Canada, and which was destined to investments made by Vale Nova Caledônia of € 200 million (equivalent to R\$ 1,180 million).
- (6) In December 2019, the Company prepaid US\$ 518 million (equivalent to R\$ 2,088 million) to development agencies.
- (7) In September and December 2019, the Company settled US\$ 2,167 million (equivalent to R\$ 8,903 million) in securities issued by its wholly owned subsidiary Vale Overseas Ltd., maturing in 2021, 2022, 2026, 2034, 2036 and 2039 and US\$ 103 million (equivalent to R\$ 429 million) in securities issued by its wholly owned subsidiary Vale Canada Limited., maturing in 2032, totaling US\$ 2,270 million (equivalent to R\$ 9,332 million).
- (8) In November 2018, the Company settled US\$ 600 million (equivalent to R\$ 2,325 million) in securities issued by its wholly owned subsidiary Vale Overseas Ltd., maturing in 2036, together with the repurchase of US\$ 400 million (equivalent to R\$ 1,550 million) of the security issued by its wholly owned subsidiary Vale Overseas Ltd., maturing in 2022.
- (9) In June 2018, the Company settled US\$ 980 million (equivalent to R\$ 3,796 million) in securities issued by Vale S.A., maturing in 2042.
- (10) In April 2018, the Company settled US\$ 499 million (equivalent to R\$ 1,933 million) in securities issued by its wholly-owned subsidiary Vale Overseas Ltd, maturing in 2020.
- (11) In March 2018, the Company settled US\$ 969 million (equivalent to R\$ 3,755 million) in bonds issued by its wholly-owned subsidiary Vale Overseas Ltd., with maturity in 2021, together with the repurchase of US\$ 781 million (equivalent to R\$ 3,026 million) of the bond issued by its wholly-owned subsidiary Vale Overseas Ltd., due in 2022.
- (12) In 2018, the Company prepaid US\$ 1,100 million (equivalent to R\$ 4,262 million) in export prepayment operations, US\$ 259 million (equivalent to R\$ 1,003 million) in export credit notes with commercial banks and US\$ 876 million (equivalent to R\$ 3,396 million) in operations with the bank Export Development Canada (EDC).
- (13) In 2018, the Company borrowed US\$ 1,150 million (equivalent to R\$ 4,456 million) through pre-export financing agreements with commercial banks.

ii. Other long-term relationships with financial institutions

Although there are no debt-related contracts other than those described above, the Company maintains a commercial relationship in the normal course of its business with some of the main international financial institutions and in the country, in accordance with usual financial market practices.

iii. Degree of subordination among debts

There is no degree of contractual subordination among the Company's unsecured corporate debts. Financial debts that are secured through collateral have the privileges and prerogatives granted by the law.

Degree of subordination among debts (In millions of Reais)	On December 31		
	2020	2019	2018
Loans and borrowings	69,426	52,625	59,928
Unsecured obligations	98.7%	98.3%	98.5%
Obligations with real guarantees	1.3%	1.7%	1.5%

The securities issued through Company's wholly-owned finance subsidiary Vale Overseas Limited are fully and unconditionally guaranteed by Vale.

iv. Any restrictions imposed on the Company, in particular, in relation to debt limits and contracting of new debts, the distribution of dividends, the sale of assets, the issuance of new securities and the sale of corporate control, as well as whether the Company has fulfilling these restrictions.

Some of the Company's long-term financial instruments contain obligations related compliance with financial indicators. The indicators are:

- (i) leverage, thus understood as the ratio obtained by dividing gross debt over Adjusted EBITDA ("Leverage"); and
- (ii) interest coverage, thus understood as the ratio obtained by dividing Adjusted EBITDA over interest expenses ("Interest Coverage").

For more information on adjusted EBITDA for continuing operations, including its calculation, see items 3.2 and 10.1 (h) of this Reference Form.

	On December 31,		
	2020	2019	2018
Leverage	0.8x	1.2x	1.0x
<i>Maximum limit of 4.5x</i>			
Interest coverage	20.7x	10.9x	14.2x
<i>Minimum limit of 2.0x</i>			

As of December 31, 2020, 2019 and 2018, the Company was in compliance with the levels required for the Leverage and Interest Coverage indicators, in relation to the amounts of R\$ 11,339 million, R\$ 9,914 million, and R\$ 10,674 million, respectively, tied to these indicators.

g. Limits of financing contracted and percentage of use

The Company has two revolving credit facilities, maturing in 2022 and 2024, in the total amount of R\$ 25,984 million (US\$ 5,000 million) to assist the short term liquidity management and to enable more efficiency in cash management, being consistent with the strategic focus on cost of capital reduction. As of December 31, 2020, 2019 and 2018, there was no outstanding debit balance related to these credit facilities.

In December 2020, the financing contract with BNDES in the amount of R\$ 400 million, to finance the acquisition of equipment was canceled. As of December 31, 2020, 2019 and 2018, there was no outstanding debit balance related to these credit facilities.

In October 2020, the Company contracted a loan of R\$ 1,559 million (US\$ 300 million) with New Development Bank ("NDB", the BRICS bank). The credit facility is linked to investments in expanding the North Corridor's logistical capacity. This loan was fully disbursed in January 2021 (subsequent event).

h. Significant changes in each item of Vale's consolidated financial statements

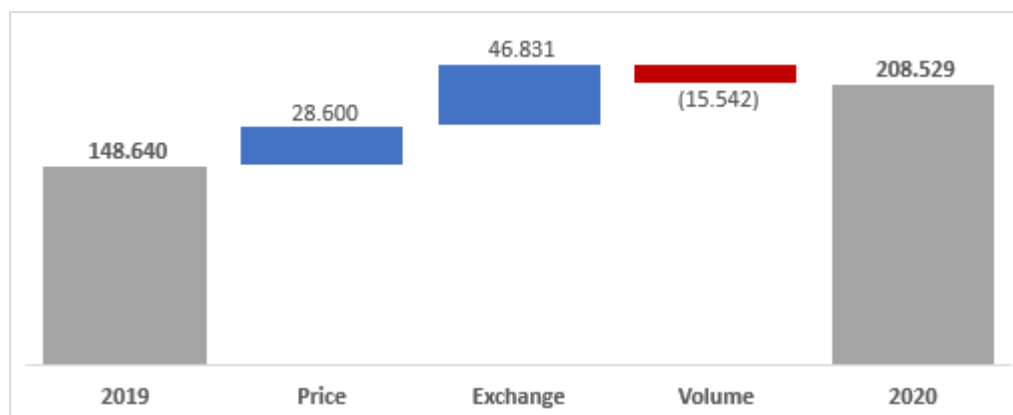
Analysis of the income statement for the fiscal years ended December 31, 2020, 2019 and 2018

Statement of Income (in millions of reais)	Fiscal year ended on December 31,						Horizontal Analysis	
	2020	AV (%) ¹	2019	AV (%) ¹	2018	AV (%) ¹	(2020 x 2019) %	(2019 x 2018) %
Net operating revenue	208,529	100	148,640	100	134,483	100.0	40.3	10.5
Cost of goods sold and services rendered	(98,567)	(47.3)	(83,836)	(56.4)	(81,201)	(60.4)	17.6	3.2
Selling and administrative expenses	(2,857)	(1.4)	(1,924)	(1.3)	(1,917)	(1.4)	48.5	0.4
Research and evaluation expenses	(2,293)	(1.1)	(1,765)	(1.2)	(1,376)	(1.0)	29.9	28.3
Pre-operating and operational stoppage	(4,517)	(2.2)	(4,559)	(3.1)	(984)	(0.7)	(0.9)	363.3
Brumadinho event	(27,016)	(13.0)	(28,818)	(19.4)	-	-	(6.3)	-
Other operating expenses, net	(3,956)	(1.9)	(2,052)	(1.4)	(1,613)	(1.2)	92.8	27.2
Impairment and disposal of non-current assets	(11,819)	(5.7)	(20,762)	(14.0)	(3,523)	(2.6)	(43.1)	489.3
Operating income	57,504	27.6	4,924	3.3	43,869	32.6	1,067.8	(88.8)
Financial results, net	(24,140)	(11.6)	(13,446)	(9.0)	(18,058)	(13.4)	79.5	(25.5)
Equity results and other results in associates and joint ventures	(5,436)	(2.6)	(2,684)	(1.8)	(693)	(0.5)	102.5	287.3
Income (loss) before income taxes	27,928	13.4	(11,206)	(7.5)	25,118	18.7	(349.2)	(144.6)
Income taxes	(3,025)	(1.5)	2,509	1.7	966	0.7	(220.6)	159.7
Loss from discontinued operations	-	-	-	-	(310)	(0.2)	-	(100.0)
Net income (loss) attributable to non-controlling shareholders	(1,810)	(0.9)	(2,025)	(1.4)	117	0.1	(10.6)	(1,830.8)
Net income (loss) attributable to Vale's stockholders	26,713	12.8	(6,672)	(4.5)	25,657	19.1	(500.4)	(126.0)

(1) Relating to net operating revenue.

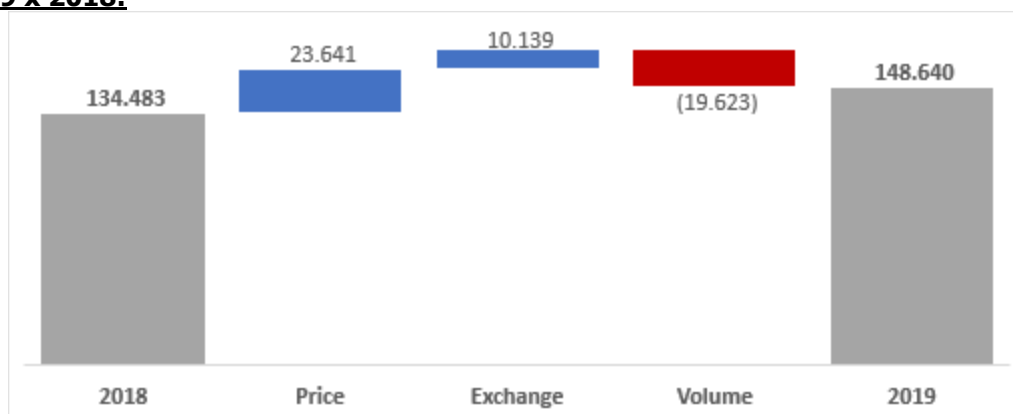
Net operating revenue

2020 x 2019:



In 2020, net operating revenue totaled R\$ 208,529 million, compared to R\$ 148,640 million on December 31, 2019. The increase of R\$ 59,889 million is mainly due to the positive effect of the 30.7% devaluation of the real against the dollar in the year, and the higher realized iron ore prices and higher revenues from base metal by-products, partially offset due to the lower volumes sold of ferrous minerals (R\$ 14,256 million).

2019 x 2018:



In 2019, net operating revenue totaled R\$ 148,640 million, compared to R\$ 134,483 million on December 31, 2018. The increase of R\$ 14,157 million is mainly due to higher realized prices, mainly for iron ore fines and pellets, which were partially offset by lower sales volumes.

For further information on Company's revenues, see item 10.2(b) of this Reference Form.

Costs of goods sold and services rendered

Costs related to each business segment are detailed below:

Horizontal Analysis

Cost of goods sold and services rendered per segment (in millions of reais)	Fiscal Year Ended as of December 31,			(2020 X 2019) (2019 X 2018)	
	2020	2019	2018	%	%
Ferrous minerals	53,169	47,505	47,995	11.9	(1.0)
Base metals	20,800	14,874	14,715	39.8	1.1
Coal	7,536	6,462	5,811	16.6	11.2
Other segments	1,675	1,541	961	8.7	60.4
Depreciation	15,387	13,454	11,719	14.4	14.8
Total	98,567	83,836	81,201	17.6	3.2

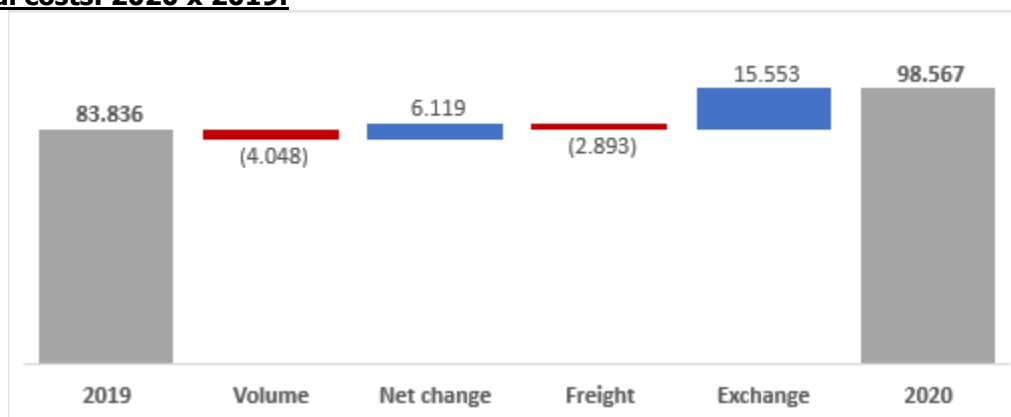
Costs with currency are detailed below:

	2020	Variation (%)	2019	Variation (%)	2018
Average Exchange Rates (Real/Dollar)	5.16	30.7%	3.95	7.9%	3.66
Closing Exchange Rates (Real/Dollar)	5.20	28.9%	4.03	4.0%	3.87

Costs per currency, in percentage:

Dollar (USD)	53.0%	4.2%	48.8%	12.9%	35.9%
Real (BRL)	39.5%	-4.7%	44.2%	-6.4%	50.6%
Canadian Dollar (CAD)	6.3%	0.4%	5.9%	-5.3%	11.2%
Other currencies	1.2%	0.1%	1.1%	-1.2%	2.3%

Total costs: 2020 x 2019:

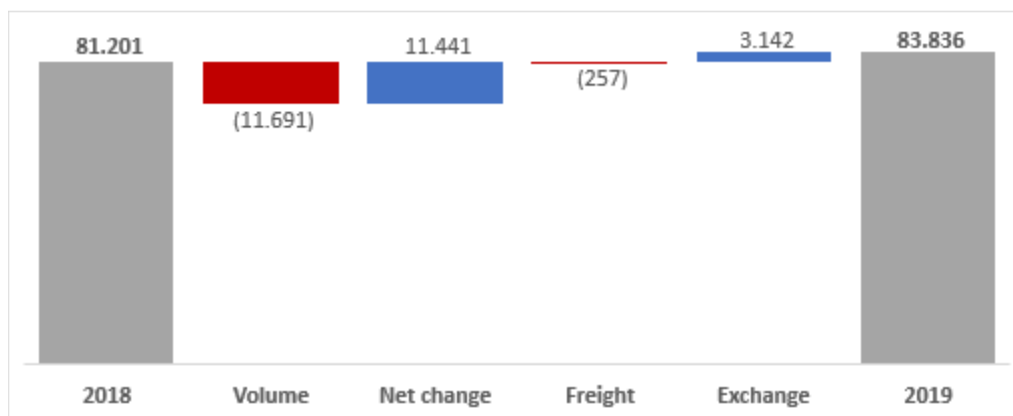


As of December 31, 2020, the total cost of products and services sold totaled R\$ 98,567 million, compared to R\$ 83,836 million on December 31, 2019. The increase of R\$ 14,731 million or 17.6% is due mainly to:

- Increase in costs related to the negative effect of exchange rate variations, on costs linked to other currencies, mainly in the base metals and coal segment, where most of the Company's operations are located internationally. In ferrous minerals, the exchange rate also had a negative impact, due to the costs of international sea freight and the acquisition of iron ore from third parties, which are expressed in dollars (R\$ 15,553 million).
- Specifically in the ferrous mineral segment, the following was identified: increases in costs with ore royalties and acquisition from third parties impacted by higher iron ore reference prices by 16.6% (R\$ 1,364 million); higher production costs due to higher expenses with service providers and materials (R\$ 1,520 million), maintenance of operations (R\$ 1,930 million), and personnel (R\$ 1,139 million) due to the search for improvement and recovery of volumes of the ferrous mineral operations, and extraordinary expenses related to COVID-19. The lower sales volume of ferrous minerals (R\$ 4,368 million) and lower sea freight costs (R\$ 2,893 million), mainly due to 23% reduction in the bunker, partially offset the increase in costs for the year.

- In the base metal segment, higher volumes sold by base metal operations in Canada, resulted in higher costs compared to the previous year (R\$ 701 million), along with higher costs due to increased volumes and prices of third-party acquisition of copper (impact of R\$ 1,243 million) and higher costs related to the scheduled maintenance activities at the Copper Cliff Nickel Refinery, in Sudbury (impact R\$ R\$ 201 million).
- In the Coal segment, costs were higher than the previous year due to the operational problems of the beneficiation plants in Mozambique, which led the Company to start a process to renovate these plants, which are expected to be completed in the first half of 2021.

Total costs: 2019 x 2018:



As of December 31, 2019, the total cost of products and services sold totaled R\$ 83,836 million, compared to R\$ 81,201 million on December 31, 2018. The increase of R\$ 2,635 million or 3.2% is due mainly to:

- Increase in costs related to the negative effect of exchange rate variations, on costs linked to other currencies, mainly in the base metals and coal segment, where most of the Company's operations are located internationally. In ferrous minerals, the exchange rate also had a negative impact, due to the costs of international sea freight and the acquisition of iron ore from third parties, which are expressed in dollars (R\$ 3,142 million).
- Specifically in the ferrous mineral segment, the following was identified: increase in costs with iron ore royalties and acquisition from third parties impacted by higher iron ore reference prices by 34.5% (R\$ 1,805 million); higher production costs due to higher expenses with service providers and materials (R\$ 1,245 million), maintenance of operations (R\$ 1,529 million), and expenses with fuel (R\$ 560 million). The lower sales volume of ferrous minerals (R\$ 7,480 million) partially offset the increase in costs for the year.
- In the base metal segment, the reduction of production due to operational problems in VNC and scheduled and unscheduled maintenance shutdowns at Copper Cliff refineries in Sudbury, Clydach in Matsusaka and Long Harbor, and in operations of Sossego resulted in higher costs when compared to the previous year. Likewise, Onça Puma resumed mining operations (suspended since September 2017) and nickel processing activities (suspended since June 2019), after the favorable decision of the Supreme Court ("STF") in September 2019.

Selling and administrative expenses

Selling and administrative expenses totaled R\$ 2,857 million in 2020, compared to R\$ 1,924 million in 2019. In 2020, selling expenses represent 16% of this total and personnel expenses represent 40%.

Pre-operating and operational stoppage

As of December 31, 2020, pre-operating and operational stoppage expenses totaled R\$ 4,517 million, in line with the R\$ 4,559 million from December 31, 2019. A substantial part of these expenses refers to the consequences of the Brumadinho event, where some iron ore operations were halted or their production volumes were reduced due to court decisions or technical analyses carried out by the Company in its upstream dam structures located in Brazil. The costs of these shutdowns, including the idleness of these plants was R\$ 3,206 million on December 31, 2020 compared to R\$ 3,888 million on December 31, 2019. Company is working on the legal and technical measures to resume all operations at full capacity.

As of December 31, 2019, pre-operating and operational stoppage expenses totaled R\$ 4,559 million compared to R\$ 984 million on December 31, 2018. The increase of R\$ 3,575 million is mainly due to the operational stops resulting from the Brumadinho event (R\$ 3,888 million), partially offset by the conclusion of the ramp-up of the S11D project.

Other operating expenses, net

As of December 31, 2020, the other operating expenses totaled R\$ 3,956 million compared to R\$ 2,052 million, mainly due to higher obligations for the demobilization of assets of R\$ 1,227 million, and expenses with early termination of contracts of converted vessels of R\$ 610 million.

As of December 31, 2019, other operating expenses totaled R\$ 2,052 million compared to R\$ 1,613 million in 2018, mainly related to the recognized provision arising from the change in the expected outcome of probable loss of the lawsuit related to the accident of ship loaders, at the Praia Mole maritime terminal, in Espírito Santo, in 2019.

Impairment and disposal of non-current assets

Segments by class of assets (in millions of Reais)	Fiscal Year Ended as of December 31,		
	2020	2019	2018
Property, plant and equipment and intangible assets			
Base Metals - Nickel	4,728	10,319	-
Coal	4,851	6,949	
Other assets	1,093	487	713
Impairment of non-current assets	10,672	17,755	713
Onerous contracts	-	987	1,527
Disposals of non-current assets	1,147	2,020	1,283
Impairment and write-offs of noncurrent assets	11,819	20,762	3,523

Impairment losses were mainly due to:

- **Base metals - Nickel: Vale Nouvelle-Calédonie S.A.S. ("VNC")** – Since 2019, the New Caledonian operation has experienced challenging issues, mainly in relation to production and processing of refined nickel, associated with the challenges imposed by the remote location of this asset. The Company started studies of alternatives for VNC, taking into account the operational and commercial options to improve VNC's short-term cash flows. Based on the revision of the business plans in 2019, the Company reduced the expected production levels of its refined nickel products for remaining useful life of the mine, resulting in an impairment loss of R\$ 10,319 million, recognized in the income for the year ended December 31, 2019.

In 2020, the Company started looking for a potential buyer and started studying the other options available to exit the operation. Due to the negotiations that took place during the year, VNC's assets and liabilities were classified as "held for sale", and measured at fair value resulting in the recognition of an impairment loss in the amount of R\$ 2,155 million in the income statement for the year ended December 31, 2020. With the recognition of this additional impairment, the carrying value of the cash-generating unit ("CGU") was reduced to zero as at December 31, 2020.

In December 2020, the Company signed a binding put option agreement for its interest in VNC for an immaterial amount to a consortium constituted in a new company called "Prony Resources", led by the current management and employees of VNC and supported by the Caledonian and French authorities with Trafigura as a non-controlling shareholder. Closing is expected for the first quarter of 2021.

The terms of the proposal take into account the financing needs to continue of VNC operations, including the commitment to invest in the conversion of the tailings deposition from wet to dry-stacking ("Project Lucy"). As a result, the Company recognized a loss in that amount due to the potential sale agreement, in the amount of R\$ 2,573 million (US\$ 500 million) in the income statement for the year ended December 31, 2020, totaling a loss of R\$ 4,728 million.

- **Coal: Moatize Mine, Mozambique** - In 2019, the Company recognized an impairment loss in the amount of R\$ 6,949 million, corresponding to the total assets of the coal CGU, mainly due to technical difficulties in the project and operation of the assets related to this CGU. In addition, the Company lowered its long-term price assumption for both metallurgical and thermal coal and, carried out a detailed review of the mining plan, leading to a significant reduction on the estimated marketable coal reserves. In addition, the Company tested for impairment the assets acquired during the year ended 2020 and recognized a loss of R\$ 745 million in the income statement for the year ended December 31, 2020.
- **Coal: Loan receivable, Nacala BV** - The Company has loans receivable from Nacala, which have been impacted by the change in the production curve of the Moatize mine, following the reduction in the expected volume of coal to be transported in the Nacala Logistical Corridor and, which has impacted CLN's projected cash flows. Therefore, the Company carried out an impairment test for the loan receivable, resulting in a loss of R\$ 4,106 million in fiscal year 2020. As of December 31, 2020, the carrying amount of the receivable is R\$ 5.800 million, after the impairment charge.

The assumptions subject to the most estimation uncertainty for the FVLCD calculation is the volume of coal transported. To illustrate this sensitivity, the carrying value would be fully impaired by a reduction of approximately 5 million tons per year (out of the total capacity of 22 million tons per year), considering the other constant assumptions.

- **Other assets: Biopalma** - In 2019, the Company reviewed the business plan for biological assets controlled by Biopalma, a company that cultivates palm oil plantation, which is the raw material for palm oil. This revision resulted in a reduction in Biopalma's expected operational capacity. The Company has also reviewed its long-term price

assumptions based on the market conditions at that time. Thus, the Company tested the CGU for impairment and an impairment loss of R\$ 489 million was recognized in the income statement for the year ended December 31, 2019.

In September 2020, the Company signed an agreement with Brasil Bio Fuels S.A. to sell its entire interest in Biopalma for an immaterial consideration. As a result of this agreement, a loss of R\$ 681 million was recognized in the income statement for the year 2020. Biopalma's divestment was completed in November 2020.

Net Financial Results

2020 x 2019:

As of December 31, 2020, the financial result, net totaled a loss of R\$ 24,140 million compared to a loss of R\$ 13,446 million as of December 31, 2019, representing an increase of R\$ 10,694 million, mainly due to:

- Financial expenses totaled R\$ 17,141 million in 2020 compared to R\$ 14,738 million in 2019, an increase of R\$ 2,403 million, mainly due to (i) increase of R\$ 2,563 million in the fair value of participatory debentures, whose measurement is realized through the quotation of these debentures quoted in the secondary market, (ii) increase of R\$ 1,010 million in the fair value of financial guarantees assigned in American currency and provided to certain affiliates and joint ventures, partially offset by (iii) lower expenses related to repurchase of bonds in the amount of R\$ 1,100 million.
- The effect of the derivatives' fair value represented a loss of R\$ 5,526 million in 2020 compared to a gain of R\$ 926 million in 2019, due to the following main programs:
 - Loans and financing protection program - the Company recognized a loss of R\$ 5,373 million in 2020 compared to a gain of R\$ 154 million in 2019. In these swap transactions, fixed or floating rates are paid in dollars and received remuneration in reais linked to the interest rates of the protected debts.
 - Cash flow protection program for the purchase of fuel oil, gasoil, Brent and freight - the Company recognized a loss of R\$ 496 million in 2020 compared to a gain of R\$ 158 million in 2019. In order to reduce the effect of fluctuations in the price of fuel oil when contracting and making available sea freight and, consequently, reducing the volatility of the Company's cash flow, operations were carried out to protect this input, through the contracting of options.
 - Base metals products and inputs protection program - the Company recognized a gain of R\$ 58 million in 2020 compared to a gain of R\$ 222 million in 2019.
- The Company recognized a loss of R\$ 789 million in 2020 in relation to monetary restatements indexed by inflation, compared to a loss of R\$ 1,870 million in 2019.
- The Company recognized an exchange loss of R\$ 2,606 million in 2020 compared to an exchange gain of R\$ 144 million in 2019, due to the depreciation of the real against the dollar.

2019 x 2018:

As of December 31, 2019, the financial result, net totaled a loss of R\$ 13,446 million compared to a loss of R\$ 18,058 million as of December 31, 2018. The reduction of R\$ 4,612 million, or 25.5%, is mainly due to:

- Financial income was R\$ 2,092 million in 2019 compared to the R\$ 1,549 million recorded in 2018, the increase refers to the Company's investments in an exclusive investment fund with immediate liquidity, the portfolio of which is comprised of repo operations and National Treasury Bonds (Letras Financeiras do Tesouro - "LFTs"), which are post-fixed securities issued by the Brazilian government.
- Financial expenses totaled R\$ 14,738 million in 2019 compared to R\$ 8,274 million in 2018, an increase of R\$ 6,464 million, mainly due to (i) increase of R\$ 3,816 million in the fair value of participatory debentures, due to the increase in its fair value, (ii) increase of R\$ 1,539 million in the fair value of the financial guarantees provided to certain associates and joint ventures, (iii) increase of expenses in the amount of R\$ 299 million, as a result of the adoption of IFRS 16 leases, partially offset by lower gross interest on loans and financing due to debt reduction.

The fair value effect of derivatives represented a gain of R\$ 926 million in 2019 compared to a loss of R\$ 1,006 million in 2018. The following are the derivative operations by program:

- Loans and financing protection program - the Company recognized a gain of R\$ 154 million in 2019 compared to a loss of R\$ 1,054 million in 2018. In these swap transactions, fixed or floating rates are paid in dollars and received remuneration in reais linked to the interest rates of the protected debts.
- Cash flow protection program for the purchase of fuel oil, gasoil and Brent - the Company recognized a gain of R\$ 158 million in 2019 compared to a gain of R\$ 16 million in 2018. In order to reduce the effect of fluctuations in the price of fuel oil when contracting and making available sea freight and, consequently, reducing the volatility of the Company's cash flow, operations were carried out to protect this input, through the contracting of options.
- Base metals products and inputs protection program - the Company recognized a gain of R\$ 222 million in 2019 compared to a loss of R\$ 99 million in 2018.
- The Company recognized a loss of R\$ 1,870 million in 2019 in relation to monetary restatements indexed by inflation, compared to a loss of R\$ 2,090 million in 2018.
- The Company recognized an exchange gain of R\$ 144 million in 2019 compared to an exchange loss of R\$ 8,237 million in 2018, the reduction is mainly due to the adoption of Net investment in foreign operations. Since January 1, 2019, exchange rate differences arising from some long-term loans payable to Vale International S.A. are recognized in other comprehensive income, under "Accumulated conversion adjustments", and will be reclassified from equity to profit(loss) at the time of the disposal or partial disposal of net investment.

Equity results and other results in associates and joint ventures

(in millions of Reais)	Fiscal Year Ended as of December 31,		
	2020	2019	2018
Equity of investments in associates and joint ventures	(555)	871	1,145
Samarco/Germano	(981)	(993)	(315)
Renova Foundation	(5,530)	(1,963)	(1,523)
Result on sale of investments	1,529	(599)	-
Others	97	-	-
Equity results and other results in associates and joint ventures	(5,436)	(2,684)	(693)

In the exercises analyzed, the main impacts related to equity results and other results in associates and joint ventures were as follows:

- During 2020, the Renova Foundation updated the premises used in the preparation of the estimate of the costs necessary for the execution of the 42 repair and compensation programs. This periodic review resulted in an additional provision of R\$ 5,530 million, which corresponds to the Company's proportional responsibility with Renova Foundation, compared to an additional provision of R\$ 1,963 million recognized in 2019;

- Due to the new safety requirements set by ANM, Samarco prepared a project for the de-characterization of the Germano dam, which was also built using the upstream raising method and has been inactive since the Fundão dam breach. Samarco prepared a project to de-characterization this dam, resulting in a provision for the de-characterization of this dam recognized by the Company in the amount of R\$ 993 million during 2019. During 2020, the Company recognized an additional provision of R\$ 136 million, equivalent to the proportion of its stake in Samarco of 50% of the variation of the estimated costs to carry out the project to de-characterize this structure;
- The Company had expenses in the amount of R\$ 845 million, R\$ 402 million and R\$ 315 million during the year 2020, 2019 and 2018, respectively, made available to Samarco and used to fund Samarco's working capital;
- In 2020, the Company recognized a gain of R\$ 885 million with the exercise of the option to purchase 8% of VLI shares held by Valeby BNDES Participações S.A, and now holds 29.6% of VLI's total shares;
- In December 2019, the Company entered into an agreement to sell its 25% stake in Henan Longyu, and as a result, this investment was classified as an asset held for sale and an impairment loss in the amount of R\$ 630 million was recognized in the income statement for the year ended 2019. In 2020, the Company completed the divestment and recognized a gain of R\$ 598 million due to the recycling of the cumulative translation adjustment.

Income taxes

On December 31, 2020, the Company recorded an income tax expense of R\$ 3,025 million, compared to revenue of R\$ 2,509 million on December 31, 2019. The effective rate differs from the statutory rate mainly by (a) tax benefit from interest on equity, (b) tax benefits mainly from northern operations (c) tax losses from unrecognized subsidiaries, and (d) exchange rate variation on loss stock abroad. When compared to 2019, the company recognized greater exchange variations related to the loss carryforwards and reduced the amount of unrecognized tax losses.

On December 31, 2019, the Company recorded income tax income of R\$ 2,509 million, compared to revenue of R\$ 966 million on December 31, 2018. The variation basically results from the negative pre-tax profit(loss) in 2019, due to the recording of the Brumadinho provisions.

Adjusted EBITDA

Management uses adjusted EBITDA to assess the contribution of each segment to performance and to support decisions on resource allocation. The Company's definition of adjusted EBITDA is operating income or loss plus dividends received and interest from associates and joint ventures, excluding the amounts charged as (i) depreciation, depletion and amortization and (ii) impairment and disposal of non-current assets.

The following table shows a reconciliation of adjusted EBITDA to net income (loss) from continuing operations for the years ended December 31, 2020, 2019 and 2018.

EBITDA (in millions of Reais)	Fiscal year ended on December 31,		
	2020	2019	2018
Net income (loss) attributed to Vale's stockholders	26,713	(6,672)	25,967
Net income (loss) attributable to noncontrolling interests	(1,810)	(2,025)	117
Net income (loss) from continuing operations	24,903	(8,697)	26,084

Depreciation, amortization and depletion	16,679	14,751	12,240
Income taxes	3,025	(2,509)	(966)
Financial results	24,140	13,446	18,058
EBITDA of the continued operations	68,747	16,991	55,416
Items to reconciled adjusted EBITDA			
Equity results and other results in associates and joint ventures	5,436	2,684	693
Dividends received and interest from associates and joint ventures	1,338	1,870	1,433
Impairment and disposal of non-current assets	11,819	20,762	3,523
Adjusted EBITDA from continuing operations	87,340	42,307	61,065

Analysis of equity variations on December 31, 2020, 2019 and 2018

Assets (in millions of reais)	12/31/2020	AV (%) ¹	12/31/2019	AV (%) ¹	12/31/2018	AV (%) ¹	Horizontal Analysis	
							2020 x 2019	2019 x 2018
							%	%
Current assets								
Cash and cash equivalents	70,086	14.7	29,627	8.0	22,413	6.6	136.6	32.2
Short-term investments	4,006	0.8	3,329	0.9	125	0.0	20.3	2,563.2
Accounts receivable	25,944	5.4	10,195	2.8	10,261	3.0	154.5	(0.6)
Other financial assets	1,707	0.4	2,449	0.7	1,558	0.5	(30.3)	57.2
Inventories	21,103	4.4	17,228	4.7	17,216	5.0	22.5	0.1
Recoverable taxes	2,646	0.6	3,719	1.0	5,526	1.6	(28.9)	(32.7)
Others	1,313	0.3	2,151	0.6	2,157	0.6	(39.0)	(0.3)
	126,805	26.5	68,698	18.6	59,256	17.3	84.6	15.9
Non-current assets								
Judicial deposits	6,591	1.4	12,629	3.4	6,649	1.9	(47.8)	89.9
Other financial assets	9,271	1.9	10,724	2.9	12,180	3.6	(13.5)	(12,0)
Recoverable taxes	5,670	1.2	4,853	1.3	5,020	1.5	16.8	(3,3)
Deferred income taxes	53,711	11.2	37,151	10.0	26,767	7.8	44.6	38.8
Others	3,380	0.7	2,348	0.6	1,015	0.3	44.0	131.3
	78,623	16.4	67,705	18.3	51,631	15.1	16.1	31.1
Investments	10,557	2.2	11,278	3.1	12,495	3.7	(6.4)	(9.7)
Intangibles	48,309	10.1	34,257	9.3	30,850	9.0	41.0	11,0
Property, Plant and Equipment	213,836	44.7	187,733	50.8	187,481	54.9	13.9	0.1
	351,325	73.5	300,973	81.4	282,457	82.7	16.7	6.6
Total assets	478,130	100.0	369,671	100.0	341,713	100.0	29.3	8.2

(1) In relation to the total assets.

Liabilities and stockholders' equity (in millions of reais)	12/31/2020	AV (%) ¹	12/31/2019	AV (%) ¹	12/31/2018	AV (%) ¹	Horizontal Analysis	
							2020 x 2019	2019 x 2018
							%	%
Current liabilities								
Suppliers and contractors	17,496	3.7	16,556	4.5	13,610	4.0	5.7	21.6
Loans, borrowings and leases	5,901	1.2	5,805	1.6	3,889	1.1	1.7	49.3
Other financial liabilities	9,906	2.1	5,658	1.5	6,213	1.8	75.1	(8.9)
Taxes payable	4,950	1.0	2,065	0.6	1,659	0.5	139.7	24.5
Settlement program ("REFIS")	1,769	0.4	1,737	0.5	1,673	0.5	1.8	3.8
Liabilities related to associates and joint ventures	4,554	1.0	2,079	0.6	1,120	0.3	119.0	85.6
Provisions	9,498	2.0	4,956	1.3	5,278	1.5	91.6	(6.1)
Liabilities related to Brumadinho	9,925	2.1	6,319	1.7	-	-	57.1	-
De-characterization of dams	1,981	1.3	1,247	0.3	-	-	58.9	-
Dividends payable	6,342	1.3	6,287	1.7	-	-	0.9	100.0
Others	3,516	0.7	3,097	0.8	1,843	0.5	13.5	68.0
	75,838	15.9	55,806	15.1	35,285	10.3	35.9	58.2
Non-current liabilities								
Loans, borrowings and leases	72,187	15.1	54,038	14.6	56,039	16.4	33.6	(3.6)
Participative stockholders' debentures	17,737	3.7	10,416	2.8	5,454	1.6	70.3	91.0
Other financial liabilities	23,967	5.0	7,206	1.9	5,701	1.7	232.6	26.4
Settlement program ("REFIS")	12,493	2.6	14,012	3.8	15,179	4.4	(10.8)	(7.7)
Deferred income taxes	9,198	1.9	7,585	2.1	5,936	1.7	21.3	27.8
Provisions	43,829	9.2	34,233	9.3	27,491	8.0	28.0	24.5
Liabilities related to Brumadinho	13,849	2.9	5,703	1.5	-	-	142.8	-
De-characterization of dams	9,916	2.1	8,787	2.4	-	-	12.8	-
Liabilities related to associates and joint ventures	6,228	1.3	4,774	1.3	3,226	0.9	30.5	48.0
Streaming transactions	10,419	2.2	8,313	2.2	8,886	2.6	25.3	(6.4)
Others	1,483	0.3	1,649	0.4	4,833	1.4	(10.1)	(65.9)
	221,306	46.3	156,716	42.4	132,745	38.8	41.2	18.1
Total liabilities	297,144	62.1	212,522	57.5	168,030	49.2	39.8	26.5
Stockholders' equity								
Equity attributable to Vale's stockholders	185,785	38.9	161,480	43.7	170,403	49.9	15.1	(5.2)
Equity attributable to noncontrolling interests	(4,799)	(1.0)	(4,331)	(1.2)	3,280	1.0	10.8	(232.0)
Total stockholder's equity	180,986	37.9	157,149	42.5	173,683	50.8	15.2	(9.5)
Total liabilities and stockholder's equity	478,130	100.0	369,671	100.0	341,713	100.0	29.3	8.2

(1) Relative to total liabilities and stockholders' equity.

Assets

Cash and cash equivalents

As of December 31, 2020, the balance of cash and cash equivalents totaled R\$ 70,086 million, compared to R\$ 29,627 million on December 31, 2019. The increase of R\$ 40,459 million or 136.6% is mainly due to the increase in operating cash generation in 2020, arising from higher average iron ore prices and the effect of the dollar appreciation compared to the real (R\$ 7,605 million).

As of December 31, 2019, the balance of cash and cash equivalents totaled R\$ 29,627 million, compared to R\$ 22,413 million on December 31, 2018. The increase of R\$ 7,214 million or 32.2% is mainly due to (i) the increase in operating cash generation due to higher average prices realized in the ferrous minerals segment and (ii) the decrease in the flow of debt payments.

Accounts receivable

As of December 31, 2020, the balance of accounts receivable totaled R\$ 25,944 million compared to R\$ 10,195 million on December 31, 2019. The increase of R\$ 15,749 million or 154.5% is due to the following factors: higher accrual revenues caused by higher iron ore prices during the year, mainly in December, when accrual sales totaled an approximate amount of R\$ 12,123 million and the exchange variation of customer balances in foreign currency with an effect of R\$ 1,745 million.

As of December 31, 2019, the balance of accounts receivable totaled R\$ 10,195 million, remaining in line with the balance of R\$ 10,261 million on December 31, 2018.

Inventories

As of December 31, 2020, the inventory balance totaled R\$ 21,103 million compared to R\$ 17,228 million on December 31, 2019. The increase of R\$ 3,875 million, or 22.5%, is mainly due to (i) the positive effect of the foreign exchange variation on inventories abroad and (ii) higher iron ore volume reflecting lower product sales along the supply chain resulting from the international inventory replenishment strategy.

As of December 31, 2019, the inventory balance totaled R\$ 17,228 million, remaining in line with the balance of R\$ 17,216 million on December 31, 2018.

Recoverable taxes

Current

As of December 31, 2020, the balance of recoverable taxes totaled R\$ 2,646 million compared to R\$ 3,719 million on December 31, 2019. The reduction of R\$ 1,073 million, or 28.9%, is basically due to the receipt of a settlement of a tax dispute related to income tax from Canadian operations.

As of December 31, 2019, the balance of recoverable taxes totaled R\$ 3,719 million compared to R\$ 5,526 million on December 31, 2018. The reduction of R\$ 1,807 million, or 32.7%, is due to use of PIS/COFINS credits to offset income tax on Brazilian operations.

Noncurrent

As of December 31, 2020, the balance of recoverable taxes totaled R\$ 5,670 million compared to R\$ 4,853 million on December 31, 2019. The increase of R\$ 817 million or 16.8% is mainly due to PIS/COFINS credits arising from the acquisition of fixed assets and recognition of R\$ 313 million in the result related to the exclusion of ICMS from the PIS/COFINS tax base, on which the company obtained a final court decision.

As of December 31, 2019, the balance of recoverable taxes totaled R\$ 4,853 million compared to R\$ 5,020 million on December 31, 2018. The reduction of R\$ 167 million or 3.3% is mainly due to the transfer to PIS/COFINS credits from current acquisitions of fixed assets.

Judicial deposits

As of December 31, 2020, the balance of judicial deposits totaled R\$ 6,591 million compared to R\$ 12,629 million on December 31, 2019. The reduction of R\$ 6,038 million or 47.89% is due to the use of judicial deposits related to the Brumadinho event, in the amount of R\$ 5,400 million to write off the respective liabilities as a result of the Global Settlement, signed in 2021.

As of December 31, 2019, the balance of judicial deposits totaled R\$ 12,629 million compared to R\$ 6,649 million on December 31, 2018. The increase of R\$ 5,980 million or 90% is mainly due to the judicial deposits made by the Company in 2019 in relation to the Brumadinho event (R\$ 5,976 million).

Deferred income taxes

As of December 31, 2020, the balance of deferred income taxes totaled R\$ 53,711 million compared to R\$ 37,151 million on December 31, 2019. The increase of R\$ 16,560 million or 44.6% is mainly due to the recognition of deferred income tax arising from a temporary difference in the provisions related to the Brumadinho event and fair value of financial instruments. .

As of December 31, 2019, the balance of deferred income taxes totaled R\$ 37,151 million compared to R\$ 26,767 million on December 31, 2018. The increase of R\$ 10,384 million or 38.8% is mainly due to the recognition of deferred income tax arising from a temporary difference in the provisions related to the Brumadinho event.

Intangibles

As of December 31, 2020, the balance of intangibles totaled R\$ 49,446 million compared to R\$ 34,257 million on December 31, 2019. The increase of R\$ 15,189 million, or 44%, is mainly due to the extension of the concessions to operate the Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória a Minas ("EFVM") for thirty years, changing the maturity from 2027 to 2057. After the signature, the Company recognized the intangible asset related to the right to use the EFC and EFVM.

As of December 31, 2019, the balance of intangibles totaled R\$ 34,257 million compared to R\$ 30,850 million on December 31, 2018. The increase of R\$ 3,407 million or 11% is mainly due to the acquisition of New Steel and the investments made to duplicate the Estrada de Ferro Carajás railway (concession), to meet the flow of the S11D project.

Property, Plant and Equipment

As of December 31, 2020, the balance of property, plant and equipment totaled R\$ 213,836 million compared to R\$ 187,733 million on December 31, 2019. The increase of R\$ 26,103 million or 13.9%

is due to the exchange impact, mainly of the assets of the Company's investees abroad expressed in dollars converted into reais.

As of December 31, 2019, the balance of property, plant and equipment totaled R\$ 187,733 million, remaining in line with the balance of R\$ 187,481 million on December 31, 2018. The write-offs, impairment and depreciation for the year were offset by additions and the adoption of IFRS 16.

Liabilities

Loans and borrowings

Current and noncurrent

As of December 31, 2020, the balance of loans and borrowings totaled R\$ 69,426 million compared to R\$ 52,625 million on December 31, 2019. The increase of R\$ 16,801 million or 32% is due mainly to the effect of the exchange rate variation.

As of December 31, 2019, the balance of loans and borrowings totaled R\$ 52,625 million compared to R\$ 59,928 million on December 31, 2018. The decrease of R\$ 7,303 million, or 12.2%, is due to payments, net of funding and the positive effect of the exchange rate variation.

Participative stockholders' debentures

As of December 31, 2020, the balance of participative stockholders' debentures totaled R\$ 17,737 million compared to R\$ 10,416 million on December 31, 2019, and R\$ 5,454 million December 31, 2018. The increase in the amount of debentures in 2020 and 2019, is mainly due to the variation in the market value of participatory debentures, resulting in an increase in the fair value of this financial instrument.

Other financial liabilities

Current

As of December 31, 2020, the balance of other financial liabilities totaled R\$ 9,906 million compared to R\$ 5,658 million on December 31, 2019. The increase of R\$ 4,248 million or 75.1% is due to the following factors: (i) short-term portion of the obligations related to the extension of the concessions to operate the Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória a Minas ("EFVM") in the amount of R\$ 1,088 million; (ii) devaluation of the exchange rate in the period by 29%, generating a negative impact on the position of liabilities related to derivative financial instruments.

As of December 31, 2019, the balance of other financial liabilities totaled R\$ 5,658 million compared to R\$ 6,213 million on December 31, 2018. The reduction of R\$ 555 million or 9% is due to the following factor: reduction in exchange rate and interest on the loan in foreign currency with a company controlled by Mitsui - related party, which holds a 15% interest in Vale Moçambique S.A., holder of the loan (R\$ 441 million).

Noncurrent

As of December 31, 2020, the balance of other financial liabilities totaled R\$ 23,967 million compared to R\$ 7,206 million on December 31, 2019. The increase of R\$ 16,761 million or 232.6% is due to the following factors: (i) long-term portion of the obligations related to the extension of the concessions to operate the Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória a Minas ("EFVM") in the amount of R\$ 10,928 million; (ii) devaluation of the exchange rate in the period by 29%, generating a

negative impact on the position of liabilities related to derivative financial instruments; (iii) increase in the fair value of financial guarantees for certain associates and joint ventures (R\$ 2,442 million).

As of December 31, 2019, the balance of other financial liabilities totaled R\$ 7,206 million compared to R\$ 5,701 million on December 31, 2018. The increase of R\$ 1,505 million is mainly due to increase in the fair value of financial guarantees for certain associates and joint ventures (R\$ 1,472 million).

Deferred income taxes

As of December 31, 2020, the balance of deferred income taxes totaled R\$ 9,198 million compared to R\$ 7,585 million on December 31, 2019. The increase of R\$ 1,613 million or 21.3% is mainly due to the effect of the appreciation of the dollar against the real.

As of December 31, 2019, the balance of deferred income taxes totaled R\$ 7,585 million compared to R\$ 5,936 million on December 31, 2018. The increase of R\$ 1,649 million or 27.8% is due to the effect of the appreciation of the dollar against the real and the recording of deferred income tax on the capital gain from the acquisition of New Steel Global N.V. ("New Steel").

Taxes payable

As of December 31, 2020, the balance of taxes payable totaled R\$ 4,950 million compared to R\$ 2,065 million on December 31, 2019. The increase of R\$ 2,885 million, or 139.7%, arises from income tax payable due to improvement in operating profit(loss).

As of December 31, 2019, the balance of taxes payable totaled R\$ 2,065 million compared to R\$ 1,659 million on December 31, 2018. The increase of R\$ 406 million, or 24.5%, is due to an increase in the current income tax base.

Liabilities related to associates and joint ventures

As of December 31, 2020, the balance of the provision related to associates and joint ventures totaled R\$ 10,782 million compared to R\$ 6,853 million on December 31, 2019. The increase of R\$ 3,929 million refers mainly to the recognition of the additional provision of R\$ 5,530 million for Renova Foundation.

As of December 31, 2019, the balance of the provision related to associates and joint ventures totaled R\$ 6,853 million compared to R\$ 4,346 million on December 31, 2018. The increase of R\$ 2,507 million refers mainly to the additional provision of R\$ 1,963 million to Renova Foundation.

Provisions

Current and noncurrent

As of December 31, 2020, the balance of provisions totaled R\$ 53,327 million compared to R\$ 39,189 million on December 31, 2019. The increase of R\$ 14,138 million, or 36.07%, is due to the following factors: (i) recognition of the provision in the amount of R\$ 2,598 million related to the sale of VNC; (ii) increase in the asset retirement obligations as a result of the revision in cash flow estimates (R\$ 5,968 million); (iii) reduction employee postretirement obligations (R\$ 3,471 million).

As of December 31, 2019, the balance of provisions totaled R\$ 39,189 million compared to R\$ 32,769 million on December 31, 2018. The increase of R\$ 6,420 million or 20% is due to the following factors: (i) provision of onerous contracts related to costs with long-term contracts in the Midwest system for river transportation and port service, which have a guaranteed minimum volume (R\$ 1,003 million),

(ii) revision in cash flow estimates on asset retirement obligations (R\$ 3,585 million), (iii) reduction in the pension fund's discount rate (R\$ 1,321 million) and (iv) change of prognosis to probable civil lawsuit related to indemnity for material damages due to the fall of ship unloaders from the Praia Mole Terminal - ES (R\$ 515 million).

Liabilities related to Brumadinho

Current and noncurrent

As of December 31, 2020, the balance of liabilities related to Brumadinho totaled R\$ 23,774 million compared to R\$ 12,022 million as of December 31, 2019. The increase of R\$ 11,752 million refers mainly to (i) the recognition of the additional provision of R\$ 19,924 million to meet obligations under the Global Agreement, (ii) recognition of provisions in the amount of R\$ 1,331 million related to geotechnical safety actions of the remaining structures at the Córrego do Feijão mine, partially offset by disbursements occurred in 2020 (R\$ 9,551 million).

For more information on the liabilities related to Brumadinho, see item 10.3 of this Reference Form.

De-characterization of dams

Current and noncurrent

As of December 31, 2020, the balance of de-characterization of dams totaled R\$ 11,897 million compared to R\$ 10,034 million as of December 31, 2019. The increase of R\$ 1,863 million refers mainly to the recognition of R\$ 3,175 million in provisions to meet obligations in relation to the de-characterization of upstream dams, of which R\$ 1,900 million due to the evolution of engineering projects and changes in planned containments and R\$ 1,275 million referring to other structures identified by the Company that meet the criteria to be also de-characterized, partially offset by disbursements occurred in 2020 (R\$ 1,521 million).

For further information on the liabilities related to the de-characterization of the dams, see item 10.3 of this Reference Form.

Analysis of changes in cash flows for the years ended December 31, 2020, 2019 and 2018

The following table presents the values related to the consolidated cash flow statements for the fiscal years ended December 31, 2020, 2019, and 2018:

(in millions of Reais)	Fiscal Year Ended as of December 31,		Fiscal Year Ended as of December 31,		2018
	2020	Variation %	2019	Variation %	
Income (loss) before income tax	27,928	(349.2)	(11,206)	(144.6)	25,118
Adjustments to reconcile the net income for the year	82,504	7.0	77,090	123.4	34,514
Changes in assets and liabilities	(20,895)	348.4	(4,660)	65.2	(2,821)
Cash generated by the operations	89,537	46.2	61,224	7.8	56,811
Resources provided by operating activities	(14,329)	2.8	(13,942)	56.8	(8,891)
Net cash provided by operating activities	75,208	59.1	47,282	(1.3)	47,920
Net cash used in investing activities	(24,234)	(8.7)	(26,540)	2,772.3	(924)
Net cash used in financing activities	(18,041)	21.2	(14,884)	(63.3)	(40,529)
Net cash used in discontinued operations	-	-	-	(100.0)	(157)
Increase in cash and cash equivalents	32,933	462.2	5,858	(7.2)	6,310
Cash and cash equivalents at the beginning of the year	29,627	32.2	22,413	56.5	14,318

Effect of exchange rate changes on cash and cash equivalents	7,605	460.8	1,356	(37.5)	2,170
Effects of disposals of subsidiaries, net of cash and cash equivalents	(79)	(100.0)	-	100.0	(385)
Cash and cash equivalents at end of the year	70,086	136.6	29,627	32.2	22,413

Net cash provided by operating activities

Cash flow from operating activities increased 59%, from R\$ 47,282 million in 2019 to R\$ 75,208 million in 2020, mainly due to: (i) higher cash generated from operations of R\$ 28,313 million, strongly impacted by an increase in accounts receivable of R\$ 14,095 million, and higher average realized prices of iron ore.

Cash flow from operating activities totaled R\$ 47,282 million in 2019, in line with the amount of R\$ 47,920 million in 2018.

Net cash used in investing activities

The cash flow used in the Company's investment activities amounted to R\$ 24,234 million in 2020, compared to R\$ 26,540 million for the same period in 2019. In 2020, investments in property, plant and equipment and intangible assets totaled R\$ 22,726 million, R\$ 7,952 million higher than in 2019, mainly due to (i) greater replacement and acquisition of equipment and (ii) investments in the tailings filtration plants. In 2020, the Company made short-term investments and investments funds applications, net of redemptions in the amount of R\$ 1,247 million compared to R\$ 3,408 million invested in 2019.

The cash flow used in the Company's investment activities totaled R\$ 26,540 million in 2019, compared to R\$ 924 million in the same period in 2018, the increase is mainly due to (i) the acquisition of the subsidiaries Ferrous Resources Limited and New Steel Global N.V. (R\$ 3,513 million), (ii) judicial deposits related to Brumadinho (R\$ 6,169 million) and (iii) financial investments in SELIC Treasury (R\$ 3,408 million).

Net cash used in financing activities

Cash flow from financing activities for the year ended December 31, 2020 amounted to R\$ 18,041 million, compared to R\$ 14,884 million in 2019, an increase mainly due to (i) payment of dividends and interest on capital paid to stockholders (R\$ 18.637 million), partially compensated for (ii) lower borrowing and payments of net loans and financing (R\$ 816 million).

Cash flow from financing activities for the year ended December 31, 2019 amounted to R\$ 14,884 million, compared to R\$ 40,529 million in 2018, mainly due to (i) non-payment of the remuneration to stockholders in 2019 as a result of the suspension of the stockholders' remuneration policy after the Brumadinho event, and (ii) lower borrowing and payments of net loans and financing (R\$ 9,988 million).

10.2 – The officers should comment on:

a. results of the issuer's operations, especially:

i. description of any key components of revenue

Vale's revenue depends, among other factors, on the volume of production at its facilities and the prices for its products. A production report is available on the Company's website (www.vale.com).

The net operating revenues related to each business segment are detailed below:

Sales revenue, net by product (in millions of Reais)	Fiscal Year Ended on December 31,						Change (2020 x 2019) (2019 x 2018)	
	2020	%	2019	%	2018	%	%	%
Ferrous minerals	167,365	80.3%	118,767	79.9%	102,842	76.5%	40.9%	15.5%
Iron ore	142,478	68.3%	92,504	62.2%	75,056	55.8%	54.0%	23.2%
Pellets	22,043	10.6%	23,446	15.8%	24,389	18.1%	-6.0%	-3.9%
Manganese and ferroalloys	1,177	0.6%	1,112	0.7%	166	0.1%	5.8%	569.9%
Others	1,667	0.8%	1,705	(1.1%)	1,737	1.3%	-2.2%	-1.8%
Base metals	37,233	17.9%	24,351	16.4%	24,527	18.2%	52.9%	-0.7%
Nickel and others	25,877	12.4%	16,845	11.3%	16,855	12.5%	53.6%	-0.1%
Copper	11,356	5.4%	7,506	5.0%	7,672	5.7%	51.3%	-2.2%
Coal	2,431	1.2%	4,005	2.7%	6,025	4.5%	-39.3%	-33.5%
Others	1,500	0.7%	1,517	1.0%	1,089	0.8%	-1.1%	39.3%
Net operating revenue	208,529	100.0%	148,640	100.0%	134,483	100.0%	40.3%	10.5%

The following table summarizes, for the periods indicated, the distribution of Vale's net operating revenues based on the geographical location of its customers.

(in millions of Reais)	Fiscal Year Ended on December 31,					
	2020	%	2019	%	2018	%
North America	6,574	3.2	8,097	5.4	7,346	5.5
USA	5,336	2.559	5,271	3.546	4,937	3.7
Canada	1,238	0.594	2,826	1.901	2,409	1.8
South America	16,820	8.1	15,718	10.6	14,849	11.0
Brazil	14,959	7.2	13,196	8.9	11,860	8.8
Others	1,861	0.9	2,522	1.7	2,989	2.2
Asia	149,635	71.8	95,786	64.4	79,825	59.4
China	121,193	58.1	72,405	48.7	56,283	41.9
Japan	11,460	5.5	10,272	6.9	10,066	7.5
South Korea	6,704	3.2	5,070	3.4	4,772	3.5
Taiwan	3,034	1.5	3,763	2.5	1,882	1.4
Others	7,244	3.5	4,276	2.9	6,822	5.1
Europe	27,676	13.3	20,492	13.8	22,374	16.6
Germany	8,604	4.1	6,653	4.5	6,058	4.5
France	1,343	0.6	2,038	1.4	2,412	1.8
United Kingdom	3,380	1.6	660	0.4	1,147	0.9
Italy	1,401	0.7	1,408	0.9	2,029	1.5
Others	12,948	6.2	9,733	6.5	10,728	8.0
Other countries	7,824	3.8	8,547	5.8	10,089	7.5
Net operating revenue	208,529	100.0	148,640	100.0	134,483	100.0

Iron ore and pellets

Iron ore and iron ore pellets are priced based on a wide range of quality levels and physical characteristics.

Price differences arise from a number of factors, such as the iron content of the product, its contaminants, such as silica, alumina and phosphorus, the granulometry of the product, the

beneficiation processes required to produce the desired end product, the moisture degree, the shipping mode and the pricing time system. In addition, usually, for the iron ore pellets, contractual premiums on the price index are traded on a quarterly basis.

Demand for iron ore and iron ore pellets is driven by global demand for crude carbon steel. Demand for carbon steel, in turn, is strongly influenced by real estate, infrastructure construction and global industrial production. Demand from China has been the main driver of world demand and prices.

In 2020, the average *Platts* IODEX 62% iron ore price reference index was US\$ 108,9/t, up 17% from 2019.

The 2020 was a year marked by the demand volatility due to the COVID-19 pandemic, which has impacted market dynamics. Steel production in China reached a record 1,065 Mt in 2020, representing an 7% increase in the annual basis, with strong performance in the second semester of 2020, driven mainly by strong stimulus directed by the government towards economic recovery. On the other hand, steel production (excluding China) decreased by 8% in 2020, totalizing 776 Mt, due to the decrease in demand and the interruption of the entire industry supply chain. Developed economies were the hardest hit with steel production, decreased by 11% in 2020.

The average of the MB65% index was US\$ 122.3/dmt in 2020, 17% above 2019, following the trend of the reference price.

Vale's iron ore prices are grounded in a variety of price option that are usually based on spot indexes for the specification of prices exercised by clients. Final prices may be based on current spot indexes and average prices for specific periods.

In cases where the products are priced before the final price is determinable at the time of delivery, the sale is recognized based on a provisional price with a subsequent adjustment reflecting the final price.

The average realized price of iron ore in the fiscal year ended on December 31, 2020 was 33.3% and 62.2% higher than the average prices practiced in 2019 and 2018, respectively.

The average realized price of pellets, in the fiscal year ended on December 31, 2020, was 1.3% lower than the average prices practiced in 2019 and 15.7% higher than 2018, respectively.

Manganese and ferroalloys

The prices of manganese ore and ferroalloys are mainly influenced by trends in the steel market. The prices of ferroalloys are also influenced by the prices of its main inputs, such as manganese ore, energy and coke. Manganese ore sales are based on the *spot* market or calculated on a monthly basis. Ferroalloy prices are established on a weekly basis.

Nickel

Nickel is a metal traded on the London Metal Exchange (LME) and Shanghai Futures Exchange (SHFE) and is mainly used in the production of stainless steel. Most nickel products are priced using a discount or a premium to the LME price, depending on the technical and physical characteristics of the product.

Nickel market demand is heavily affected by the production of stainless steel, which represented 70% of consumption in 2020 (68% and 68% in 2019 and 2018, respectively). In 2020, the stainless-steel nickel market demand has decreased 0.6% and increased 4% regarding the demand in 2019 and 2018, respectively.

The average realized price of nickel in the fiscal year ended on December 31, 2020 was 8.7% and 11.8% higher than the average prices practiced in 2019 and 2018, respectively.

Vale maintains short-term fixed-volume contracts with customers for most of its expected annual nickel sales. These contracts, together with its sales to non-stainless-steel applications (alloy steel, high nickel alloys, galvanizing and batteries), provide stable demand for a significant portion of its annual production.

Copper

Copper prices are determined on the basis of: (a) copper metal prices in final markets, such as the LME, SHFE and COMEX; and (b) for intermediate products, such as copper concentrate (which represents the majority of the company's sales) and copper anode, treatment and refining rates are negotiated with each client. According to a pricing system known as MAMA (month after month of arrival), sales of copper concentrate and anode are provisionally set at the time of shipment, and the final prices are set based on the LME at a future time, typically one to three months after product shipping.

Global demand for refined copper closed the year 1% below the year of 2019 and 1.6% below 2018. China was responsible for approximately 54% of world consumption in 2020, with the predominant use of copper in the country in the construction and electrical sectors. Chinese demand returned rapidly after the pandemic of COVID-19 was contained in the country and then expanded. Construction and manufactory activity recovered completely in March and have remained in expansion ever since. This led the refined imports to reach record levels, even as domestic production of refined goods continued to expand.

The average realized price of copper in the fiscal year ended on December 31, 2020 was 17.0% and 4.0% higher than the average prices practiced in 2019 and 2018, respectively.

Coal

The demand for metallurgical coal is driven by the demand for steel, especially in Asia. The demand for thermal coal is directly related to the consumption of electricity, which will continue to be driven by global economic growth, particularly in emerging economies, but, at the same time, impacted by greater emissions restrictions. Currently, metallurgical coal prices are established according to the spot reference indexes or established based on the quarterly average of the index and/or quarterly benchmark system for certain contents. The prices of thermal coal are set in spot negotiations and/or through reference indexes and annual contracts.

In 2020, the average for seaborne metallurgical coal was US\$ 124/t, 30% below the year 2019. The price reduction was mainly related to the impact of COVID-19, with steel production cuts and extended regional blocks being applied in most demand regions outside China. From October 2020 on, China started a mil ban of the Australian coal through China, resulting in the PLV FOB Australia reference index falling to a minimum of US\$ 97.3/t for the first time since 2016. To replace the loss of tons from Australia, China has increased the acquisition of metallurgical coal from Canada, USA and Russia. However, the limited inventory available of the Ex-Australia mining companies and the strong demand for metallurgical coal from China caused the CFR China index to reach a high of US\$ 202/t at the end of December 2020.

In thermal coal, the average for the Richard Bay index was \$65.3/t in 2020, down 9% from 2019. The main factors driving the price reduction were due to the uncertainties for second quarter of 2020 caused by the COVID-19 pandemic, impacting the industrial demand and energy generation, as well as affecting the producing regions and aggravating the expected high volatility of prices. By the end of 2020 a slight recovery of prices was seen, driven by strong demand for refueling amid a colder

winter, especially from China, given a tighter domestic supply, and the imminent threat of supply disruptions due to the rains caused by La Niña.

ii. Factors that materially affected the operating results

Factors that affected the operational results in 2020 when compared to 2019, refer mainly to the increase in revenue from products sale in relation to the previous year by R\$ 59,889 million, details of which are described in section i) above and in section 10.1 (h) - *Net operating revenue*, and by cost of products sold higher than R\$ 14,731 million in relation to the year of 2019, explanation of which is detailed in section 10.1 (h) - *Cost of products sold and services provided*. Additionally, the losses by impairment and disposals of non-current assets in the fiscal year were of R\$ 8,943 million less in 2020 when compared to 2019. For details about the impairment and other write-offs in each year, see section 10.1 (h) - *Impairment and disposal of non-current assets*.

Factors that affected the operational results in 2019 when compared to 2018, refer mainly to the acknowledgment of provisions and liabilities related to Brumadinho event of R\$ 28,818 million in 2019, details of which are described in section 10.3, and for impairment and disposals of non-current assets over R\$ 17,239 million in 2019 when compared to 2018. For details about the impairment and other write-offs in each year, see section 10.1 (h) - *Impairment and disposal of non-current assets*.

b. Variations in revenues attributable to changes in prices, exchange rates, inflation, changes in volumes and the introduction of new products and services

Exchange rate variations

	2020	Variation (%)	2019	Variation (%)	2018
Average Exchange Rates (Real/Dollar)	5.16	30.7%	3.95	7.9%	3.66
Closing Exchange Rates (Real/Dollar)	5.20	28.9%	4.03	4.0%	3.87

Most of Company's revenues are denominated in US Dollars. During 2020, the US Dollar appreciated 30.7% against the Brazilian currency (2019 – 7.94%; 2018 – 14.51%), contributing with higher revenues of R\$ 46,831 million in 2020 (2019 – R\$ 10,139 million; 2018 – R\$ 15,786 million).

Variations in Price and Volumes

The following table summarizes the average sale price of the main products for the periods indicated.

	Fiscal Year Ended on December 31,		
(\$/metric ton)	2020	2019	2018
Iron ore	561	345	244
Pellets	706	543	431
Manganese	610	546	670
Ferroalloys	5,064	4,181	4,302
Nickel	79,473	55,690	49,944
Copper as a nickel by-product	30,236	21,321	19,974

Copper	30,682	21,408	20,654
Coal			
<i>Thermal coal</i>	<i>277</i>	<i>233</i>	<i>312</i>
<i>Metallurgical Coal</i>	<i>554</i>	<i>676</i>	<i>696</i>

The following table summarizes the average volume sold of main products for the periods indicated.

(in thousand metric tons)	Fiscal Year Ended on December 31,		
	2020	2019	2018
Iron ore	254,012	267,992	307,433
Pellets	31,211	43,199	56,592
Manganese	1,378	1,063	1,572
Ferroalloys	67	127	141
Nickel	211	206	236
Copper as a nickel by-product	99	122	105
Copper	247	244	274
Coal			
<i>Thermal coal</i>	<i>2,953</i>	<i>4,356</i>	<i>5,393</i>
<i>Metallurgical Coal</i>	<i>2,914</i>	<i>4,427</i>	<i>6,240</i>

The Company's revenues are mainly affected by the exchange rate fluctuation, changes in prices as well as changes in the volumes of products it commercializes. Several factors influenced the prices and the demand for the different products of the Company, such as: (a) iron and impurities content of products and size of the particles (for iron ore and pellets), (b) tendencies of the market of carbon steel and price of the main inputs (for manganese and ferroalloys), (c) demand for steel, especially in Asia, and the supply of coal, especially in the Chinese production, (d) discount or premium in relation to the price negotiated on the London Metal Exchange (LME) and (e) price of copper metal in final markets (for copper).

Ferrous minerals - Revenues of ferrous minerals segment was R\$ 167,365 million compared to R\$ 118,767 million in 2019, due to the higher average realized prices of iron ore reflecting the increase in the *Platts IODEX 62%* iron ore price reference index which was 16.6% higher than 2019 (R\$ 25,732 million), a positive impact of exchange rate (R\$ 37,906 million), partially offset by the lower volumes sold of ferrous minerals (R\$ 14,256 million).

The sales volume on iron ore fines lowered 5.2% in 2020, when compared to 2019, due to the lower production and following Company's strategy of rebuilding operational inventories. After the breach of the Brumadinho dam, the Company's iron ore production capacity was significantly impacted by the shutdown of some operations. In 2020, the Company partially resumed production in all iron ore fine operations that were halted in 2019. The sales volume on iron ore pellets lowered 27.8% when compared to 2019, due to the lower availability of pellet feed, mainly from Itabira Complex, due to the lower demand from the market.

In 2019, the revenues of ferrous minerals segment was R\$ 118,767 million compared to R\$ 102,842 million in 2018, due to the higher average realized prices of iron ore reflecting the increase in the *Platts IODEX 62%* iron ore price reference index which was 34.5% higher than 2018 (R\$ 21,487 million), a positive impact of exchange rate (R\$ 7,745 million), partially offset by the lower volumes sold of ferrous minerals (R\$ 15,887 million).

Base Metals – Revenues of base metals segment totalized R\$ 37,233 million in 2020, an increase of R\$ 12,882 million compared to 2019, driven by higher sale prices of nickel (R\$ 1,336 million) due to the positive effect of the nickel revenue hedge program, copper as a by-product of nickel and PGMs (R\$ 2,903 million) and the positive impact of the exchange rate (R\$ 7,673 million). Nickel sales volume increased 5 million metrical tons in 2020, when compared to 2019 (R\$ 387 million).

In 2019, revenue of base metals segment remained in line when compared to 2018, totalizing R\$ 24,351 million in 2019 and R\$ 24,527 million in 2018. In 2019, the lower volumes sold of nickel and copper (12.7% and 10.9%, respectively), were due to the decrease of production in Company's operations, as a result of scheduled and unscheduled maintenance at refineries in the North Atlantic and Asia, and the temporary stops at the Sossego and Onça Puma processing plants. This reduction was partially compensated by the higher average nickel sale prices realized, reflecting the 2.9% increase for 2018.

Coal – Revenues of the coal segment totalized R\$ 2,431 million in 2020, compared to R\$ 4,005 million in 2019, mainly due to the lower sales volumes of thermal and metallurgical coal (R\$ 1,774 million) and lower sales prices (R\$ 1,052 million), as a result of the deterioration in market conditions, partially offset by the positive impact of the exchange rate (R\$ 1,252 million).

In 2019, revenues of the coal segment decreased R\$ 2,020 million when compared to 2018, mainly due to the lower sales volumes of thermal and metallurgical coal (R\$ 1,709 million) and lower sales prices for thermal and metallurgical coal (R\$ 746 million), as a result of the deterioration in market conditions, partially offset by the positive impact of the exchange rate (R\$ 435 million).

Variations in the inflation rates

The Company's revenues are not significantly affected by inflation rates, and the main variations in operational income is attributable to price changes, exchange rate and volumes changes.

c. Impact of inflation, price variations of main inputs and products, exchange rate and interest rates on operating results and the Vale's financial result, when relevant

Exchange rate variations

Company's results are affected in several ways by changes in the Real currency exchange rates. Exchange variations by the end of fiscal year influence the financial results, while the average exchange rate affects the operating performance.

Company's cash flow is subject to the volatility of several currencies, since the prices of its products are predominantly indexed to US Dollar, while a significant part of the costs, expenses and investments are indexed to other currencies, mainly Reais and Canadian Dollars.

Company hires hedge operations to protect its cash flow of market risk related to its debts – mainly the exchange risk. Hedge operations cover great part of the debts in Reais and Euros. Swap and term operations are used to convert debts in Reais and Euros to US Dollars, seeking similar flows to the debt ones according to the market liquidity conditions.

Hedge instruments with shorter maturities are renegotiated throughout time so that their final maturity coincides – or becomes closer – to the final maturity of debts. In each settlement date, results from swap and term operations partially compensate the impact of the exchange rate on the Company's debt, contributing to stabilize cash disbursements in US dollars.

Interest Rate

Vale is exposed to the risk of interest rates for loans and financings. Debt tied to interest rates in US Dollars consists mainly of loans, including export prepayment operations, loans from commercial banks and multilateral organizations. In general, these debts are indexed to the LIBOR (London Interbank Offered Rate). The floating rate of its debt expressed in Brazilian *reais* includes debentures, loans obtained from the BNDES, fixed assets and financing for the purchase of services in the Brazilian market. The interest on these obligations is tied primarily to the IPCA (Broad Consumer Price Index), the reference interest rate on the Brazilian interbank market and the TJLP (Long Term Interest Rate).

In July 2017, the UK Financial Conduct Authority (FCA), which is the financial regulator in the United Kingdom, announced the cease of the LIBOR rate by the end of 2021. In March 2021, the FCA decided to postpone the discontinuation of certain USD LIBOR settings to 30 June 2023. The company is exposed, through its debt agreements, to the rates that will be provided by the administrator until the postponed deadline. Currently, around 25% of Vale's debt is linked to LIBOR. The company has been monitoring the authorities' announcements and the evolution of discussions regarding the substitute rate, aiming to be prepared for the transition. Any adjustments on contracts and systems that might be necessary throughout the process are being mapped and will be addressed in due time.

The Company uses swap operations to convert a large part of this debt to fixed rates in US dollars. On December 31, 2020, before *swap* operations, 11% of the debt was in reais and the remaining 89% was in other currencies. On December 31, 2019, before *swap* operations, 19% of the debt was in reais and the remaining 81% was in other currencies. On December 31, 2018, before *swap* operations, 23% of the debt was in reais and the remaining 77% was in other currencies.

On December 31, 2020, approximately 34.0% of debt was tied to the floating interest rate, compared to around 43.1% and 35.7% on December 31, 2019 and 2018, respectively.

Price of main inputs

Fuel oil and gas costs are an important component of Vale's production cost and represented 4.9% of its total cost of products sold in the fiscal year ended December 31st, 2020, 6.6% in 2019 and 7.0% in 2018. Expenses with electricity account for 3.7% of total cost of products sold in the fiscal year ended on December 31, 2020; 4.0% in 2019 and 4.1% in 2018.

Vale seeks to disclose as much information as possible about its views on the various markets where it operates, its guidelines, strategies and its implementation, in order to provide capital market participants with sound basis for their expectations regarding the Company's performance in the medium and long term.

10.3 – The officers should comment on the relevant effects that the events below have caused or are expected to cause on the issuer's financial statements and results:

a. Introduction or disposal of operating segment

The Company currently conducts its coal operations in Mozambique, through its subsidiary Vale Moçambique S.A. ("Vale Moçambique"). Vale also has a 50% stake in the Nacala Logistics Corridor, which transports coal produced in the Moatize mine to ports.

On January 20th, 2021 (subsequent event), the Company signed a *Heads of Agreement (HoA)* with Mitsui, both parties to structure Mitsui's exit from Vale Moçambique S.A. and the Nacala Logistics Corridor ("NLC"). Currently, Mitsui holds a non-controlling interest of 15% in Vale Moçambique and a 50% interest in NLC.

The HoA determines that Vale will acquire Mitsui's stake in the mine and logistics assets for an immaterial consideration and will undertake of the Nacala Corridor Project Finance in full, which is approximately R\$ 12,992 million (US\$ 2,500 million) outstanding balance at December 31, 2020. In case of closing the transaction, Vale will also control NLC and, therefore, consolidate its assets and liabilities.

In addition, the Company informed the market its divestiture intention in the coal segment and, therefore, the Company will assess whether this segment would meet the criteria to be classified as a discontinued operation in future financial statements.

The parties expect to conclude the transaction in 2021, which is subject to the execution of the definitive agreement and usual precedent conditions.

There were no introduction or disposal of operating segment in the closed fiscal years of 2018 and 2019.

This transaction is in line with the Company focus on prioritizing its businesses core and its ESG schedule, committed to becoming carbon neutral by 2050 and reducing 33% of its scope 1 and 2 emissions by 2030.

b. constitution, acquisition or disposal of equity interest

Main Acquisitions and constitutions

Boston Electrometallurgical Company ("Boston Metal")

In February 2021 (subsequent event), the Company made an investment of R\$ 33 million (US\$ 6 million) in Boston Metal to acquire a minority interest and to promote the development of a technology focused on the reduction of carbon dioxide on the steel production. Boston Metal has a diverse shareholding structure with includes venture capital funds, mining companies and private investors.

Project West III

In October 2020, Company approved the incorporation of a joint venture with Ningbo Zhoushan Port Company Limited ("Ningbo Zhoushan Port"), to build and operate the project to expand the Shulanghu Port facilities, located in China. The project secures strategic port capacity in China to further Vale's shipping and distribution costs optimization.

Vale will own 50% of the joint venture and Vale's capital contribution to the project is estimated to range from R\$ 600 million (US\$ 110 million) to R\$ 900 million (US\$ 160 million). The construction of the project, which is expected to take up to three years, will start after both parties obtain the anti-trust and other regulatory approvals in China.

Minerações Brasileiras Reunidas S.A.

In December 2019, the Company purchased an additional 36.4% interest in Minerações Brasileiras Reunidas S.A. ("MBR") held by its related party, for the total consideration of R\$ 3,309 million. Following the completion of the transaction, the Company holds 98.3% of MBR's share capital. Since this transaction did not result in a change of control for the Company, the impact of R\$ 1,410 million, arising from the purchase of additional shares was recognized in the Company's Stockholders' Equity as "Acquisitions and disposal of noncontrolling interest". In 2020, the Company purchased the remaining interest in MBR for a total consideration of R\$ 592 million, therefore, the Company holds 100% of MBR's share capital as at December 31, 2020.

Ferrous Resources Limited

In August 2019, the Company acquired 100% of the share capital of Ferrous Resources Limited ("Ferrous"), a company that owned iron ore mines nearby some of the Company's operations in Minas Gerais, Brazil for cash consideration of R\$ 1,986 billion (US\$ 525 million). Ferrous has been acquired to gain access to additional reserves for the Company.

New Steel Global N.V.

In January 2019, the Company acquired 100% of the share capital of New Steel Global N.V. ("New Steel") and gained its control for the total cash consideration of R\$ 1,884 million. New Steel is a company that develops processing and beneficiating technologies for iron ore through a completely dry process.

The consideration paid is mainly attributable to research and development projects for processing of iron ore with lower carbon dioxide. The intangible assets are not subject to amortization until the operational phase is reached, which is expected to start on 2022. Instead, the Company are tested for impairment annually, or more frequently when a trigger for impairment has been identified.

Main investment disposals and asset sales

VLI S.A.

In December 2020, BNDES Participações S.A. ("BNDESPar"), fully exercised its option contained in the Call Option Contract for shares issued by VLI S.A. ("VLI"). In this contract, BNDESPar was granted call options on VLI shares held by Vale of up to 8% of VLI's capital stock.

With this exercise of this option, Vale received R\$ 1,223 million for an 8% stake in VLI, and now holds 29.6% of VLI's total shares, resulting in a gain of R\$ 885 million, recognized in the income statement as "Equity results and other results in associates and joint ventures" of the fiscal year ended in December 31, 2020.

PT Vale Indonesia Tbk

PTVI, a public company in Indonesia, has an agreement in place with the government of the Republic of Indonesia to operate its mining licenses, expiring in December 2025. According to the agreement, PTVI must meet certain requirements to extend the period of the mining licenses beyond 2025, including the commitment to have Indonesian participants in its shareholding structure.

In June 2020, Company signed, together with Sumitomo Metal Mining Co., Ltd. ("SMM") an agreement for the sale of 20% (14.9% from Vale and 5.1% from SMM) of their aggregate stake in PTVI to PT Indonesia Asahan Aluminium, an Indonesia state-owned enterprise.

The transaction was concluded in October 2020 and the Company received a cash consideration of R\$ 1,560 million (US\$ 278 million). This transaction with non-controlling interests resulted in a loss of R\$1,012 million, which was recognized in Stockholders' Equity for the fiscal year December 31, 2020.

At the closing of the transaction, Vale and SMM, which have a stake of 44.3% and 15%, respectively, totaling a 59.3% interest in PTVI, signed a block voting agreement, in which SMM is required to follow

Vale's vote on relevant operational and financial decisions concerning PTVI. Therefore, the Company continues consolidating PTVI in its financial statements.

Henan Longyu Energy Resources Co., Ltd.

In December 2019, the Company entered into an agreement to sell its 25% interest in Henan Longyu Energy Resources Co., Ltd ("Henan Longyu"), a company that operates two coal mines in China, for a total consideration of R\$ 843 million (US\$ 156 million), therefore, this investment was classified as held for sale and an impairment loss of R\$ 630 million was recorded as "Equity results and other results in associates and joint ventures" in the income statement for the fiscal year ended December 31, 2019.

In 2020, precedent conditions of the agreement were met, and the Company received the cash consideration in full. Following the conclusion of the transaction, the Company recognized a gain of R\$ 598 million due to the recycling of the cumulative translation adjustments to the income statement, which was recorded as "Equity results and other results in associates and joint ventures" in the income statement for the year ended December 31, 2020.

Biopalma da Amazônia S.A.

In November 2020, the Company concluded the transaction to sell its entire interest in Biopalma da Amazônia S.A. Reflorestamento Indústria e Comércio ("Biopalma") to Brasil Bio Fuels S.A. Due to this agreement, the Company recognized a loss of R\$ 681 million as "Impairment and disposals of non-current assets" for the fiscal year ended on December 31, 2020, reducing the carrying value of this UGC to zero in the fiscal year ended December 31, 2020.

c. Unusual events or operations

Early extension of railway concessions

In December 2020, the Company agreed terms with the Brazilian Federal Government to extend its concessions to operate Estrada de Ferro Carajás ("EFC") and Estrada de Ferro Vitória-Minas ("EFVM") railways by thirty years, from 2027 to 2057. Upon the signing, the Company recognized an intangible asset related to its right to use of EFC and EFVM and, at the same time, in exchange for the early renewal of its contracts, a liability in the amount of R\$ 12,016 million.

In addition, as a condition for signing the contracts, the Company paid for a guarantee insurance in the amount of R\$ 1,026 million during the year on December 31, 2020. These insurance contracts guarantee cover indemnifications, up to the amount established in the insurance policy, in the event of possible losses resulting from the Company not being in compliance with its assumed contractual obligations in relation to the concession contracts. The contracts also provide for the payment of additional insurance policies in the amount of approximately R\$ 1,000 million, based on certain contractual milestones.

For further information, see note 16 of Company's consolidated financial statements.

COVID-19

The COVID-19 pandemic is having a significant impact on global economy and financial markets.

So far, the pandemic did not cause significant impact on the Company's operations, logistics or sales, but if it continues for a long period of time or increases in intensity in the regions where the Company operates, the financial conditions or results of operations in 2021 may be negatively impacted. Below is a summary of the main impacts on Company's business in 2020 and the risks that the Company expects to face in 2021:

- The Company placed the Voisey's Bay mine in care and maintenance for 3 months, impacting copper production. Nickel production, on the other hand, had its impact mitigated by the Long Harbor refinery, which sustained its operations using nickel concentrate inventories. In addition, social distance measures required more time for shifts change affecting productivity in North Atlantic, while significant absenteeism and deferred maintenance services affected the productivity of operations in Brazil.
- If the Company is required to suspend operations, or if it is restricted in its ability to transport products to clients in general, the results for 2021 may be affected by reduced revenues and higher logistics costs and downtime expenses. This may also impact on Company's cash generation and liquidity in 2021.
- Company suspended all non-essential construction works on its sites, which may increase its expenses and delay the fulfillment of the benefits of the expansion plans, review of operations or resumption of production capacity, among other difficulties.

Brumadinho dam failure

The Brumadinho dam rupture had a significant impact on the Company's financial performance and results of operations for the fiscal year ended on December 31, 2020.

On February 4, 2021, the Company entered into a Judicial Settlement for Integral Reparation ("Global Settlement"), which was under negotiations since 2019, with the State of Minas Gerais, the Public Defender of the State of Minas Gerais and the Federal and the State of Minas Gerais Public Prosecutors Offices, to repair the environmental and social damage resulting from the Dam I rupture. With the Global Settlement, the requests contained in public civil actions regarding the socio-environmental and socioeconomic damages caused by the dam rupture were substantially resolved. In addition, relevant aspects related to the scope and execution of the Company's obligations were defined. Therefore, as the negotiations have started before the reporting date, the Company recognized a loss of R\$ 19,924 million in the income statement for the year ended December 31, 2020.

The key impacts are summarized below:

- *Impact on the income statements:* The impact of the dam rupture in the income statement for the fiscal year ended December 31, 2020, was R\$ 27,016 million, including (i) R\$ 19,924 million in provisions to meet the obligations under the Global Settlement, (ii) R\$ 3,175 million in provisions to meet the obligations in connection with the de-characterization of upstream dams, (iii) R\$ 2,586 million in expenses with items, such as communication services, accommodation and humanitarian assistance, equipment, legal services, water, food aid, and taxes, among other items; and (iv) R\$ 1,331 million in provisions related to geotechnical safety actions of the remaining structures at the Córrego do Feijão mine, including the removal and proper disposal of the residual waste from Dam I. Additional provisions related to the dam rupture in Brumadinho may be recognized in the future.
- *Impact on Balance Sheet:* The total amount of the provisions recognized in the balance sheet on December 31, 2020 in connection with Brumadinho dam failure, including provisions for remediation and reparation obligations under the Global Settlement, individual indemnification and other commitments, and de-characterization of dams is R\$ 35,671 million.
- *Operational stoppages:* The Company suspended some operations due to judicial decisions or technical analysis performed by the Company on its upstream dam structures. We recorded losses in relation to the operational stoppage and the idle capacity of the ferrous mineral segment in the amount of R\$ 3,206 million and R\$ 3,888 million for the fiscal year ended on December 31, 2020 and 2019, respectively. The Company is working on legal and technical measures to resume all operations at full capacity.

- Freeze orders: Following the Brumadinho dam rupture, various Brazilian courts have ordered freezes, attachments, judicial deposits and similar measures affecting financial assets, including balances in bank accounts and pre-existing judicial deposits to secure the payment of damages resulting from dam rupture. The Company obtained bank guarantees of R\$ 5,843 million and have applied to the relevant courts to have part of judicial deposits replaced with these guarantees. With the Global Settlement, restricted assets and guarantees will be released to the authorities for the implementation of projects under the Global Settlement.

For further information, see note 23 of Company's consolidated financial statements.

Fundação Renova and Samarco

The Company holds a 50% interest in Samarco, and account for it under the equity method. According to the Transaction Term and Consent Decree (Termo de Transação e de Ajustamento de Conduta, "TTAC"), TAC Gov and Renova's bylaws, Fundação Renova must be funded by Samarco, but to the extent that Samarco is unable to fund it, Vale and BHPB must ratably bear the funding requirements under the Framework Agreement. As Samarco is gradually resuming its activities, the Company and BHPB have been funding Fundação Renova and also providing funds directly to Samarco.

Below is a summary of the impact of the rupture of Samarco's dam, which occurred in November 2015, in Company's financial statements:

- The carrying value of investment in Samarco was reduced to zero in 2015.
- The amount of provisions related to Samarco as of December 31, 2020 is R\$ 10,782 million, 57.3% higher than in 2019, mainly due to the review of the assumptions used in the preparation of the estimated cost necessary for the execution of the 42 repair and compensation programs. This provision represents the present value of the best estimate of the amounts the Company may incur to comply with its obligations under the Framework Agreement, considering our 50% stake in Samarco. At each reporting period, the Company will reassess the key assumptions used by Samarco in the preparation of its projected future cash flows, and any changes will be reflected in the respective provision, when applicable.
- In 2020, we contributed with R\$ 2,904 million, which was allocated as follows: (i) R\$ 2,059 million contributed to Fundação Renova and Samarco to be used in the reparation programs in accordance with TTAC, and deducted from the provision; and (ii) R\$ 845 million was used by Samarco to fund its working capital.
- The Company intend to make available a short-term facility up to R\$ 442 million to support Samarco's operations during 2021, but we have not undertaken an obligation to Samarco. The availability of funds by the shareholders – Vale S.A. and BHP – is subject to the fulfillment of certain conditions, being resolved by the shareholders, on the same basis and concurrently, as and when required.
- Since the creation of Fundação Renova in 2016, we made contributions directly to Fundação Renova and Samarco in the total amount of R\$ 5,779 million. The Company expects to contribute R\$ 4,554 million in 2021, to be used in programs in accordance with the TTAC.

10.4 - The officer should comment on:

a. Significant changes in accounting practices

2020

There were no significant changes in accounting practices adopted by the Company in 2020.

2019

IFRIC 23/ICPC 22 Uncertainty about tax treatment

IFRIC 23/ICPC 22 came into force for annual fiscal years starting on or after January 1st, 2019 and clarifies the criteria for measuring and recognizing IAS 12/CPC 32 - Income taxes. It does not apply to taxes or fees outside the scope of IAS 12/CPC 32, and does not specifically include requirements related to interest and fines associated with uncertain tax treatments. The Interpretation specifically addresses the following: (i) whether an entity considers uncertain tax treatments separately, (ii) the assumptions that an entity considers about the assessment of tax treatments by tax authorities and (iii) how an entity determines taxable profit (tax loss), tax basis, unused tax losses, unused credits and tax rates.

Management periodically assesses the positions assumed in the income tax returns with regard to situations in which the applicable tax legislation is subject to interpretation and, when appropriate, recognizes provisions based on the amounts that it expects to pay to the tax authorities. The benefits arising from uncertain tax positions are recognized only when it is determined by Management that the tax authority is likely to accept the tax treatment adopted, in the event of an answer.

IFRS 16/CPC 06 (R2) Leases

The Company applied IFRS 16/CPC 06 (R2) from January 1, 2019, using the retrospective approach with the cumulative effect, recognized on the date of initial application. Accordingly, comparative information has not been restated and continues to be disclosed in accordance with IAS 17/CPC 06 (R1) and related interpretations. In the transition to IFRS 16/CPC 06 (R2), these agreements started to be classified as lease and were recognized in the balance sheet and measured by discounting the minimum contractual payments remaining at present value, using the incremental funding rate according to the remaining contractual term.

The Company used the following practical steps in applying IFRS 16/CPC 06 (R2): (i) application of a single discount rate to a lease portfolio with similar characteristics; (ii) application of the exemption of the non-recognition of right-of-use assets and liabilities for leases with a period of less than 12 months and/or for low value leases. Payments associated with these agreements are recognized as an expense on a straight-line basis over the contractual term; and (iii) use of retrospective observable information to determine the lease term, considering the options for agreement extension or termination.

As a result of the adoption of IFRS 16/CPC 06 (R2), the Company changed its accounting policy for lease agreements, except for the lease of mineral deposits of the Company, as this pronouncement excludes lease agreements from its scope to explore or use minerals, oil, natural gas and similar non-renewable resources.

At the beginning of an agreement, the Company assesses whether an agreement is, or contains, a lease. An agreement is, or contains a lease, when Vale obtains the right to control the use of an identified asset, for a period of time, in return for a consideration.

The Company recognizes the asset related to the right of use and a liability corresponding to the lease on the date of the beginning of the agreement. The right-of-use asset is initially measured at cost, which includes the initial value of the lease liability adjusted for any lease payment made at the time or before the start date. The asset is subsequently depreciated on a straight-line basis over the contractual period or until the end of the asset's useful life.

The lease liability is initially measured at the present value of the lease payments, deducted using the lease's implicit interest rate or, if this rate cannot be immediately determined, based on the Company's incremental funding rate. The lease payments included in the measurement of the lease liability comprise: (i) fixed payments, including essentially fixed payments; (ii) variable lease payments that depend on an index or rate; and (iii) strike price of a purchase or renewal option, when the exercise of the contractual option is probable and under the control of the Company.

The lease liability is measured at amortized cost using the effective interest method and is remeasured when there is a change in future lease payments resulting from a change in an index or rate. When the lease liability is remeasured, a corresponding adjustment is made to the book value of the lease agreement asset or recognized directly in the income statement if the carrying amount of the asset has already been reduced to zero.

2018

IFRS 9/CPC 48 Financial Instruments

This pronouncement introduces new approaches to the classification and measurement of financial assets and liabilities, a new impairment model and new rules for hedge accounting. The Company applied IFRS 9 prospectively, with initial adoption on January 1, 2018. The Company failed to submit again the comparative information, which continues to be disclosed in accordance with the previous standard, IAS 39 - Financial Instruments. The main changes are described below:

Classification and measurement - In accordance with IFRS 9, debt instruments are subsequently measured at fair value through profit or loss ("FVTPL"), at amortized cost, or at fair value through other comprehensive income ("FVOCI"). The classification is based on the Company's business model for asset management, and if the contractual cash flows of the instrument represent solely payments of principal and interest (SPPI) on the value of the outstanding principal.

On the date of the initial application of IFRS 9, the Company evaluated which business models apply to its financial assets and classified them according to the categories of IFRS 9.

Financial instruments classified as "Loans and receivables" by IAS 39 have met IFRS 9 criteria for classification at amortized cost, as these financial instruments are maintained to collect their cash flows and represent only payments of principal and interest. Derivatives held for trading should be maintained as FVTPL, according to the requirements of IFRS 9, therefore, there were also no changes in relation to these instruments as of the adoption of IFRS 9.

Impairment – IFRS 9 superseded the IAS 39 incurred loss approach with an Expected Credit Loss (ECL) approach.

For accounts receivable, the Company adopted a simplified approach and calculated the expected credit loss, based on the expectation of default risk, throughout the life of the financial instrument and the identified loss is not considered significant. The Company has established a matrix of provisions that is based on its history of credit losses, adjusted to prospective factors specific to the economic environment in which it operates and for any financial guarantee related to the receivable.

The Company assesses on each date of submittal of its financial statements whether the financial assets classified at amortized cost must be subject to an impairment test. The new impairment approach of IFRS 9 did not have a material impact on the Company in the fiscal year ended December 31, 2018.

Hedge accounting - The Company adopted the new general hedge accounting model set forth in IFRS 9. In its initial application, the changes introduced by IFRS 9 related to hedge accounting have not impacted the Company, as the Company did not have fair value or cash flow hedge accounting. The Company had only net investment hedge, which has not had any changes introduced by this new pronouncement.

IFRS 15/CPC 47 Revenue from Contracts with Customers - This pronouncement sets a comprehensive framework to determine the conditions for revenue recognition, replacing the pronouncements IAS 18 Revenue, IAS 11 Construction Agreements and related interpretations. The Company adopted the new pronouncement using the modified retrospective method, which does not require the resubmittal of comparative information.

The Company has assessed its revenues and the nature and effect of the changes resulting from the adoption of IFRS 15 are described below:

Sale of products - There was no significant impact on the stage of recognition of product revenue, as the transfer of risks and benefits as well as the control usually occur at a specific moment in time.

Freight service - Part of Vale's sales are made under Incoterms modalities known as Cost and Freight (CFR) or Cost, Insurance and Freight (CIF), under which the Company is responsible for providing freight services after the date that Vale transfers control of the goods to the customers. According to the previous pronouncement (IAS 18), revenues from freight services were recognized at the time of shipment, as well as related costs, and were not considered as a separate service.

According to IFRS 15, the provision of freight services for CFR and CIF contracts should be considered as a distinct performance obligation in which a proportion of the transaction price would be allocated and recognized according to the actual provision of service over time. The impact of changing the timing of recognition of portion of the revenue allocated to freight has not impacted in a significant manner the Company's profit or loss in the fiscal year ended on December 31, 2018. Therefore, such revenue was not presented separately in the Company's consolidated financial statements.

Sales contracts at interim prices - Under IFRS 9 and 15, the treatment of the interim pricing mechanism embedded in commodity sales at interim prices remains unchanged. Accordingly, these revenues are recognized based on the estimated fair value of the total consideration receivable, and the interim pricing mechanism embedded in these contracts is characterized as a derivative. The fair value of the sale price adjustment is recognized as an operating income in the statement of income.

The changes introduced by IFRS 15 did not have a significant impact on the Company's consolidated financial statements for the fiscal year ended on December 31, 2018.

b. Significant effects of changes in accounting practices

IFRIC 23/ICPC 22 Uncertainty over tax treatment

The Company has assessed its uncertain tax positions, particularly those related to the deduction of social contribution on net income ("CSLL") in Brazil and to the calculation of transfer pricing on ore exports to foreign trading companies and, based on the position of its internal and external legal advisors, has concluded that these uncertain positions are likely to be accepted by the tax authority. These uncertain positions are discussed below:

(i) *CSLL Deduction in Brazil:*

In 2004, a decision of the Superior Court of Justice ("STJ") became final and unappealable, granting the Company the right to deduct CSLL from taxable income. The Federal Government filed a rescissory action in 2006, seeking the reversal of the 2004 decision. In 2019, the TRF upheld the rescissory action and, as of this decision, although not final, the Company started not to deduct CSLL in the computations of taxable income.

In November 2020, the Company received a tax assessment notice for collection of corporate income tax ("IRPJ") related to 2016 and 2017, in the amount of R\$2,259 million, related to the deduction of CSLL from the respective years in which Vale was supported by a final court decision.

Vale defends that the rescissory action filed by the Federal Government is not applicable (Súmula 343/STF) and, even if it were, the periods prior to the final and unappealable decision of the rescissory action are not enforceable. The Company believes that interpretations contrary to this understanding would violate legal security and consolidated jurisprudence.

(ii) Calculation of transfer price on ore exports to foreign trading companies:

The Company received assessments for the collection of IRPJ and CSLL, related to the years 2015, 2016 and 2017, as a result of the disregard by the inspection agent of the intermediation cost used in the calculation of the transfer price calculation on the export of iron ore, copper and manganese to a subsidiary abroad.

The company is discussing these charges in the administrative sphere and is awaiting a decision. The total amount assessed is R\$ 3,614 million at the base date of these 2020 financial statements (2019: R\$ 1,431 million). Additionally, there was a reduction of tax losses and negative basis in 2015, 2016 and 2017, whose tax effect is R\$ 1,882 million, plus ex-officio fine and interest.

The Company maintains the form of calculation of the transfer price, as it considers to be the most appropriate tax treatment to the interpretation of the rules in force and applicable to the topic. In the years 2018 to 2020, the amount involved is R\$ 6,401 million.

IFRS 16/CPC 06 (R2) Leases

The Company applied IFRS 16/CPC 06 (R2) from January 1, 2019, using the retrospective approach with the cumulative effect, recognized on the date of initial application. Accordingly, certain operational lease agreements that were not recognized in the balance sheet, are now classified as leasing under the new accounting standard and were recognized in the balance sheet.

The lease liabilities recognized according to IFRS 16/CPC 06 (R2) are presented below, reconciled with the published operating lease commitments, pursuant to IAS 17/CPC 06 (R1), on December 31, 2018:

(in millions of Reais)	Lease commitments disclosed on December 31, 2018	Out of scope agreements	Present value adjustment	Lease liabilities recognized on January 1, 2019
Ports	4.384	0.002	(1.415)	2.971
Vessels	2.980	(0.004)	(0.633)	2.343
Pelleting plants	0.843	(0.057)	(0.201)	0.585
Properties	0.628	(0.002)	(0.095)	0.531
Energy plants	0.362	-	(0.114)	0.248
Locomotives	0.264	(0.028)	(0.062)	0.174
Mining equipment	0.215	(0.071)	(0.018)	0.126
Total	9.676	(0.160)	(2.538)	6,978

The lease assets and liabilities operations recognized are presented below:

Assets						
(in millions of Reais)	January 1st, 2019	Contract Amendments and Additions	Impairment (ii)	Depreciation	Conversion adjustments	December 31st, 2019
Ports	2,971	57	-	(168)	98	2,958
Vessels	2,343	117	-	203	84	2,341
Pelleting plants	0,585	235	-	(144)	-	676
Properties	0,531	108	(63)	(135)	80	521
Energy plants	0,248	18	-	(28)	12	250
Locomotives	0,174	-	(149)	(25)	-	-
Mining equipment	0,126	-	-	(55)	2	73
Total	6,978	535	(212)	(758)	276	6,819
Liabilities						
(in millions of Reais)	January 1st, 2019	Contract Amendments and Additions	Payments	Interest	Conversion adjustments	December 31st, 2019
Ports	2,971	57	(217)	125	87	3,023
Vessels	2,343	117	(295)	89	89	2,343
Pelleting plants	585	235	(143)	28	-	705
Properties	531	108	(136)	28	83	614
Energy plants	248	18	(30)	16	30	282
Locomotives	174	-	(32)	12	-	154
Mining equipment	126	-	(38)	4	5	97
Total	6,978	535	(891)	302	294	7,218

c. Corrections and emphasis in the auditor's report

There were no corrections in the opinions of Vale's independent auditors relating to the consolidated financial statements for 2020, 2019, and 2018.

There were no emphasis-of-matter paragraphs in the consolidated financial statements for fiscal years ending on December 31, 2020 and 2019. However, the report of the independent auditors on the consolidated financial statements for the fiscal year ended on December 31, 2018, included an emphasis-of-matter paragraph, related to the failure of Brumadinho Dam, without changing the opinion on said consolidated financial statements. The emphasis-of-matter paragraph was reproduced below:

"Emphasis - Subsequent Event"

We draw attention to Note 3 of the individual and consolidated financial statements, which describes the event of the Brumadinho dam failure that took place at the Company's operating facilities on January 25, 2019. In the opinion of the Company's Management, the event does not refer to a condition existing on the date of the financial statements and; therefore, does not result in adjustments to the book values recognized on December 31, 2018. The amounts disclosed in the explanatory note related to this event were based on Management's best estimates; however, at the current stage of investigations, appraisal of causes and possible actions of third parties, it is not possible to reliably measure all potential costs that the Company may incur for purposes of disclosure in the financial statements. Our opinion is not an exception with regard to this topic."

With respect to the event of the Brumadinho dam failure that occurred on January 25, 2019, located at the Córrego do Feijão mine in Minas Gerais and subsequent developments, the Company concluded, based on the accounting practices adopted in Brazil and the IFRS, that this event does not refer to a condition existing on the date of the financial statements, and; therefore does not result in adjustments to the accounting balances recognized on December 31, 2018, as disclosed in the Company's consolidated financial statements.

Still with regard to the Brumadinho event, the Company agrees that at the current stage of investigations, appraisals of the causes and possible actions of third parties, it is not possible to reliably measure all the potential costs that the Company may incur for the purposes of disclosing the financial statements. The amounts disclosed in the financial statements refer only to the best estimates that have been possible to calculate so far.

10.5 – Critical accounting policies

The preparation of consolidated financial statements requires the use of accounting estimates and the exercise of judgment by the Company's Management in the process of applying the Group's accounting policies.

These estimates are based on experience and Administration knowledge, information available at the balance sheet date and other factors, including expectations of future events that are believed to be reasonable under normal circumstances. Changes in facts and circumstances may lead to revision of such estimates. Actual future results may differ from the estimates.

Significant accounting estimates and judgments applied by the Company in preparing these consolidated financial statements of the Company are thus presented:

a) Deferred Revenue

The definition of the gain on the sale of mining rights and the portion of contractual liabilities of the gold transaction requires the use of critical accounting estimates for assumptions that include, but are not limited to: (i) allocation of costs between copper and gold based on relative prices; (ii) expected margin for independent components (sale of mining rights and services for gold extraction); and (iii) the discount rates used to measure the present value of future inflows and outflows.

b) Deferred taxes on profit

Significant judgments, estimates and assumptions are required to determine the amount of deferred tax assets that are recognized based on time and future taxable income. Deferred tax assets arising from tax losses and temporary differences are recognized considering assumptions and projected cash flows. Deferred tax assets may be affected by factors including, but not limited to: (i) internal assumptions about projected taxable income, based on production and sales planning, commodity prices, operating costs and capital cost planning; (ii) macroeconomic scenarios; and (iii) commercial and tax.

Moreover, the Company applies critical accounting judgment in identifying uncertainties about tax positions on profit, which may impact the consolidated financial statements. The Company operates in several jurisdictions where uncertainties arise in the application of tax requirements due to the complexity of tax legislation in these locations. Vale and its subsidiaries are subject to review of income tax and other tax returns and; therefore, disputes with tax authorities may arise due to the interpretation of applicable laws and regulations.

c) Mineral reserves and useful life of mines

The estimates of proven and probable reserves are regularly evaluated and updated. These reserves are determined using generally accepted geological estimates. The calculation of reserves requires the Company to make assumptions about future conditions that are uncertain, including future ore prices, exchange and inflation rates, mining technology, availability of permits and production costs. Changes in some of these assumptions could have a significant impact on proven reserves and probable reserves of the Company.

The estimated volume of mineral reserves is used as a basis for calculating the portion of the mining assets that is depleted, and their estimated useful life is a major factor in quantifying the provision of environmental recovery of the mines and the impairment of long-term assets. Any change to the estimate of the volume of reserves of the mines and the useful lives of the related assets may have a significant impact on the depreciation, depletion and amortization charges and the impairment assessment.

d) Impairment of assets

Significant judgments, estimates and assumptions are required to determine the existence of objective evidence of impairment, and in the preparation of the Company's cash flows. Management uses approved budgets as a starting point and the key assumptions are, but are not limited to: (i) mineral reserves and mineral resources measured by internal experts; (ii) costs and investments based on the best estimate of projects as supported by past performance; (iii) sales prices consistent with projections available in the reports published by the industry, considering the market quotation, when appropriate; (iv) useful life of each cash-generating unit (ratio between production and mineral reserves); and (v) discount rates that reflect the specific risks of each cash-generating unit.

These assumptions are subject to risks and uncertainties and may change the Company's projections and; therefore, may affect the recoverable value of the assets.

e) Fair value estimate

The fair value of financial instruments not traded in an active market is determined by using valuation techniques. The Company uses its judgment to choose the various methods. Assumptions are based on market conditions existing at the balance sheet date. The impact analysis if actual results vary from Management's estimates is presented in "Sensitivity analysis of the derivative financial instruments", on note 19 item "d" of the consolidated financial statements.

f) Dam de-characterization

The main estimates and critical assumptions applied in cost measurement and for the recognition of the provision for the de-characterization of dams consider, among others: (i) the volume of tailings to be removed, based on the available information and on the interpretation of the laws and regulations in force; (ii) the availability of places to deposit the tailings; (iii) the approval of the engineering methods and solutions submitted to the competent authorities; and (iv) updating of the discount rate.

Accordingly, the amounts effectively incurred by the Company may differ from the amounts currently provisioned, due to the confirmation of the assumptions used that depend on several factors, some of which are not under the control of the Company. These changes may result in a material impact on the amount of the provision in future periods. On each presentation date of its financial statements, the Company will reassess the main assumptions used in preparing the projected cash flows and adjust the provision, when necessary.

g) Liabilities related to Brumadinho

The provision for social, economic and environmental compensation may be affected by factors that include, but are not limited to: (i) changes in estimated current prices of direct and indirect costs related to inputs and services, (ii) changes in projected flow of payments of estimated costs, (iii) changes in technologies considered in the current measurement, (iv) number of people entitled to payments of damages, (v) resolution of potential and existing legal issues, (vi) demographic assumptions, (vii) actuarial assumptions and (viii) updates to the discount rate.

Accordingly, the amounts effectively incurred by the Company may differ from the amounts currently provisioned, due to the confirmation of the assumptions used that depend on several factors, some of which are not under the control of the Company. These changes may result in a material impact on the amount of the provision in future periods. On each presentation date of its financial statements, the Company will reassess the main assumptions used in preparing the projected cash flows and adjust the provision, when necessary.

h) Liabilities related to interest in affiliates and joint ventures

Under Brazilian corporate law and under the terms of the joint venture agreement, Vale is under no obligation to provide resources to Samarco. As a result, Vale's investment in Samarco had its recoverable amount reduced to zero and no provision related to Samarco's negative owner's equity was recognized.

The provision related to Fundação Renova requires the use of assumptions that may be affected primarily by: (i) changes in the scope of work included in the Agreement as a result of further technical analysis and ongoing negotiations with the Federal Prosecution Office; (ii) resolution of the uncertainty regarding the resumption of Samarco's operations; (iii) discount rate updates; and (iv) resolution of existing legal claims.

Moreover, the main estimates and critical assumptions applied in the provision of Germano dam consider, among others: (i) the volume of tailings to be removed, which was based on the available historical information and on the interpretation of the laws and regulations in force; (ii) the availability of places to deposit the tailings; (iii) the approval of the engineering methods and solutions submitted to the competent authorities.

As a result, the expenses to be incurred in the future may differ from the amounts provisioned and changes in these estimates may result in a material impact on the amount of the provision in the future. On each presentation date of its financial statements, the Company will reassess the main assumptions used by Samarco in the preparation of the projected cash flow, and any changes will be reflected in the respective provision, when applicable.

i) Asset retirement obligation

Judgment is required to determine the main assumptions used in the measurement of the asset retirement obligations, such as interest rate, cost of closure, useful life of the asset, considering the current stage of depletion, and the projected dates of depletion of each mine. Any change in these assumptions may significantly affect the provisioned amount. Therefore, the Company considers the accounting estimates related to the costs for the closure of the mine as a critical accounting estimate and reviews them annually.

j) Litigation

Lawsuits will be contingent by nature, that is, resolved when one or more future events occur or fail to occur. Typically, the occurrence or not of such events does not depend on the Company, and the

uncertainties in the legal environment involves exercising significant estimates and judgments on the part of the Management regarding the potential outcomes of future events.

k) Retirement benefit obligations

The amounts reported depend on a number of factors that are determined based on actuarial calculations, which use several assumptions to determine the costs and liabilities. One of the assumptions used is the determination and use of the discount rate. Any changes in these assumptions will affect the accounting records.

At the end of each year, the Company, together with external actuaries, reviews which assumptions should be used for the following year. These assumptions are used to determine the fair value of assets and liabilities, costs and expenses and future values of estimated cash outflows, which are recorded in the pension plan obligations.

10.6 – The officers must describe the relevant items not included in the issuer's financial statements, indicating:

a. Assets and liabilities held by the Company, directly or indirectly, that do not appear on its balance sheet (*off-balance sheet items*)

i. Offset portfolio of receivables where the entity maintains risks and responsibilities, including respective liabilities

There is no offset portfolio of receivables where Vale maintains risks and responsibilities, that are not included in the Company balance sheet.

ii. Agreement for future sale and purchase of products or services

The future minimum payment commitments referring to the future obligation of purchases are the following, for the date of December 31, 2020:

(in millions of Reais)	December 31st, 2020
Raw material and services purchase agreement	36.328
Energy Purchase Agreement	15.306
All minimum payments required	51.634

iii. Unfinished construction agreements

There are no unfinished construction agreements that are not shown in the Company's consolidated financial statements.

iv. Agreements for futures from financing

There are no agreements for the futures from financing not shown in the Company's consolidated financial statements.

b. Other items not evident in the financial statements

Guarantees granted

On December 31, 2020, 2019 and 2018, the total of guarantees granted by the Company (within the limit of its indirect or direct interest) for determined associates and joint ventures totaled R\$ 8.091 million, R\$ 6.671 million and R\$ 6.723 million, respectively. The fair value of guarantees on December 31st, 2020, 2019 and 2018 totalized R\$ 4.558 million, R\$ 2.116 million and R\$ 644 million, respectively.

There are no other items not shown in Vale's consolidated financial statements other than those previously reported.

10.7 – With regard to each of the items not shown in the financial statements indicated in item 10.6, the officers should comment on:

(a) How these items alter or may alter revenue, expenses, operating income, financial expenses or other items in the financial statements of the Company

The Company does not expect relevant effects on operations not shown in the consolidated financial statements that may change the revenues, expenses, operating profits and loss, financial expenses or other items in Vale's accounting information..

(b) Nature and purpose of the operation

For a description of the nature and purpose of each operation, see item "10.6" in this Reference Form.

(c) Nature and amount of obligations assumed and rights generated in favor of the Company arising from the operation

For a description of the amount of the obligations assumed and rights generated on behalf of Vale as a result of operations not shown in its financial statements, please refer to item "10.6" of this Reference Form.

10.8 - The officers must indicate and comment on the main elements of the issuer's business plan, specifically exploring the following topics

a. Investments, including:

NOTE: To convert the amounts of investments made, the average exchange rates in the periods were used for conversion.

(i) quantitative and qualitative description of investments in progress and planned investments:

The investment budget for 2021 is estimated at US\$ 5.8 billion, including expenditures for the execution of projects and also dedicated to the maintenance of existing operations and replacement projects.

The main projects in 2020, Salobo III and Programa 240Mt, will continue to be developed in 2021, as well as new projects approved in 2020, such as Capenema, Serra Sul 120 Mtpy and Sol do Cerrado, totaling US\$ 1 billion for the year. Some projects at planning stage are also included in the budget, such as Victor and Alemão, for future nickel and copper production, respectively. In addition, the projects Gelado and Extensão from the Voisey's Bay mine, as well as investments in tailings filtration plants, are ongoing and categorized as investments to the maintenance of existing operations and replacement projects and will total US\$ 4,800 million in 2021.

In 2020, Vale's investments (execution of projects and maintenance of operations) totaled US\$ 4,430 million. The investment for project execution was US\$ 522 million, while for maintenance of existing operations was US\$ 3,908 million.

In 2019, Vale's investments (execution of projects and maintenance of operations) totaled US\$ 3,704 million. The investment for project execution was US\$ 544 million, while for maintenance of existing operations was US\$ 3,160 million.

In 2018, Vale's investments (execution of projects and maintenance of operations) totaled US\$ 3,784 million. The investment for project execution was US\$ 888 million, while for maintenance of existing operations was US\$ 2,896 million.

(ii) investment financing sources

The Company informs that funds for operations and investments are obtained, mainly, through our operating cash flow, capital budget, bank loans, financing obtained from financial institutions, in addition to raising funds in the capital market through the issuance of bonds. For the investments to be made, the Company will, in due course, seek the best capital structure for financing.

(iii) relevant divestments in progress and expected divestments

The Company informs that, in order to promote increasingly safer, environmentally responsible operations that guarantee the integrity of Vale's assets, the Board of Directors approved operations that aim to reduce risks and allow continuous focus on the main businesses. The searches for a buyer and studies for the exit of the operation of Vale Nova Caledonia (VNC) are highlighted and the intention to divest in the coal operational segment in Mozambique, in line with its climate agenda strategy are also announced.

b. Already-disclosed acquisition of plant, equipment, patents or other assets that should materially affect Vale's production capacity

There is no disclosed acquisition of plants, equipment, patents or other assets that should materially affect Vale's production capacity.

c. New products and services, including: (i) description of ongoing researches already disclosed; (ii) the total amounts spent by the Company on research to develop new products or services; (iii) ongoing projects already disclosed; and (iv) the total amounts spent by the Company to develop new products or services

Vale continually seeks to assess the needs of the market and its customers in relation to products and services. In order to meet the growing demand for products that reduce the carbon emission in the metallurgical process, Vale seeks to foster a high-quality products portfolio and innovative technologies, such as iron ore pellets, high quality pellet feed and sinter feed. Vale is also developing new products for direct blast furnace loading and working with partners to provide low CO2 solutions in metals.

The Company believes that its ability to offer customers a complete iron ore solution and the quality of its products are extremely important advantages that help it to improve its competitiveness over competitors who may be in a more convenient geographic location. Besides offering technical assistance to customers, there are offices in St. Prex (Switzerland), Tokyo (Japan), Singapore, Dubai (United Arab Emirates), Shanghai, Beijing and Qingdao (China), which support Vale International's global sales, and an office in Brazil, which supports sales to South America.

10.9 - Other factors that have influenced in a relevant manner the operating performance and that have not been identified or commented on other items in this section.

There are no other facts occurred in the last three fiscal years with relevant influence on the operational performance other than those identified and commented in other items in this section.

11. Projections

11.1 – Disclosed projections and assumptions

The Company clarifies that the information disclosed in this item represents a mere estimate, hypothetical data and, under no circumstances, constitute a promise of performance by the Company and/or its directors. The projections presented below involve market factors beyond the Company's control and, therefore, they may change. 10

a. Subject matter of the projection

Production

Vale estimates the volume of iron ore¹¹ production between 315 and 335 Mt in 2021.

Vale estimates the production volume of its nickel business at an average of 200 kt between 2021 and 2023 and an average of 220 kt between 2024 and 2025.

Vale estimates the production volume of its copper business between 360 and 380 kt in 2021, an average of 455 kt between 2022 and 2024 and approximately 500 kt in 2025.

Costs

Vale estimates the C1 cash cost with no third-party purchase costs between US\$ 10.5/t and US\$ 12.0/t when Vale reaches the production level of 400 Mtpy.

Adjusted EBITDA

Vale estimates an Adjusted EBITDA for 2023¹² ranging from \$ 17.4 billion to \$ 29.6billion.

Nickel – EBTIDA and CAPEX

Nickel (US\$ billion)	2021E	2025E
EBITDA	1.6	2.2
Capex	1.4	1.2

CAPEX

US\$ billion	2021E	Average for the coming years
Total Vale	5.8	5.5

¹⁰ In this whole section 11, in order to carry out the conversion of values from USD to BRL of the estimates related to the year 2020 onwards, the exchange rate of BRL/USD 5.1967 was used, unless a different exchange rate is reported. The rate used was the average exchange rate taken from Vale's Financial Statements for the fiscal year 2020.

¹¹ Including third-party purchases, run-of-mine and feed for pelletization plants.

¹² It does not consider any additional provisions.

Maintenance ¹³	4.8	4.5
Growth	1.0	1.0

Estimated impact on Vale's cash flow

US\$ million	2021E	2022E
Samarco	-50	-50
Renova	-550	-250

Free Cash Flow Yield

Vale estimates the average Free Cash Flow yield between 2021 and 2023, per year¹⁴, ranging from 44.4% to 15.7%, approximately.

Cash disbursements related to de-characterization

USD billion	2021E	2022E	2023E	2024E	2025E	2026-2029E
Cash disbursement	0.4	0.5	0.3	0.3	0.3	0.9

Debt

USD billion	2021E	2022E	2023E
Expanded Net Debt ¹⁵	9.6	8.2	6.8

b. Projected period and projection expiration period

Production

The projected periods for the 2021 iron ore production¹⁶ is the specified fiscal year itself.

The projected periods for nickel production between 2021 and 2023 and between 2024 and 2025 are the specified fiscal years themselves.

The projected periods for copper production in 2021, between 2022 and 2024 and in 2025 are the specified fiscal years themselves.

¹³ Includes replacement projects.

¹⁴ Estimated free cash flow does not consider dividends, repurchases or acquisitions. It considers the cash inflow of the goldstream of gold from Salobo III in 2022.

¹⁵ Considering 100% cash flow distribution.

¹⁶ Including third-party purchases, run-of-mine and feed for the pelletizing plants.

In turn, the expiration period for the estimates made consists of the disclosure of the production report for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above, as applicable.

Costs

The projection for C1 cash cost with no third-party purchase costs considers the production level of 400 Mtpy.

Adjusted EBITDA

The projected period for the Adjusted EBITDA for 2023 consists of the specified fiscal year itself. In turn, the expiration period for the estimate made consists of the disclosure of the result for the 2023 fiscal year, which will take place in the fiscal year subsequent to the end of this fiscal year.

Nickel – EBITDA and CAPEX

The projected periods for the Nickel EBITDA for 2021 and 2025 consist of the specified fiscal years themselves. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

The projected periods for the Nickel CAPEX for 2021 and 2025 consist of the specified fiscal years themselves. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

CAPEX

The period projected for the Company's CAPEX 2021 consists of the fiscal year ending December 31, 2021. In turn, the expiration period for the estimate made consists of the disclosure of the result for the fiscal year listed above, which will take place in the fiscal year subsequent to the end of the fiscal year indicated above.

Estimated impact on Vale's cash flow

The projected periods for the estimated impact on Vale's cash flow for Samarco and Renova in 2021 and 2022 consist of the indicated fiscal years. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

Free Cash Flow Yield

The projected periods for the average Free Cash Flow yield for 2021, 2022 and 2023 consist of the specified fiscal years themselves. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

Cash disbursements related to de-characterization

The projected periods for cash disbursements related to de-characterization in 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028 and 2029 consist of the specified fiscal years themselves. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year

listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

Debt

The projected periods for the expanded Net Debt estimates for 2021, 2022 and 2023 consist of the specified fiscal years themselves. In turn, the expiration period for the estimates made consists of the disclosure of the result for each fiscal year listed above, which will take place in the fiscal year subsequent to the end of each fiscal year indicated above.

c. Assumptions for the projection, indicating which may be influenced by the Company's management and which are beyond its control

All the assumptions mentioned below are subject to external influence factors, which are beyond the control of the Company's management. Therefore, in the event of any relevant future changes to these assumptions, the Company may review its estimates mentioned below, modifying them compared to those originally presented.

Production

The assumptions used for the projection of the volume of iron ore production¹⁷ (Mt) in 2021 were: (a) maintenance of operations according to capacity in 2020; (b) resumption of operations stopped over the projected period.

The assumptions used for the projection of nickel production volumes (kt) for the period between 2021 and 2023 and between 2024 and 2025 were: (a) maintenance of operations according to capacity in 2020; (b) start-up of replacement and growth projects over the projected period.

The assumptions used for the projections of copper production in 2021, from 2022 to 2024 and in 2025 were: (a) maintenance of operations according to 2020 capacity; (b) start-up of replacement and growth projects over the projected period.

Costs

The assumptions used for the projection of the C1 cash cost with no third-party purchase costs for when Vale reaches the production level of 400 Mtpy were: (a) dilution of fixed cost; (b) removal of restriction inefficiencies; (c) filtering and geotechnical initiatives; (d) average BRL/USD exchange rate of 5.1 once Vale reaches the production level of 400 Mtpy.

Adjusted EBITDA

The assumptions used for the projected 2023 Adjusted EBITDA were: (a) annual average price for iron ore, ranging from US\$ 70/t to US\$ 100/t; (b) annual average price for nickel (LME), ranging from US\$ 14,000/t to US\$ 20,000/t; (c) annual average price for copper (LME) estimated at US\$ 6,600/t; (d) annual average prices for high and low sulfur bunker at US\$ 323/t; (e) annual average BRL/USD exchange rate of 4.77.

Nickel – EBITDA and CAPEX

¹⁷Including third-party purchases, run-of-mine and feed for pelletization plants.

The assumptions used for the projection of Nickel EBITDA and CAPEX for 2021 and 2025 were: (a) higher volumes in the South Atlantic and North Atlantic operations; (b) lower CAPEX after the completion of VBME, CCM1 and Onça Puma; (c) ore sale to projects with Joint Ventures in Indonesia; (d) others, such as better purchase of ore from third parties and higher revenues from by-products.

CAPEX

The assumptions used for CAPEX projections in 2021 and in the average for the coming years were: (a) the average BRL/USD exchange rate of 5.10 (2021) and 4.77 (coming years).

Estimated impact on Vale's cash flow

The assumptions used for the purposes of estimating the impact on Vale's cash flow for Samarco and Renova in 2021 and 2022 were: (a) the average BRL/USD exchange rate of 5.10 (2021) and 4.77 (2022).

Free Cash Flow Yield

The assumptions used for the projection of the average Free Cash Flow yield between 2021 and 2023, per year, were: (a) annual average price of iron ore, ranging from US\$ 70/t to US\$ 100/t; (b) annual average price of nickel (LME), ranging from US\$ 14,000/t to US\$ 20,000/t; (c) annual average price of copper (LME) estimated at US\$ 6,600/t; (d) annual average prices of high and low Sulphur bunker at US\$ 323/t; (e) annual average BRL/USD exchange rate of 5.10 (2021) and 4.77 (2022-2023); (f) market capitalization as of November 26, 2020.

Cash disbursements related to de-characterization

The assumptions used for the purpose of projecting cash disbursements related to de-characterization in 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028 and 2029 were: (a) average BRL/USD exchange rate of 5.10 (2021), and (b) average BRL/USD exchange rate of 4.77 (2022-29).

Debt

The assumptions used for the purposes of estimating the expanded Net Debt for 2021, 2022 and 2023 were: (a) expected cash generation from 2020 to 2023; (b) scenario of the distribution of total cash generated in each year; (c) the reduction of the main commitments related to leases, foreign exchange swaps, Refinancing Program (Refis), provisions for Brumadinho and Renova Foundation.

d. Values of the indicators that are subject of the forecast

Production

See below, for reference purposes, the Company's production realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Iron ore ¹⁸ (Mt)	300.4	302.0	384.6

¹⁸Including third-party purchases, run-of-mine and feed for pelletization plants.

Nickel (Kt) ex- VNC	183.7	184.6	212.1
Copper (Kt)	360.1	381.1	395.5

Costs

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
C1 cash cost with no third-party purchase costs (per ton)	13.7	13.9	13.1

ADJUSTED EBITDA

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Adjusted EBITDA	US\$ 16.6billion ¹ (R\$ 86.27 billion) ²	US\$ 10.6 billion ¹ (R\$ 42.3 billion) ²	US\$ 16.6 billion ¹ (R\$ 61.1 billion) ²

¹ It considers the amount reported by the Company according to IFRS standards in US\$.

² It considers the amount reported by the Company according to IFRS standards in R\$.

Nickel – EBTIDA and CAPEX

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

Nickel	Fiscal Years Ended		
	2020	2019	2018
EBITDA	USD 2,981 million	USD 2,174 million	USD 2,542 million
CAPEX	USD 1,805 million	USD 1,376 million	USD 1,223 million

CAPEX

See below, for reference purposes, the Company's CAPEX realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Total Vale	US\$ 4.4 billion (R\$ 21.31 billion)	US\$ 3.7 billion (R\$ 14.5 billion)	USD 3.8 billion (R\$ 13.8 billion) ¹

¹ It considers the average exchange rate for each fiscal year.

² It includes replacement investments.

Estimated impact on Vale's cash flow

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Samarco	US\$ 196 million (R\$ billion)	US\$ 415 million (R\$ 1.6 billion)	US\$ 374 million (R\$ 1.4 billion) ¹
Renova	USD 394 million	USD 315 million	-

¹ It considers the amount reported by the Company according to IFRS standards in US\$.

Cash disbursements related to de-characterization

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Cash disbursements	USD 293 million	USD 158 million	-

Debt

See below, for reference purposes, the Company's indicators realized for the last three fiscal years:

	Fiscal Years Ended		
	2020	2019	2018
Expanded Net Debt ¹⁹	USD 13,334 million	USD 17,766 million	-

¹⁹ Considering 100% cash flow distribution.

11.2 – Follow-up and changes to the disclosed projections

a. to inform which are being replaced by new projections included in the form and which of them are being repeated in the form

For information on projections for the current or coming period that have been restated, see item 11.2 (c) below.

b. as to the projections for periods already elapsed, to compare the projected data with the effective performance of the indicators, clearly stating the reasons that led to deviations from projections

Monitoring of projections

Nature of projection	Projection (2020)	Realized (2020)	Explanation
Unit freight cost reduction	> US\$ 3/t	> US\$ 3,5/t	In line

Nature of projection	Projection (2020)	Realized (2020)	Explanation
Production – Ferrous (Mt)			
Iron ore	between 300 and 305	300.4	In line
Pellets	between 30 and 35	29.7	In line
Nickel ex VNC	between 180 and 195	183.7	In line
Copper	between 360 and 380	360.1	In line
Cost			
C1 cash cost with no third-party purchase costs (per ton)	13.6	13.7	In line
Capex (in US\$ billion)			
Total Vale	1.2	4.4	In line
Maintenance	3.7	3.9	In line
Growth	0.5	0.5	In line
Estimated impact on Vale's cash flow (in USD billion)			
Samarco	USD 200 million	USD 196 million	In line

Renova	USD 400 million	USD 394 million	In line
Debt (in US\$ billion)			
Net Debt	US\$ 0.00	US\$ 0.898 million	Below projection ¹
Expanded Net Debt	US\$ 11.0 billion	US\$ 13.3 billion	Above projection ²

¹ The variation against the projected net debt is due to the strong generation of operating cash in the fourth quarter, the divestment in PT Vale Indonesia and the option exercised by BNDES Participações S.A. regarding its right to restore the 8% interest in VLI S.A.

² The variation against the projected expanded net debt is due to the increase in provisions related to Brumadinho.

c. as to the projections related to ongoing periods, to inform if the projections remain valid on the date of delivery of the form and, when applicable, to explain why they were abandoned or replaced

As for the projections related to periods still ongoing, the projections mentioned in item 11.1 remain valid and have not been abandoned or replaced at the time of the annual re-submission of the Reference Form.

12. Shareholders' Meeting and Management

12.1 - Administrative structure of the issuer, as established in its articles of incorporation and bylaws

The Company's management consists of a Board of Directors and a Board of Executive Officers, as detailed below, in subitems "a" and "b" of this Item 12.1, respectively.

The Board of Directors has, on a permanent basis, seven advisory committees established under the Articles of Incorporation, namely (i) People, Compensation and Governance Committee; (ii) Operational Excellence and Risk Committee; (iii) Financial Committee; (iv) Audit Committee; (v) Nominating Committee; (vi) Sustainability Committee, and (vii) Innovation Committee.

In addition, as a result of Dam I bursting at the Córrego do Feijão Mine in Brumadinho, on January 25, 2019, three non-statutory Independent Advisory Committees were established for the Board of Directors ("CIAE"), composed of independent members with a reputation and experience in the subjects in which they occupy, namely: (i) the Independent Advisory Committee for Extraordinary Support and Repair ("CIAE for Support and Repair"); (ii) Independent Committee for Extraordinary Assessment Advice ("CIAE for Assessment"); and (iii) Independent Committee for Extraordinary Advice on Dam Safety ("CIAE for Dam Safety"). The first two submitted their final reports in February 2020 and their activities were closed. The CIAE for Dam Safety submitted a final report on April, 2021, and its activities were also closed.

For advisory purposes, the Board of Executive Officers has, on a permanent basis, six technical and advisory committees that are not formed by virtue of the Articles of Incorporation, namely: (i) Business Risk Executive Committee - Operational; (ii) Business Risk Executive Committee - Geotechnics; (iii) Business Risk Executive Committee - Strategic, Financial and Cyber; (iv) Business Risk Executive Committee - Compliance; (v) Business Risk Executive Committee – Sustainability, Institutional Relations and Reputation, and (vi) Conduct and Integrity Committee.

The Fiscal Council is a permanent body.

a. Attributions of the Board of Directors and permanent bodies and committees reporting to the Board of Directors, stating:

(i) if they have their own by-laws, and if so, the body responsible for approval, the date of approval, and, if the issuer issues such rules, locations on the worldwide network where these documents may be consulted

Board of Directors:

The Board of Directors of Vale is composed of at least 11 and at most 13 full members, and 1 alternate, with one of them being the President and the other the Vice-President, who will have a unified term of office of two years, with re-election allowed.

Under Vale's Articles of Incorporation, the positions of Chairman of the Board of Directors and Chief Executive Officer may not be held by the same person.

Also, under the terms of the Articles of Incorporation, at least seven (7) members of the Board of Directors elected shall be independent directors and the characterization of those appointed to the Board of Directors as independent directors must be resolved at the General Meeting that elects them.

At the Annual and Special General Meetings held on April 30, 2021, eight (8) independent members of the Board of Directors were elected.

For the purposes of this article, independent directors shall be deemed those (i) so defined by the Novo Mercado Regulation; and those (ii) who do not hold a direct or indirect interest greater than 5% (five percent) of the Company's capital stock or formal or declared bond with a shareholder that holds it. In any case, those who have served, consecutively or not, five (5) or more terms of office, or ten (10) years as a director of the Company, will not be considered independent directors.

If the elected Chairman of the Board is a non-independent director, the elected independent members must appoint an independent director (LID - Lead Independent Director); even though the Chairman is an independent director, the Board of Directors may proceed to such appointment. The director appointed under this paragraph will act in line with the Investor Relations area, as a contact alternative for shareholders, as well as in support of the Chairman of the Board of Directors and as a liaison and mediation between the Chairman and the other directors, in all cases and at all times without an individual decision-making function. The Board of Directors' bylaws may regulate this duty, within the limits established herein. Such an independent director shall at all times report, to the Board of Directors, all direct interactions with shareholders in order to maintain the information unity within the Board of Directors.

The Board of Directors will be represented externally by its Chairman, or by a director, and for the purposes indicated by him.

Subject to the right to use the separate voting under Paragraphs 4 and 5 of Article 141 of Law 6.404/76, in the event that there is a controlling shareholder, and the request for adoption of the multiple voting system, the election of the members of the Board of Directors shall be according to the following procedure:

I. Based on a reasoned proposal from the Nominating Committee, the Board of Directors shall approve, no later than five (05) days before the convening of the Annual Shareholders' Meeting where the new board shall be elected, according to the calendar of corporate events disclosed, a list of candidates to the board in numbers at least corresponding to the proposal of composition for that term of office, in observance of the limits of the Articles of Incorporation, and always considering the availability of the candidate's time for the position, including due to the simultaneous exercise of similar assignments in other entities, in particular publicly held corporations;

II. Comitê de NomeaçãoThe list referred to in item I above shall be published within five (5) days before the date of disclosure of the management proposal and the Absentee Voting Form;

III. Candidates indicated in the list referred to in item II above, as well as any candidates whose inclusion in the BVD has been timely requested, in accordance with the standards established by the Securities and Exchange Commission, shall have their names submitted to the Annual Shareholders' Meeting;

IV. Each candidate on the list submitted to the Shareholders' Meeting by the Board of Directors, as well as any individual candidacy submitted by the date of the meeting, shall be subject to individual vote;

V. In case a separate vote is requested, if applicable, the subject of the election shall be only the other directors.

In addition to the obligations provided for in Law, the Board of Directors shall:

- I. elect, evaluate and dismiss, at any time, the Executive Officers of Vale, and establish their attributions;
- II. distribute the remuneration established by the general meeting among its members and those of the Board of Executive Officers;
- III. assign an Investor Relations function to an Executive Officer;
- IV. deliberate on the selection, evaluation, development and remuneration policies of the members of the Board of Executive Officers;
- V. deliberate on Vale's general human resources policies proposed by the Board of Executive Officers;
- VI. establish the general business guidelines for Vale, its wholly-owned subsidiaries and controlled companies, taking into account social progress and respect for the environment;
- VII. resolve on Vale's objective, strategic guidelines and strategic plan proposed annually by the Board of Executive Officers, taking into consideration people's safety, social progress and respect for the environment, as well as oversee the execution of the approved strategy and its link with the purpose of the Company;
- VIII. deliberate on the annual and multi-annual budgets of Vale, proposed by the Board of Executive Officers;
- IX. monitor and evaluate Vale's economic-financial performance, together with Vale's performance in its sustainability initiatives, and they may request reports from the Board of Executive Officers with specific performance indicators;
- X. deliberate on investment and/or divestment opportunities proposed by the Board of Executive Officers that exceed the limits of the Board of Executive Officers defined by the Board of Directors;
- XI. express its opinion on consolidations, spin-offs and mergers in which Vale is a party, as well as on acquisitions of shareholdings proposed by the Board of Executive Officers;
- XII. in line with Vale's corporate purpose, to deliberate on the formation of companies or their transformation into another corporate type, the direct or indirect participation in or withdrawal from the capital of other companies, consortiums, foundations and other entities, through the exercise of the right of withdrawal, the exercise or waiver of preemptive rights in the subscription and acquisitions, directly or indirectly in stock of other companies, or any other type of participation or withdrawal allowed by law, including, without limitation, operations related to consolidations, spin-offs or mergers in companies in which it holds interest;
- XIII. deliberate on Vale's risk policies proposed by the Board of Executive Officers;
- XIV. resolve on the issue and cancellation of simple debentures, not convertible into shares and without collateral proposed by the Board of Executive Officers, as well as the issue and cancellation of debentures convertible into shares, within the limit of the authorized capital;
- XV. convene the General Meetings of Shareholders and to deliberate on the accounts of the Board of Executive Officers, substantiated by the Annual Management Report, as well as on the Financial Statements, for subsequent referral for review at the annual shareholders' meeting;
- XVI. deliberate on the allocation of the profit for the year, the distribution of dividends and, when necessary, the capital budget, proposed by the Board of Executive Officers, for subsequent referral to the annual shareholders' meeting;
- XVII. choose, remove and establish the scope of work of Vale's external auditors, in each case on the recommendation of the Audit Committee and subject to applicable legislation;
- XVIII. appoint and dismiss those responsible for the governance secretariat and the compliance department, the latter including the areas of integrity, internal audit and the company's Reporting Channel, which will report directly to the Board of Directors;
- XIX. deliberate on the policies and the annual internal audit plan proposed by Vale, as well as to become cognizant of its reports and determine the adoption of necessary measures;
- XX. supervise the management of Executive Officers and examine Vale's books and papers at any time, requesting information on agreements entered into or in the process of execution, and on any other acts, in order to guarantee the financial integrity of Vale;
- XXI. act as guardian of the corporate governance model and practices, which include, but are not

- limited to, deliberations on changes in corporate governance rules, the accountability process, and the disclosure of information process;
- XXII. act as guardian of the Company's culture, ensuring its conformity in relation to strategic guidelines, supporting the promotion of updating initiatives, when necessary;
 - XXIII. resolve on functional conduct policies based on Conduct and moral standards embodied in Vale's Code of Conduct, to be respected by all managers and employees of Vale, its subsidiaries and controlled companies, as well as to act as guardian of Company's commitments related to respect for human rights;
 - XXIV. deliberate on policies to avoid conflicts of interest between Vale and its shareholders or its administrators, as well as on the adoption of measures deemed necessary in the event of conflicts of this nature;
 - XXV. deliberate on Vale's institutional responsibility policies, especially those related to: the environment, health, safety and Vale's social responsibility proposed by the Board of Executive Officers;
 - XXVI. establish powers of the Board of Executive Officers for the acquisition, sale and encumbrance of assets of non-current assets and for the constitution of real liens, pursuant to Art. 7 of the Articles of Incorporation;
 - XXVII. establish the Board of Executive Officers' authority for the provision of guarantees in general and the contracting of loans and financing and for the execution of other contracts;
 - XXVIII. establish powers of the Board of Executive Officers for the execution of commitments, waiver of rights and transactions of any nature, except for the waiver of preemptive rights in the subscription and acquisition of equity interest, pursuant to item XII above;
 - XXIX. deliberate on any matters that are not within the competence of the Board of Executive Officers, pursuant to the Articles of Incorporation, as well as matters whose limits exceed the authority established for the Board of Executive Officers, as provided in Art. 14 of the Articles of Incorporation;
 - XXX. deliberate on any of: reformulations, changes or amendments to shareholders' or consortiums agreements or between shareholders or between consortiums of companies or consortiums in which Vale participates, and also to enter into new agreements and/or consortiums agreements that contemplate matters of this nature;
 - XXXI. authorize the negotiation, execution or amendment of a contract of any kind or value between Vale and: (i) its shareholders, directly or through intervening companies, (ii) companies that hold interest, directly or indirectly, in the capital of the controlling shareholder or are controlled, or are under common control, by entities that hold interest in the capital of the controlling shareholder, and/or (iii) companies in which the controlling shareholder of the company participates, and the Board of Directors may establish delegations, with powers and procedures, that meet the peculiarities and the nature of the operations, without prejudice to keeping the aforementioned collegiate body duly informed about all the transactions of the company with related parties, and the transactions with related parties must be carried out under commutative conditions, observing the market conditions, and the Directors with interests initially conflicting with those of the company should be excluded from the decision-making process;
 - XXXII. express an opinion on any matter to be submitted to the general meeting of shareholders;
 - XXXIII. authorize the acquisition of shares of its issue for maintenance in treasury, cancellation or subsequent sale;
 - XXXIV. resolve on recommendations sent by the Fiscal Council of the company arising of its duties at law and under the articles of incorporation; and
 - XXXV. prepare and disclose a reasoned opinion on any tender offering for the acquisition of shares related to the stock issued by Vale, disclosed within 15 days of the publication of the public offer for the acquisition of shares, which shall address at least (a) the convenience and timeliness of the public offering for the acquisition of shares considering the interests of Vale and all its shareholders, including in relation to the price and liquidity of the securities held by it; (b) the strategic plans disclosed by the offeror in relation to Vale; (c) alternatives to the acceptance of the public offering available on the market; and (d) other points that the

Board of Directors deems pertinent, as well as the information required by the applicable rules established by the Brazilian Securities and Exchange Commission ("CVM"). This opinion should include a reasoned opinion favorable or contrary to the acceptance of the public tender offer, emphasizing that it is the responsibility of each shareholder to make a final decision on such acceptance.

It will also be the responsibility of the Board of Directors to deliberate on the nomination, proposed by the Board of Executive Officers, of the persons that are to be members of the management, advisory and fiscal bodies of the companies and entities in which the company has participation, even if indirect. Whenever deemed convenient, the Board of Directors may delegate this assignment to the Board of Executive Officers. Vale and its subsidiaries in Brazil or abroad are prohibited to make, directly or indirectly through third parties, any contribution to political movements, even organized in parties, and to their representatives or candidates.

The Company's Board of Directors has its own Bylaws, the latest amendment to which was approved by the Board of Directors on June 28, 2018. It should be noted that the said document is available for reference on the CVM website (www.cvm.gov.br) and the Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Advisory Committees:

The Board of Directors has, on a permanent basis, 7 advisory committees established under the Articles of Association, hereinafter referred to as: People, Compensation and Governance Committee, Operational Excellence and Risk Committee, Financial Committee, Audit Committee, Nominating Committee, Sustainability Committee and Innovation Committee.

The mission of the committees is to advise the Board of Directors, including proposing improvements related to their respective areas of action, in order to give greater efficiency and quality to the decisions of the board.

Pursuant to art. 19 of the Company's Articles of Incorporation, the rules regarding the operation and attributions of the advisory committees to the Board of Directors shall be defined by the Board of Directors and set forth in the Internal Rules of each Committee.

(A) People, Compensation and Governance Committee:

The latest amendment to the bylaws of this Committee was approved by the Board of Directors, at a meeting on May 18, 2021. They are available for reference on the CVM website (www.gov.br/cvm) and the Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Pursuant to its bylaws, the People, Compensation and Governance Committee shall:

- I. evaluate the Company's general human resources policies proposed by the Board of Executive Officers to the Board of Directors;
- II. evaluate the adequacy of the remuneration model of the Board of Executive Officers and the proposal of distribution of the annual global amount for the remuneration of the officers;
- III. assist the Board of Directors in the definition and oversight of performance evaluation goals of the Board of Executive Officers and other leaders who report directly to the Chief Executive Officer;
- IV. assist the Board of Directors in the selection, compensation, annual performance assessment and removal of the Corporate Governance Secretary and the Compliance Officer, the latter in

- conjunction with the Audit Committee;
- V. assist the Board of Directors in the preparation and maintenance of a Appointment Policy for Vale specifically with regard to the members of the Advisory Committees, the Board of Executive Officers and the Directors who report directly to the Chief Executive Officer, in line with the applicable legal requirements and best corporate governance practices;
 - VI. support the Board of Directors in the process of selecting and appointing the Chief Executive Officer, as well as evaluating the appointment by the latter of other members of the Board of Executive Officers and other Officers who report directly to the Chief Executive Officer;
 - VII. monitor the succession plan of the Board of Executive Officers and other Officers who report directly to the Chief Executive Officer, including their successors, taking into account the desirable experiences and knowledge for these positions so that the Company can meet its objectives and face its challenges;
 - VIII. evaluate and recommend adjustments for compliance with the best corporate governance practices in relation to the structure, size and composition of the Advisory Committees and the Board of Executive Officers, based on market research and assessments made by external institutions and consultants;
 - IX. identify, select and recommend to the Board of Directors potential candidates for members of the Advisory Committees to the Board to replace any absences, impediments and vacancies of positions, observing the Articles of Incorporation of Vale;
 - X. support the Chairman of the Board of Directors in the organization of the performance evaluation process of the Board of Directors and Advisory Committees of the Company;
 - XI. evaluate proposals to amend corporate governance documents such as the Company's Articles of Incorporation, Code of Ethics and Bylaws of the Advisory Committees and the Board of Directors, as well as other Policies and documents that have not been attributed to other Committees;
 - XII. promote, monitor and watch over the evolution and effectiveness of the Company's governance model, ensuring that all initiatives are aligned with best practices and in synergy;
 - XIII. annually review and recommend the changes necessary to improve the corporate governance system adopted by the Company;
 - XIV. evaluate and follow up on current standards, regulations and recommendations, as well as market practices and trends that may impact the Company's activities with regard to corporate governance.
 - XV. prepare and approve the annual work plan of the People, Compensation and Governance Committee; and
 - XVI. propose the analysis and evaluation, as well as to give opinions on the other matters that fall within its remit.

(B) Operational Excellence and Risk Committee:

The latest amendment to the bylaws of this Committee was approved by the Board of Directors, at a meeting held on May 18, 2021. They are available for reference on the CVM website (www.gov.br/cvm) and Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Pursuant to its bylaws, the Operational Excellence and Risk Committee shall:

- I. make sure that the Company has structure and practices that ensure effectiveness in the identification and management of operational, geotechnical and operational continuity risks;
- II. encourage and monitor the development of a culture of risk awareness in all Company decisions, as well as proactive behavior in managing them;
- III. monitor Vale's Integrated Risk Map and Vale's Operational and Geotechnical Risk Matrix, especially those with critical and very critical impacts, as well as propose improvements in mitigation plans;
- IV. support the Board of Directors in defining the Company's exposure limit to operational and geotechnical risks, as well as the degree of risk tolerance for the risk matrix of these matters,

- establishing the quadrants corresponding to the unacceptable level of risks and the level of continuous monitoring;
- V. monitor risk events and operational controls from the perspective of the Integrated Risk Map, including those related to the safety of dams, waste dumps, sediment containment dykes and water reservoirs in the Company's mines;
 - VI. supervise the scope of action and effectiveness of the 2nd Specialized Defense Line in the assessment of potential operational risks, including geotechnical risks, in line with the strategic guidelines and risk tolerance limits approved by the Board of Directors;
 - VII. assess, from a risk perspective, the transfer or onerous assignment of assets, including mining rights, in addition to the waiver of rights and other unforeseen transactions among the duties of the other Advisory Committees to the Board of Directors;
 - VIII. monitor the Vale Management System, known as Vale Production System ("VPS"), ensuring the standardization of processes, policies and best practices to enable continuously more productive, safe and environmentally responsible operations and guarantee the integrity of the Company's assets;
 - IX. prepare and approve the Committee's annual work plan; and
 - X. propose the analysis and the evaluation, as well as to give opinions on the other matters that fall within its remit.

(C) Financial Committee:

The latest amendment to the bylaws of this Committee was approved by the Board of Directors, at a meeting on May 18, 2021. They are available for reference on the CVM website (www.gov.br/cvm) and Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Pursuant to its bylaws, the Financial Committee shall:

- I. evaluate the structure and conditions of investment and divestment operations, including consolidations, mergers and spin-offs in which the Company is involved;
- II. assess the compatibility between the level of shareholder remuneration and the parameters established in the annual budget and financial planning, as well as its consistency with the general dividend policy and capital structure of Company;
- III. assess minimum cash policy and financial investments;
- IV. evaluate the annual budget and the annual investment plan of the Company;
- V. evaluate the annual funding plan and the limits of indebtedness of the Company;
- VI. to evaluate the current investments and capital investments, which are under the approval authority of the Board of Directors;
- VII. monitor the financial execution of capital projects , of current budget and cash flow;
- VIII. monitor risks and financial controls from the perspective of the integrated risk map, and propose improvements in mitigation plans;
- IX. evaluate the policy of communication with the capital market;
- X. prepare and approve the Committee's annual work plan; and
- XI. propose the analysis and evaluation, as well as to give opinions on the other matters that fall within its remit.

(D) Audit Committee:

Information on the Audit Committee can be found in item (II) below.

(E) Nominating Committee

The latest amendment to the bylaws of this Committee was approved by the Board of Directors, at a meeting held on September 10, 2020. They are available for reference on the CVM website (www.gov.br/cvm) and the Company website (www.vale.com).

Pursuant to its bylaws, the Nominating Committee shall:

- I. assist the Board of Directors in the preparation and maintenance of a Vale's Appointment Policy, specifically with regard to the members of the Board of Directors, in line with the applicable legal requirements and the best corporate governance practices;
- II. periodically evaluate and recommend the adequacy of best corporate governance practices in relation to the structure, size and composition of the Board of Directors, as well as the balance of experience, knowledge and diversity of the profile, based on the last annual assessment of the body, on interactions with the main institutional investors of the Company and on market research and evaluations conducted by external institutions and consulting firms;
- III. assess and recommend the desirable profile of a candidate for a member of the Board of Directors who best meets the needs of the Company, according to criteria and guidelines set forth in Vale's Appointment Policy;
- IV. identify, select and recommend potential candidates for Directors, whose names shall be evaluated by the Board of Directors, so that they can be subjected, at the discretion of the Board of Directors, for election at a General Meeting of the Company, with the appointment of independent and external members of the Nominating Committee being prohibited, and in accordance with criteria and guidelines established in Vale's Appointment Policy;
- V. identifying, selecting and recommending to the Board of Directors potential candidates to replace any absence, impediment and vacancy in the positions of Director, in compliance with Vale's Articles of Incorporation and Appointment Policy;
- VI. preparing and/or updating the Board of Directors' succession plan, to be submitted for approval by the end of each term, so as to maintain a balance of experience, knowledge and diversity of the members' profile;
- VII. conduct a performance self-assessment at the end of its work, the result of which shall be submitted by the coordinator to the Board of Directors.
- VIII. preparing and approving the Committee's work plan; and
- IX. propose the analysis and evaluation, as well as to give an opinion on the other subjects of its competence.

(F) Sustainability Committee:

The latest amendment to the bylaws of this Committee was approved by the Board of Directors, at a meeting held on May 18, 2021. They are available for reference on the CVM website (www.gov.br/cvm) and Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Pursuant to its bylaws, the Sustainability Committee shall:

- I. review and recommend the subjects of Sustainability, Environment, and the manner they are

- approached, in the Company's strategic planning, by assessing, complementing and suggesting changes in the Company's socio-environmental strategies, monitoring the implementation thereof;
- II. advise the Board of Directors in the analysis of initiatives related to mineral survey, and new technologies, aiming at the competitiveness and sustainability - social, environmental and financial - of the Company;
 - III. evaluate the Company's Policies and conduct related to Safety, Environment, Health, Relationship with Communities, Human Relations, Communication and Institutional Relations;
 - IV. evaluate the Company's performance with respect to Sustainability, proposing challenges and improvements based on a long-term vision;
 - V. assist in the definition, evaluation and monitoring of the Company's Sustainability indicators and propose improvements by reviewing indicators on an annual basis;
 - VI. evaluate and propose the Company's compliance with national or international initiatives or agreements related to social and environmental issues, or its permanence therein, as well as to monitor the preparation and dissemination of the sustainability report;
 - VII. evaluate projects, initiatives, as well as the Company's investment proposals from the perspective of sustainability, in addition to making possible recommendations to the Board of Directors;
 - VIII. monitor the scope of action and effectiveness of the area of institutional relations in negotiations with regulatory bodies and other institutional relations associated with sustainability issues;
 - IX. evaluate the policies and proposals of donations, as well as the realization of non-mandatory expenses related to subjects under its responsibility, which are under the authority of the Board of Directors;
 - X. prepare and approve the Committee's annual work plan;
 - XI. monitor the actions to repair the tragedies of Mariana and Brumadinho, ensuring the implementation of the drivers established by the Independent Advisory Committee for Extraordinary Support and Repair ("CIAEAR"); and
 - XII. propose the analysis and evaluation of topics within its powers.

(G) Innovation Committee

This Innovation Committee was created at the Special Shareholders' Meeting of March 12, 2021, but didn't have its Bylaws approved by the Board of Directors.

Internal Audit:

The main role of Vale's Internal Audit department is to support management and the Company as a whole in improving its internal controls, so that any identified deficiencies can be effectively remedied in a timely manner. The main mechanism used to carry out the assessment by the Internal Audit area are the objectives and procedures established in the Annual Audit Plan ("Plan"), which is approved by Vale's Board of Directors. The Plan, in turn, consists of the scheduling of audit exams, as well as of the budget and the funds needed for its execution. This is based on a methodology focused on risk, including history of the work performed, information included by the Board of Executive Officers and the Board of Directors. The non-statutory Director of Internal Audit shall review and adjust the Plan, when necessary, in response to changes in Vale's business and in view of possible risks, operations, systems and controls. Any significant deviation to the Approved Plan shall be communicated to the Board of Directors, through an advisory committee appointed.

The Internal Audit area has been in existence since the late 1960s, and the Chief Compliance Officer ("CCO") function was created recently, reporting directly to the Board of Directors, with the Internal Audit reporting to the CCO.

The Internal Audit area had its own Bylaws. On May 14, 2020, the Company's Internal Audit Policy was approved in its place, aiming at establishing the general principles and guidelines for the performance of Internal Audit work.

The Audit Committee is responsible for supervising the internal audit activities, monitoring its independence, effectiveness and structural sufficiency, as well as the quality and integrity of the internal audit processes. The structure of the Internal Audit is also evaluated on an annual basis and, as appropriate, reviewed, using risk-based methodology and the relevance of the operations in order to ensure the suitability of the team to the size and complexity of Vale. Its operation is global, with teams in Brazil, Canada and Singapore **(ii) if the issuer has an audit committee established under the Articles of Incorporation, informing, if this is the case, its main duties, how it operates and if it meets the requirements of the regulation issued by the CVM regarding the subject.**

Vale's Audit Committee was installed at a meeting of Vale's Board of Directors held on March 11, 2020, which also approved its Bylaws, available for reference at the CVM website (www.gov.br/cvm) and Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

Pursuant to its bylaws, the Audit Committee shall:

- I. Review prior to its disclosure and monitor the quality and integrity of the Company's quarterly and annual financial statements, as well as related documents, including disclosures contained in the Management Report;
- II. Supervise the preparation of the Company's financial statements and other reports required by law, in order to ensure that such statements and reports comply with the applicable legal requirements;
- III. Analyze in conjunction with the independent auditors:
 - (a) Independent auditor's annual work plan
 - (b) changes in the critical accounting policies and practices adopted by the Company in the preparation and disclosure of its financial statements;
 - (c) the alternative treatments to be adopted by the Company when there is the possibility of adopting more than one accounting method due to options existing in the accounting principles and practices or in the methods of application thereof and the effects arising from such treatments;
 - (d) adequacy of estimates, accounting reserves and relevant judgments used by management in the preparation of financial statements;
 - (e) any changes in the independent auditors's scope of work and relevant failures and deficiencies identified in the Company's internal controls;
- IV. Assess and monitor, together with the management and the internal audit department, the appropriateness of related-party transactions with carried out by the Company;
- V. Monitor the quality and integrity of the information and measures disclosed, based on adjusted accounting data and on non-accounting data that add elements not provided for in the framework of the usual reports of the financial statements;
- VI. Monitor, together with the Company's Management and independent auditors, any cases of conflicts related to financial statements or the application of generally accepted accounting principles;
- VII. Understand any difficulties encountered by the independent auditors during the audit process.
- VIII. Monitor, within the scope of the tasks of the Audit Committee, the performance of regulatory and supervisory bodies on relevant topics, as well as the information, communications and reports thereto;
- IX. Ensure that the Company implements practical mechanisms to receive, retain and process information and complaints, internal and external to the Company, including complaints about accounting issues, internal controls and auditing. Such mechanisms shall ensure confidentiality and the anonymity, where applicable, of the users of the channel;
- X. Request that all complaints received, the addressing and results thereof be reported

- periodically;
- XI. Recommend the adoption of policies whereby any accusations and complaints involving managers and leaders who report directly to the Company's Chief Executive Officer, Members of the Board of Directors and Fiscal Council, Board Advisory Committees and Leaders who report directly to the Chief Compliance Officer, are immediately informed to the Audit Committee;
 - XII. Opine on the development of procedures to ensure the effectiveness of the consequences management conducted by the Company, including in the preparation and review of specific policy proposed by the Chief Compliance Officer;
 - XIII. Assist the Board of Directors, together with the People, Compensation and Governance Committee in the selection, compensation, annual performance evaluation and removal of the Chief Compliance Officer, which is responsible for Vale's areas of integrity, internal audit and reporting channel;
 - XIV. Supervise the activities of the area of internal controls and controllership, responsible for preparing the Company's financial statements, as well as assessing the internal control environment at its different levels, powers and responsibilities with regard to the preparation of the Company's financial statements;
 - XV. Monitor the recommendations for improvements in internal control and risk management systems made by internal auditors and independent auditors contained in the annual letter of recommendations, review them with the Board and monitor their implementation with the aim of eliminating or mitigating any relevant deficiencies identified;
 - XVI. Evaluate and monitor Vale's integrated risk map, as well as the effectiveness and sufficiency of risk control and management systems, and propose improvements;
 - XVII. Evaluate and monitor Company's risk exposures, even requiring detailed information on policies and procedures related to: (a) management compensation; (b) the use of Company's assets; and (c) expenses incurred on behalf of the Company;
 - XVIII. Recommend to the Board the hiring or dismissal of the independent auditors for the preparation of an independent external audit or for any other service, giving opinions on their fees, and evaluating the results of the services provided by them;
 - XIX. Supervise independent auditors's activities in order to assess (a) their independence; (b) the quality of services provided; and (c) the suitability of the provided services to the needs of the Company;
 - XX. Examine, prior to the hiring, the proposals and scope of services submitted by any independent auditing companies regulated by the CVM;
 - XXI. Review, at least annually, in conjunction with the independent auditors:
 - (a) the internal procedures of the independent audit firm in relation to quality control;
 - (b) any relevant issues identified in the most recent quality control review to which the independent auditors were subject, carried out by other independent auditors or arising from an internal program for such reviews;
 - (c) any inquiries or investigations related to the independent auditors, conducted by government or professional authorities or regulatory bodies in the five years preceding the current financial year.
 - XXII. Evaluate and recommend the policies, bylaws and annual audit plan presented by the internal auditor and assess implementation thereof;
 - XXIII. Supervise the Company's internal audit activities, monitoring its independence, effectiveness and the sufficiency of the structure, as well as the quality and integrity of the internal audit processes, and propose to the Board of Directors the actions that are necessary to improve them;
 - XXIV. Develop the summary annual report, to be presented in conjunction with the financial statements, containing, as a minimum, the following information: (a) its activities, the results and conclusions reached and the recommendations made; and (b) any situations in which there is significant divergence between the company's Management, external auditor and the Committee in relation to the financial statements of the Company;

The Company clarifies that the Audit Committee is composed entirely of independent members, fulfills the functions and characteristics determined in B3's Novo Mercado Regulation, and complies with the rules established for foreign companies that have ADRs listed in the New York Stock Exchange ("NYSE"), in addition to being an Audit Committee for the purposes of Rule 10 A-3(c) (3) of the Securities and Exchange Commission ("SEC").

(iii) how the Board of Directors evaluates the work of the independent auditor, indicating whether the issuer has a policy of contracting for extra-audit services with the independent auditor, and informing the body responsible for approving the policy, date of approval and, if the issuer discloses the policy, locations on the worldwide computer network where the document can be consulted

At a meeting of the Board of Directors, held on September 10, 2020, Vale's Policy for the hire of Independent Auditors was approved, which aims to establish the guidelines and principles for contracting audit services, related or unrelated to the audit of the consolidated financial statements of the Company and its subsidiaries, in compliance with the requirements set forth in the applicable legislation.

This policy establishes specific procedures for the initial hire of independent auditors, as well as the subsequent hire of other services rendered by the independent audit firm, based on principles that preserve the auditor's independence.

All contracts are evaluated by the Audit Committee, which is responsible for recommending the hiring of independent auditors for approval by the Board of Directors.

In addition, as provided for in the Company's Articles of Incorporation and the Bylaws of the Audit Committee, this committee is the body responsible for supervising and assessing the work of the independent auditors.

In relation to the fiscal year ended on December 31, 2020, 6 presentations of the work of the independent auditors were made to the Audit Committee.

For the fiscal year of 2021, 8 presentations to the Audit Committee are scheduled.

The Policy for the Hiring of Vale's Independent Auditors is available for reference on the CVM website (www.gov.br/cvm) and Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/policies/Paginas/default.aspx>)

(b) Regarding the members of the statutory Board of Executive Officers, their attributions and individual powers, indicating if the board has its own by-laws, and, if so, informing the body responsible for approval, date of approval and, if the issuer discloses the bylaws, where the document can be accessed on the internet

Board of Executive Officers:

Vale's statutory Board of Executive Officers is comprised of at least 6 and a maximum of 11 members, who shall hold office for three years, and re-election is permitted. Under the terms of Vale's Articles of Incorporation, the Board of Executive Officers, in addition to the attributions provided for in Law, shall:

- I. deliberate on the creation and elimination of the Directorates of Department subordinate to each Executive Officer;

- II. prepare and propose the general human resources policies of Vale to the Board of Directors, and execute the approved policies;
- III. comply with and enforce the general guidelines of Vale's business established by the Board of Directors, ensuring the safety of people and the environment in all locations in which Vale operates;
- IV. annually prepare and propose the strategic guidelines and strategic plan for Vale to the Board of Directors, considering socio-environmental issues, and execute the approved strategy plan;
- V. prepare and propose the annual and multi-year budgets for Vale to the Board of Directors, and execute the approved budgets;
- VI. plan and conduct Vale's operations and report to Vale's economic and financial performance on Vale's performance in its sustainability initiatives to the Board of Directors, and even producing reports with specific performance indicators;
- VII. identify, evaluate and propose investment and/or divestment opportunities to the Board of Directors that exceed the approval authority limits of the Board of Executive Officers established by the Board of Directors, and execute the approved investments and/or divestments;
- VIII. identify, evaluate and propose consolidations, spin-offs and mergers to the Board of Directors in which Vale is a party, as well as acquisitions of shareholdings, and conduct the upstream and downstream mergers, spin-offs, and acquisitions;
- IX. prepare and propose the financial policies of Vale to the Board of Directors, and execute the approved policies;
- X. propose the issue of simple, non-convertible and unsecured debentures to the Board of Directors;
- XI. define and propose to the Board of Directors, after the balance sheet has been drawn up, the allocation of the profit for the year, the distribution of Vale's dividends and, when necessary, the capital budget;
- XII. prepare, in each reporting period, the Annual Management Report and the Financial Statements to be submitted to the Board of Directors and, thereafter, to the Annual Shareholders' Meeting;
- XIII. comply with and promote employee compliance with Vale's Code of Conduct, established by the Board of Directors;
- XIV. prepare and propose the policies of Vale's institutional responsibility to the Board of Directors, such as the environment, health, safety and social responsibility of Vale and implement the approved policies;
- XV. to authorize the acquisition, sale and encumbrance of movable or immovable property, including securities, contracting of services, Vale being the provider or receiver thereof, being able to establish standards and delegate powers, all in accordance with the Board of Executive Officers approval authority limits established by the Board of Directors;
- XVI. authorize the signing of agreements, contracts and understandings that constitute liens, obligations or commitments for Vale, and establish norms and delegate powers, all in accordance with the approval authority limits of the Board of Executive Officers established by the Board of Directors;
- XVII. propose to the Board of Directors any reformulations, amendments, or additions to shareholders' agreements or between shareholders, or consortium agreements or between consortiums, of Vale or consortiums in which it participates, and also propose the signing of new agreements and consortium agreements which cover matters of this nature;
- XVIII. authorize the creation and closure of branches, agencies, warehouses, depots, representation offices or any other type of establishment in Brazil and abroad;
- XIX. authorize the execution of commitments, waiver of rights and transactions of any nature, except for the waiver of preemptive rights in the subscription and acquisition, pursuant to item XII above, in matters within the power of the Board of Directors, and establish norms and delegate powers, all in accordance with the approval authority limits of the Board of Executive Officers established by the Board of Directors;
- XX. establish and inform the Board of Directors of the limits of individual approval authority of Executive Officers, respecting the limits of authority of the collegiate Board of Executive Officers established by the Board of Directors; and

- XXI. establish, based on the approval authority limits established by the Board of Directors for the Board of Executive Officers, the limits of approval authority along the hierarchical line of the administrative organization of Vale.

The Board of Executive Officers shall also: (i) establish the voting orientation to be followed by its representatives at general meetings or equivalent thereof in the companies, foundations and other entities in which Vale participates, directly or indirectly, respecting the investment opportunities and guidelines approved by the Board of Directors, as well as the respective budget, and always observing the limit of its approval authority with respect to, among other things, the indebtedness, the transfer or encumbrance of assets, the waiver of rights and the increase or reduction of equity interest; and (ii) to indicate for the Board of Directors' resolution the persons who are to be members of the management, advisory and fiscal bodies of the companies and entities in which Vale has a participation, including indirectly.

The Company's Board of Executive Officers has its own bylaws approved on December 9, 2013. This document is available for reference at the CVM website (www.gov.br/cvm) and the Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

1. Chief Executive Officer:

Under the terms of the Articles of Incorporation, the duties of the Chief Executive Officer are:

- a. chair the meetings of the Board of Executive Officers;
- b. exercise the executive management of Vale, thereby complying with the coordination and supervision of the activities of the other Executive Officers, ensuring that the deliberations and guidelines established by the Board of Directors and the general meeting are faithfully observed;
- c. coordinate and supervise the activities of the areas and business units that are directly subordinated to it;
- d. select and submit to the Board of Directors the names of candidates for Executive Officer positions to be elected by the Board of Directors, as well as to propose their dismissal;
- e. coordinate the decision-making process of the Board of Executive Officers, in order to prioritize consensual deliberations among its members. If the consensus is not obtained, the Chief Executive Officer may (i) withdraw the agenda item, (ii) articulate the formation of the majority, including by making use of the casting vote or, (iii) decide individually on matters of collegiate deliberation, in which case he shall inform the Board of Directors of the use of this prerogative at the first Meeting of the Board that occurs after the corresponding decision. Decisions relating to annual and multi-annual budgets and Vale's strategic plan and Annual Management Report shall be taken by a majority of votes, when considered by all Executive Officers, provided they include a favorable vote of the Chief Executive Officer;
- f. appoint, among the members of the Executive Board, the substitutes for the Executive Officers in cases of temporary impediment or absence;
- g. keep the Board of Directors informed of Vale's activities; and
- h. prepare, together with the other Executive Officers, the Annual Management Report and develop the financial statements.

2. Executive Officers:

Pursuant to the Articles of Incorporation, the following are attributions of the Executive Officers:

- a. perform the duties related to their area of operation;
- b. participate in the meetings of the Board of Executive Officers, contributing toward the definition of policies to be followed by Vale and reporting the issues of their respective area of operation;
- c. comply with and enforce the general orientation of Vale's business established by the Board of

- d. Directors in the management of their specific area of operation; and contract the services provided for in Article 22 of Vale's Articles of Incorporation, in compliance with the Audit Committee's determinations.

In addition, in accordance with the Articles of Incorporation, in compliance with the approval authority limits established by each Executive Director, decisions on matters affecting the specific area of their performance, provided that the matter does not affect the area of performance of another Executive Director, shall be taken by him or herself or together with the Chief Executive Officer, in matters or situations pre-established by the latter.

Non-Statutory Committees

For advisory purposes, the Board of Executive Officers has, on a permanent basis, six technical and advisory committees that are not formed by virtue of the Articles of Incorporation, namely: (i) Conduct and Integrity Committee; (ii) Business Risk Executive Committee - Operational; (iii) Business Risk Executive Committee - Geotechnics; (iv) Business Risk Executive Committee - Strategic, Financial and Cyber; (v) Business Risk Executive Committee - Compliance; (vi) Business Risk Executive Committee – Sustainability, Institutional Relations and Reputation (the latter five are jointly referred to as “Business Risk Executive Committees”).

The Conduct and Integrity Committee has its own bylaws. The Business Risk Executive Committees have their own unified bylaws, approved by the Board of Executive Officers.

(A) Business Executive Risk Committees:

The main duties of the Business Risk Executive Committees are described in item 5.1.b.iii of this Reference Form.

(B) Conduct and Integrity Committee:

The main tasks of the Conduct and Integrity Committee are: (i) to promote the continuous improvement of Ethical awareness across Vale, through the coordination of communication and training actions on topics related to the Company's Code of Conduct and Global Anti-Corruption Program; monitoring the evolution of the latter at Vale and across the Vale System's companies; (ii) to systematically review the effectiveness of ethics and integrity programs, including anti-corruption and money laundering issues; (iii) resolve on consequence management actions for confirmed complaints regarding its responsibility; (iv) approve and review the consequence management manual used by the Ombudsman to define, together with the responsible manager, the consequence management actions in confirmed cases related to the Ombudsman's authority; (v) support the Ombudsman's interpretation of topics of the Company's Code of Conduct; (vi) assess and resolve, at the request of Corporate Integrity, on situations that expose Vale to the risk of corruption, including those involving suppliers, customers and any third parties; (vii) support Corporate Integrity in establishing global guidelines for the implementation or consistent functioning of the Global Anti-Corruption Program; (viii) establish rules regarding the provision or receipt of gifts and hospitality on occasions not provided for in the Global Anti-Corruption Program documents.

Note that cases that may involve the Director of the Ombudsman's Office must be submitted to the Board of Directors by any member of the Committee. The Conduct and Integrity Committee supports the Ombudsman's Office in its responsibility for continually enhancing ethical awareness and the value of “Acting Correctly” in every company unit in the world. The Ombudsman reports to Vale's Board of Directors. The Conduct and Integrity Committee is composed of the Audit Officer, the People Chief Executive Officer, the Legal Chief Executive Officer, by the Executive Manager of Corporate Integrity and by the Ombudsman-general of Vale.

(c) Date of installation of the fiscal council, if it is not permanent, stating whether it has its own by-laws, and if so, indicating the date of its approval by the fiscal council, and if the issuer issues the bylaws, of sites on the web where the document can be consulted

Fiscal Council:

The Fiscal Council has been a permanent body since September 25, 1997, composed of at least three (3) and at most five (5) effective members and an equal number of alternates. The members of the Fiscal Council shall perform their duties until the first Annual Shareholders' Meeting to be held after their election, and may be reelected.

Vale's Fiscal Council is responsible for exercising the attributions provided for in applicable legislation in force, in Vale's Articles of Incorporation and regulated in its own Internal Regulations approved by its members, and shall also:

- A) supervise the acts of the Directors and verify compliance with their statutory and legal duties according to the different applicable laws in force;
- B) give its opinion on the Management's Annual Report, including any additional information deemed necessary or useful in its Opinion;
- C) review the financial statements for the year and give an opinion, meeting at least once a year with the External Auditor;
- D) analyze, at least quarterly, the balance sheets and other financial statements prepared by the Company and discuss them with the Management and the External Auditor;
- E) maintain communication between the Fiscal Council and the External Auditor, in accordance with applicable regulations;
- F) give an opinion on the proposals of the Management bodies to be submitted to the General Meeting, regarding the modification of the share capital, issue of debentures or subscription bonuses, investment plans or capital budgets, distribution of dividends, conversion, merger, consolidation or spin-off;
- G) report, through any of its members, to the administrative bodies, any errors, frauds, crimes or unlawful acts and irregularities which they become aware of and suggest useful and appropriate measures to the Company;
- H) call an Annual Shareholders' Meeting if the management bodies delay this call for more than a month and a Special Shareholders' Meeting whenever there are serious or urgent reasons, including on the agenda of the Assemblies such matters as deemed necessary;
- I) provide information on matters within their remit whenever requested by a shareholder or group of shareholders representing at least 5% of the share capital;
- J) review the report issued by the External Auditor, containing the material issues addressed to Management, regarding the accounting records, financial statements, internal control systems of Vale and its consolidated subsidiaries, together with the respective comments and responses of Management;
- K) prepare their annual budget, including, in particular, the contracting of services provided for in Article 6 of the Fiscal Council's Bylaws; and
- L) exercise its attributions regarding its supervisory power during the liquidation of the Company, according to the applicable legislation in force.

For the adequate performance of its functions, the Fiscal Council may request the Board of Executive Officers of the Company to hire the services of lawyers, consultants and analysts, and other resources that are necessary for the performance of its duties, in compliance with the budget proposed by the Fiscal Council and approved by the Board of Directors, without prejudice to the provisions of Paragraph 8 of Article 163 of the Brazilian Corporation Law.

The members of the Fiscal Council shall deliver, at least 30 days before the Annual Shareholders' Meeting, a statement on the management report and financial statements.

The Company's Fiscal Council has its own internal bylaws, whose review was approved by the members of the Fiscal Council, at a meeting held in May 29, 2020. This document is available for reference at the CVM website (www.gov.br/cvm) and the Company website (<http://www.vale.com/brasil/PT/investors/corporate-governance/board-committees-councils/Paginas/default.aspx>).

(d) If there are mechanisms for evaluating the performance of the board of directors and of each body or committee that reports to the board of directors, and, if so, indicate:

(i) the periodicity of the evaluation and its scope, indicating if it is made only in relation to the organ or also includes the individual evaluation of its members; (ii) methodology adopted and the main criteria used in the evaluation; (iii) how the results of the evaluation are used by the issuer to improve the functioning of this body; and (iv) whether external consulting or advisory services were contracted

The Board of Directors recognizes that a robust and constructive assessment process is an essential component of good corporate governance and effectiveness of the Board.

The Company's Board of Directors adopted the practice to carry out an annual performance evaluation, with the support of the People, Compensation and Governance Committee, for analysis and recommendation of the performance evaluation methodology, including any improvements, with an interim assessment covering only the aspects identified as likely to be improved in the previous evaluation. The Advisory Committees (excluding the Independent Extraordinary Advisory Committee) also carry out the biannual performance self-assessment, the result of which must be submitted to the Board of Directors. The directors are evaluated individually each year and the consolidated result of the evaluations is brought to the attention of the Board, while the individual results are shared with the Chairman of the Board for further discussion with each director. In 2019 and 2020, with the support of the People, Compensation and Governance Committee, Vale hired a specialized external consultancy firm to assess and develop the process of assessment of the effectiveness of the Board of Directors and Advisory Committees (excluding Independent Extraordinary Advisory Committees), as collegiate bodies and, individually, on the performance of their members, including the Chairman of the Board of Directors.

The scope of assessment of the Board and Advisory Committees covers, for each collective body, the fulfillment of its term of office, its composition and structure, its dynamics, its processes and supporting structures and its effective contributions to the execution of the Company's objectives, in addition to highlighting opportunities for improvement and providing members with feedback.

The scope of the directors' assessment, on the other hand, assesses aspects such as contribution, participation and engagement, skills and personal profile. The results are shared with the Chairman of the Board and each member held a feedback session with the Chairman of the Board and/or with the consulting firm.

The data used as inputs for this evaluation comprise the previous evaluation, national and international benchmarks, ESG practices and the specific context of Vale in relation to the shareholding composition, business objectives, among others, as well as practices adopted by organizations with a high level of corporate governance in Brazil and abroad (peer group). Evaluation questionnaires were also prepared for each of the collective bodies and directors.

The Board of Directors and the Advisory Committees had their evaluations completed by the directors, executive officers and members of the committees, while the directors carried out their self-evaluations and were evaluated by their peers. With all this information, in-depth interviews were carried out by the consultants with the respondents to the questionnaires and, based on all these inputs, the final evaluation was prepared, resulting in the identification of the positive aspects and those for improvement as to the effectiveness of the Board of Directors, in the definition of their degree of development and recommendations for improvement.

The Board's interim assessment allowed to compare its results with the previous year's assessment, identifying aspects that showed improvements, and highlighting aspects that could still be improved, with feedback to the Board. Based on these results, the People, Compensation and Governance Committee recommends an Action Plan to the Board, and then is applied the feedback process, with each director holding a meeting to discuss his assessment with the Chairman of the Board and/or with the consultancy firm.

The components and annual assessment process and the following:

1. Specialized external consultant

- Develop and conduct the evaluation process

2. Questionnaire for assessment of the Board of Directors, Directors and Executive officers provides their insights on:

- Execution of the Board's term of office based on its duties and responsibilities;
- Structure and composition of the Board of Directors e Advisory Committees based on behaviors and skills;
- Contributions to the business: strategy, governance, people, innovation, risk, compliance and finance;
- Dynamics of the Board of Directors based on the interaction between directors and officers;
- Support processes and structures.

For evaluation of the Advisory Committees, feedbacks were provided by the members of each committee, by the other directors and by the executive officers, covering the same dimensions as above.

For evaluation of the directors, each director made his own evaluation and was evaluated by their peers, covering the following factors:

- Contributions
- Participation and Engagement
- Skills and Personal Profile

3. Individual

Interviews

Performed by the consulting firm with directors and executive officers.

4. Analysis - Assess the effectiveness of the Board of Directors and Advisory Committees and compare the results with national and international benchmarks, identify their degree of development, as well as to analyze the evolution, in comparison with the previous assessment.

5. Feedback

Based on the results of the assessment of the collective bodies, an action plan is defined and changes in practices or procedures are considered and implemented, if applicable, for the evolution of the collective body's performance and individual performance.

The board members' feedback is held with the Chairman and/or external consultants.

In relation to the Fiscal Council, it carries out its performance self-assessment annually. In the self-evaluation process, the issues addressed at the monthly meetings held and in the parameters involving

financial statements and internal controls, management and internal audit responsibility, formation of the Fiscal Council, training and professional development of the members.

The members of the Executive Board, including the Chief Executive Officer, are evaluated annually in a formal process carried out by the Board of Directors. In 2020, the Individual Performance Evaluation process was reformulated, recounting procedural improvements (evaluations being made 100% online and in anonymous format), implementation of a broader concept (360° for CEO and 180° for Executive Officers) and the inclusion of Behavioral Performance Factor (BPF) with direct impact on the Annual Bonus, and can leverage or reduce the amount to be paid for the performance presented in the year. As developments of the evaluations, in addition to the reducing factor/lever of the Annual Bonus, meritocracy and differentiation actions of executives who present better performance can be implemented, as well as feedback and development actions, if there are executives with lower performance than desired. For more information on the effects of performance on executive compensation, see item 13 of this Reference Form.

12.2 - Rules, policies, practices, relating to general meetings

a. Call deadlines

Usually, Vale calls the General Shareholders' Meetings, by publishing the call notice, at least thirty days in advance, on the first call, and eight days in advance, on the second call, subject to the terms of the applicable legislation.

In addition, pursuant to article 8, paragraph 2, of Vale's Articles of Incorporation, the holder of the special class (Golden Shares) preferred shares will be formally called by Vale, through personal correspondence addressed to their legal representative, at least fifteen days beforehand to assess any matter subject to the right of veto provided for in article 7 of the Bylaws and described in item 18 of this Reference Form.

b. Authority

The Vale Annual Shareholder's Meeting has the authority as defined in Brazilian Corporate Law and in the B3 S.A. - Brasil Novo Mercado Regulation, Brazil, Bolsa, Balcão, under the exclusive authority of the Annual Shareholder's Meeting:

- I - amend the Articles of Incorporation;
- II - elect or dismiss, at any time, the members of the Company's Board of Directors and Fiscal Council, observing that the Board of Directors may elect and dismiss the Company's officers and assign them their attributions;
- III - receive the annual management accounts and to resolve on the financial statements presented by them;
- IV - establish the annual and global remuneration for the Company's members of the Fiscal Council and management.
- V - authorize the issue of debentures, observing that the Company's Board of Directors may authorize the issue of debentures in certain cases permitted by Brazilian Corporate Law and the Company's Articles of Incorporation;
- VI - suspend shareholder rights;
- VII - resolve on the valuation of assets with which the shareholder contributes to form the share capital;
- VIII - authorize the issue of profit-sharing bonds;
- IX - resolve on conversions, consolidations, mergers and spin-offs of the company, its dissolution and liquidation, elect and dismiss liquidators and judge the accounts; and
- X - Authorize administrators to declare bankruptcy and file for bankruptcy.

In addition, the Articles of Incorporation establish the election of both Chairman and Vice-Chairman of the Board of Directors as the responsibility of the Annual Shareholders' Meeting.

c. Addresses (physical or electronic) at which the documents related to the General Meeting will be available to shareholders for analysis

At Vale's headquarters, in Praia de Botafogo, 186, 18º andar, Botafogo, City of Rio de Janeiro, State of Rio de Janeiro, Brazil, and at Vale's electronic addresses (www.vale.com) at the addresses of the Brazilian Securities and Exchange Commission ("CVM") (www.gov.br/cvm), of B3 SA – Brasil, Bolsa, Balcão. (www.b3.com.br) and the Securities and Exchange Commission (www.sec.gov).

d. Identification and management of conflicts of interest

In accordance with Vale's Articles of Incorporation, the Board of Directors is responsible for resolving on policies to avoid conflicts of interest between Vale and its shareholders or management, as well as on the adoption of measures deemed necessary in the event of such conflicts, and the Audit Committee shall assess, monitor and recommend managers to correct or improve the company's internal policies, including the Related-Party Transactions Policy.

On January 28, 2021, the Board of Directors approved the revision of the Related-Party Transactions Policy, which is now referred to as "Related-Party Transactions and Conflict of Interests Policy" ("Policy"). This Policy establishes guidelines and principles to ensure that transactions with related parties and other situations with a potential conflict of interest involving Vale or its subsidiaries ("Related-Party Transactions"), are conducted under commutative and market conditions, excluding participation in the decision-making process of any person with potentially conflicting interests. Said Policy applies to Vale, its subsidiaries, and must be observed by its reference shareholders (defined according to the procedure described below), managers and employees, with any relationship with the Company by virtue of its Articles of Incorporation, or of an employment relationship with the Company, but not limited to the members of its Key Management Personnel (members of the Board of Directors, the Fiscal Council, the Advisory Committees and the Board of Executive Officers, Officers who report directly to Vale's Chief Executive Officer and the executives who report directly to the Company's Board of Directors), and members who are close to the Key Management Personnel's family members (spouse, partner, child, stepchild and dependents of the individual, his/her spouse or partner). For more information on the Related-Party Transactions and Conflict of Interest Policy, see item 16.1 of this Reference Form.

The Policy establishes the following procedure for identification of Vale's Reference Shareholder:

- a) The classification of a shareholder as a reference shareholder will be decided by the Executive Board of Finance and Investor Relations at least once a year, in accordance with the shareholder's performance to the Company, considering (i) his effective influence on the Company, which can occur by virtue of direct bonds or notorious relationship, (ii) the existence of common managers with the shareholder or a company that is part of its group, (iii) the existence of managers who are employees or occupy positions in the shareholder or its group ("Reference Shareholder"). This classification will be evaluated annually by the Audit Committee for approval.
- b) In the first 60 days following the end of each fiscal year, the Reference Shareholders must send the list of entities and persons that are found to be Related Parties under the terms of the Policy ("List"), without prejudice to the Reference Shareholders who, at their discretion, may inform the relevant Audit Committee of the cases in which they consider that there is a conflict of interest.
- c) Any updates to the List must also be informed to Vale within 60 days from the date on which the Related Party becomes aware of the occurrence.
In order to validate or complement the information received, the Compliance Executive Board will carry out consultations on the data reported by the Reference Shareholders, as well as those of the people identified by them, respectively in the annual Questionnaire for identification of related parties – Reference Shareholders (Annex II to Vale's Related-Party Transactions Policy) and any updates thereto.
- d) During any sale, quotation, purchase or contracting process, regardless of its kind or value, involving Vale or its subsidiaries, a list of Related Parties that consolidates all the information received as above should be consulted, in order to verify whether it is a potential Related-Party Transaction and, if so, such transaction must follow specific internal procedures for its approval by the governance bodies in accordance with the Policy.

In addition, Vale's shareholders or representatives of Vale's shareholders who are engaged in any conflict-of-interest situation at the General Meetings must observe the following procedures:

- I. the shareholder or representative of the shareholder must immediately express their conflicting private interest. If this is not done, another person may express the conflict;
- II. as soon as the conflict of interest has been identified in relation to a specific topic, the Vale shareholder or representative the shareholder involved will have access only to the documents or information on the matter disclosed to the market, under the terms of the legislation in force, and shall leave, including physically, from the discussions at the Annual Shareholders' Meeting, without neglecting their legal duties. The statement of conflict of interests, abstention and temporary removal should be recorded in the minutes.

If requested by the Chairman of the Board, the shareholders or representatives of the shareholders involved in a conflict of interest may participate partially in the discussion, in order to provide more information about the transaction with related party object of deliberation. In this case, they should be absent from the final part of the discussion.

e. Request of powers of attorney by the management to exercise the right to vote

Management does not have specific rules , policy or practice for requesting a public proxy to exercise voting rights at a Shareholders' General Meeting.

f. Formalities required for the acceptance of powers of attorney granted by shareholders, indicating whether the issuer requires or waives certification of the signature, notarization, consularization and sworn translation and if the issuer allows proxies granted by shareholders through electronic meansconsularisation

Shareholders who wish to attend General Meetings must present a valid identity document with photo (original or certified copy) and proof of ownership of shares issued by Vale, issued by the financial institution or custodian up to 4 business days before the date of the Meeting.

Any shareholder may appoint an attorney-in-fact, or more than one, as the case may be, to appear at meetings and vote on his behalf. In the event of representation, the shareholder must comply with the terms of Art. 126 of Company Law provided that the proxy must have been appointed less than one year prior, and qualify as a shareholder, administrator, lawyer registered with the Brazilian Bar Association or, still, be a financial institution, and the investment fund manager shall represent the condominium owners. In the case of power of attorney in a foreign language, this must be accompanied by corporate documents, when related to legal entity, and the instrument of delegation, duly translated into Portuguese by sworn translator, without need for notarization and consularization thereof. Note that documents in English and Spanish are also exempt from translation.

As provided in Circular Letter CVM/SEP/No.01/2021, shareholders **legal entities** may be represented at shareholders' meetings through their legal representatives or through duly constituted representatives, in accordance with the Articles of Incorporation of the company and with the rules of the Brazilian Civil Code, and in this specific case there is no need for the representative of the corporate shareholder to be a shareholder, a director of the company or a lawyer. Likewise, shareholders who are **investment funds**, as determined by the CVM Board under the scope of CVM Administrative Procedure No. RJ-2014-3578, may be represented at shareholders' meetings through legal representatives or through of representatives duly constituted by their manager or administrator, in accordance with their regulations.

In any case, it should be noted that shareholders who are **legal entities** and shareholders who are **investment funds** that are represented in the Shareholders' Meetings by proxy should, in addition to the power of attorney and the (i) proof of ownership of shares issued by Vale issued by the custodian financial institution or custodian agent up to 4 business days prior to the date of the Meeting and (ii) documents substantiating said representation, including the power of attorney and copy of the regulations of the fund in force, or minutes of the election of its administrators, and, in the case of investment fund, a copy (ii.a) of the Bylaws in effect, (ii.b) of the bylaws or articles of incorporation of its administrator or manager, as the case may be, and (ii.c) of the minutes of the election of the respective administrators.

In the case of a power of attorney in a foreign language, this must be accompanied by corporate documents, when referring to legal entity, and the power of attorney, all duly translated into Portuguese by sworn translator, without need for notarization and consularization of the same. Note that documents in English and Spanish are also exempt from translation.

In order to speed up the process of holding the Meetings, shareholders who are represented by a proxy may, at their sole and exclusive discretion, send the proxy documents within 72 hours prior to those Meetings, sent to the addresses stated in a timely manner. The Company points out that, despite the aforementioned deadline, a shareholder who appears prior to the beginning of the Meetings, with all the required documents in hand, may participate and vote, even though they have previously failed to send them to the Company.

The sufficiency of the representation documents will be verified before each Assembly is held, which is why shareholders are requested to arrive beforehand at the Assemblies so that the necessary documents can be verified in a timely manner to allow their participation.

For the Company's Annual and Special Shareholders' Meetings cumulatively held on April 30, 2021, exclusively digitally, as provided by CVM Instruction No. 622, of April 17, 2020 ("ICVM 622") and due to the new coronavirus pandemic, powers of attorney granted by shareholders through electronic means with digital certification, or digital copy of powers of attorney granted were accepted.

g. Formalities needed to accept a absentee voting form when sent directly to the company, stating whether the issuer requires or waives certification, notarization and consularization

Since 2017, the Company has adopted the possibility of each shareholder voting at general meetings by means of the instrument called an absentee voting form, in accordance with the regulations in force ("Absentee Voting Form").

Accordingly, pursuant to articles 21-a and following of CVM Instruction 481/09 ("ICVM 481"), the Company's shareholders may, in the cases contemplated in ICVM 481, as well as in the other Meetings in which the Company may at its discretion opt for the adoption of the Voting Form (as provided for in the Participation Manual for the respective Meeting, its voting instructions regarding the matters on the agenda by completing and sending the Absentee Voting Form duly made available by the Company at the meeting).

The Absentee Voting Form shall be made available by the Company to the shareholder within one month before the date set for the meeting, and may be reused exclusively in the cases provided for in ICVM 481.

The Absentee Voting Form must be accessed to print and complete beforehand, through the links previously stated in the Manual for the respective Meeting, and voting instructions must be sent by the shareholder:

- (a) directly to the Company, or
- (b) the custodian agent of the shareholder (if the shares are deposited in a central depository)
- or
- (c) to the financial institution contracted by the Company to carry out securities bookkeeping services.

The Absentee Voting Form must be **received** by the Company within 7 days before the date of the Meeting, as provided for in the CVM regulations or in a more beneficial period for the shareholder, should the Company so decide. Any vote bulletins received after the date will be disregarded.

Once the absentee voting deadline has expired, the shareholder may not change the voting instructions already sent, except in the respective Meeting, in person or through a regularly constituted proxy, by means of a specific request to disregard voting instructions sent via the Absentee Voting Form, before the respective subjects are put to a vote.

With regard to the formalities required to accept Absentee Voting Forms, when sent directly to the Company, the following will be required:

- b. original copy of the Absentee Voting Form duly filled-out, initialed (on all pages) and signed, observing that the Company will not require certification of the signature of the forms issued in Brazil nor the notarization of those issued outside Brazil;
- c. copies of the following documents:

Individuals

valid identity document with photo of the shareholder. The following documents may be submitted: (i) General Registration Identity Card (RG); (ii) Foreign Resident Identity Card (RNE); (iii) Passport; (iv) Professional Registration Card as a civil identity for legal purposes (e.g. OAB, CRM, CRC, CREA); or (v) National Driver's License (CNH).

Legal entities

documents proving representation, including the articles of incorporation and the minutes of the election of directors, and, in the case of an investment fund, a copy of (i) the fund regulations in force, (ii) the bylaws or articles of incorporation of its director or manager, as the case may be, and (iii) the minutes of the election of the respective administrators. If such documents are in a foreign language, they must be translated into Portuguese by a sworn translator, without requirement of notarization and consularization. Noted that English and Spanish documents are also exempt from translation.

valid identity document with photo of the legal representative. The following documents may be submitted: (i) General Registration Identity Card (RG) or Foreign Registration Card (RNE); (ii) Passport; (iii) Professional Registration Card as a civil identity for legal purposes (e.g. OAB, CRM, CRC, CREA); or (iv) National Driver's License (CNH).

The documents shall be sent to the following address:

Att: Vale - Investor Relations Executive Board
Praia de Botafogo, 186, 18º andar
Botafogo
Rio de Janeiro - RJ.
CEP: 22250-145

The shareholder may also, if preferred, anticipate sending the documents to the Company, sending the scanned copies of the Absentee Voting Form and the above mentioned documents to the e-mail vale.ri@vale.com.

Within 3 days of receipt of those documents, the Company will inform the shareholder, through the e-mail that was stated in the Absentee Voting Form, regarding its receipt and acceptance.

If the Absentee Voting Form is not properly filled out or accompanied by the supporting documents described above, it will be disregarded and that fact will be informed to the shareholder by means of an email sent to the address stated on the Absentee Voting Form, which will state the need to re-send the Absentee Voting Form or the accompanying documents (as long as there is sufficient time), describing the procedures and deadlines needed to correctly register the Absentee vote.

During the voting period, a shareholder may send new voting instructions to the Company, if deemed necessary, so that the last voting instruction submitted will be considered on the Company's voting map.

In case of differences between the Absentee Voting Form received directly by the Company and the voting instructions contained in the voting chart from the registrar for a same CPF or CNPJ number, the registrar's voting instruction shall prevail, in accordance with the provisions of the article 21-W, §2, of ICVM 481.

Vale points out that:

- It shall not consider, for the purpose of counting of the votes, the Ballots sent by shareholders that are not eligible to vote in the Meeting or in the respective deliberation;
- for purposes of calculating votes, consideration will only be given to the shares owned by each shareholder on the date of the respective Meeting, regardless of the date of submission of the Form, and if the shareholder sells shares between the date of sending of the Form and the date of the Meeting, the votes related to the shares sold will be disregarded; and
- the voting instruction from a CPF or CNPJ will be attributed to all shares held by that CPF or CNPJ, according to the shareholder positions provided by the registrar, on the date of the Meeting.

Exceptionally for the General Meetings held from April 2020 to April 2021, due to the pandemic of the new coronavirus, and considering the edition of ICVM 622, the Company adopted some flexibility measures for the use of BVD by shareholders:

- (i) exemption from forwarding the original Absentee Voting Forms (hard copies) and relevant documents, provided that said Absentee Voting Forms contain digital authentication of the shareholder or legal representative, as the case may be;
- (ii) for investment fund shareholders, admission of the presentation of a single Absentee Voting Form by manager, provided that the voting is identical for the funds represented, with the remaining documentation requirements maintained.

h. If the company provides an electronic system for receiving absentee voting forms or absentee participation

Exceptionally for the Ordinary and Extraordinary General Meetings held from April 2020 to April 2021, considering the crisis due to the decree of a pandemic of the new coronavirus (COVID-19), Vale considered that remote voting, pursuant to ICVM 481, as amended by ICVM 622, would be the safest and most accessible way for shareholders to exercise their right to vote in the resolutions contained in

the AGO/E Agenda. This mode of voting is effected through the Absentee Voting Form to be forwarded to Vale's bookkeeping company, custody agents or directly to Vale, as described above.

In order to encourage the use of the absentee voting, shareholders who chose to send the Absentee Voting Form directly to the Company were able to do so by sending digitalized copies of the Form and relevant documents by e-mail, to the electronic address vale.ri@vale.com. Accordingly, it was not necessary to forward the original (physical) form of the Absentee Voting Form and the pertinent documents provided that the said Absentee Voting Form contained digital authentication (certification) of the shareholder or the legal representative, as the case may be.

For investment fund shareholders, the submission of a single Absentee Voting Form per manager was permitted, provided that the voting was identical for the funds represented, maintaining the other documentation requirements.

In addition to the option to use the Absentee Voting Forms, the Company makes available a digital platform, as described in the specific documents of each meeting, so that shareholders can participate and/or vote remotely in the AGM/E. Shareholders were able to request a link to access the AGM/E upon request using the form available at Vale's website, and accompanied by the documents required for participation, as detailed in the Call Notice, Participation Manual, Management Proposal, in the Notices to Shareholders and/or Material Fact disclosed on the subject, as applicable. Access via digital platform is restricted to shareholders or their representatives or attorneys, as the case may be, who have been accredited under the terms described herein. Only the shareholders who submit the request and the necessary participation documents within the required period they are considered eligible for participation in the AGO/E.

The digital platforms adopted by the Company meet the requirements provided for in Art. 21-C, Paragraph 1 of ICVM 481, namely, (i) the possibility of manifestation and simultaneous access to documents presented during the AGO/E that have not been previously made available; (ii) the full recording, by the Company, of the AGO/E; and (iii) the possibility of communication between the shareholders present through the Chat option on the platform.

i. Instructions for the shareholder or group of shareholders to include proposals for deliberations, slates or candidates for members of the board of directors and of the fiscal council in the distance ballot paper

Pursuant to Article 21-L, of ICVM 481 the shareholder holding at least 0.5% of a certain type of shares issued by the Company may, subject to other established terms and conditions by the applicable regulations, request the inclusion of candidates for the board of directors and the fiscal council of the Company in the Ballot. In addition, in accordance with item II of said article, a shareholder holding at least 1.0% of a certain type of shares issued by the Company may, subject to the other time periods and conditions established by the current regulations, request the inclusion of proposals for resolution on the Absentee Voting Form provided on occasion of the Company's annual shareholders' meeting.

If a shareholder who complies with the requirements set forth in the previous paragraph wishes to include proposals for deliberations, slates or candidates for members of the board of directors or the fiscal council in the Absentee Voting Form, he shall submit such proposals by means of correspondence sent to the address item 12.2. g. above, together with the documents pertinent to the proposal, or by e-mail to the address vale.ri@vale.com.br, within the timeframe and other conditions established by current regulations.

j. If the company provides forums and pages on the internet to receive and share comments from shareholders on the rules of the meetings

Vale does not maintain forums and pages on the internet to receive and share comments from shareholders on meeting guidelines. Notwithstanding the foregoing, Vale makes available an electronic address (vale.ri@vale.com) through which it is possible to its shareholders to resolve doubts and obtain additional clarifications on matters included in the agenda.

Exceptionally at the Annual and Special Shareholders' Meetings, held from April 2020 to April 2021, an opportunity in which digital platforms were used for shareholders to participate and/or vote remotely during the AGO/E, there was the possibility, through such platform, of communication between the shareholders participating in the digital meetings, with a Chat option made available.

k. Other information required to participate as an absentee voter and to exercise the right to vote in their absence

The following information and procedures are to be followed for the purposes of exercising the right to vote in your absence through service providers:

i Exercise of voting right by sending completed instructions sent to the Company's bookkeeping agent

This option is exclusively for shareholders holding shares held by Banco Bradesco S.A. ("Bradesco") and not deposited in a central depository.

The holder of shares that are not deposited in a central depository - i.e., with B3 SA - Brasil, Bolsa, Balcão ("B3") - and that elects to exercise their right to vote in their absence through a service provider for the bookkeeping of shares issued by the Company, Bradesco, must go to any one of the Bradesco branches within 7 days prior to the date of the Meeting, during the local banking hours, with the completed, initialed and signed Ballot, as well as the documents listed in the table below, so that the information contained in the Ballot is transferred to Bradesco's systems.

Documents to be submitted to Bradesco Branches, together with the Ballot	Individual	Legal Entity	Investment Funds
CPF and Identity document with photo of the shareholder or his/her legal representative *	X	X	X
Restated and updated Articles of Association or Articles of Incorporation **	-	X	X
Document proving the powers of representation **	-	X	X
Restated and updated fund regulations	-	-	X

* Accepted identity document: RG, RNE, CNH, Passport and officially recognized professional registration card.

** For investment funds, documents of the manager and/or administrator, observing the voting policy.

Pursuant to Article 21-B of ICVM 481, the shareholder must transmit instructions for filling out the Bulletin to the bookkeeping agent no later than seven (7) days before the date of the Meeting.

ii Exercise of voting right by sending completed instructions sent to the custodian agents

This option is exclusively for shareholders holding shares held by the central depository - i.e., with B3. In this case, absentee voting shall be exercised by the shareholders in accordance with the procedures adopted by their respective custodian agents.

The shareholder who holds shares deposited with the B3 Depository Center and who elects to exercise his right to vote in their absence through service providers must send their voting instructions to his respective custodian agents, observing the rules determined by them, which, in turn, shall send these voting instructions to the B3 Central Depository.

In order to do so, shareholders should contact their respective custodian agents and verify that the procedures established by them for sending voting instructions through the Ballot, as well as the documents and information required by them to exercise such an option.

Pursuant to article 21-B of ICVM 481, the shareholder must transmit the instructions for completing the Ballot to his custodian agents within 7 days before the date of the respective Meeting, unless a shorter term is established by its custody agents.

Note that, as determined under art. 21-S of ICVM 481 the B3 Central Depository, upon receiving the shareholder voting instructions through their respective custodians, will disregard any instructions that differ from the same resolution that have been sent by the same CPF or CNPJ number.

iii Voting by holders of American Depositary Shares (ADSs)

Subject to the terms of each Meeting Manual, holders of ADSs may participate in the Meeting, in which they shall be represented by Citibank N.A. ("Citibank"), as depository financial institution, observing the terms and procedures established in the "Deposit Agreement" entered into with Vale. Citibank will send voting cards (*proxies*) to the holders of the ADSs, so that they can exercise their voting rights, and will be represented at the Meeting through their representative in Brazil, Banco Bradesco S.A.

Except for the above, there is no other information needed to participate as an absent voter and exercise the right to vote in absence.

12.3. Rules, policies and practices relating to the Board of Directors

a. Number of meetings held in the last reporting period, by number of annual and special meetings

The Board of Directors shall meet regularly at least eight times every year, and, specially, whenever called by its Chairman or, in his absence, by its Vice-Chairman, or by Directors, jointly, who represent 1/3 of the collective body.

The meetings of the Board of Directors are held at the Company's headquarters, and may exceptionally be held in a different venue, provided by teleconference, videoconference or other means of communication that can ensure the effective participation and authenticity of the vote.

In the reporting period ended December 31, 2020, the Company held 19 regular meetings and 10 special meetings of the Board of Directors.

b. If any, what are the provisions of a shareholder agreement that establishes a restriction or binds the exercise of voting rights of members of the Board of Directors

Not applicable, since there are no shareholders' agreements filed at the Company's headquarters.

c. Rules for identifying and handling conflicts of interest

In accordance with Vale's Articles of Incorporation, the Board of Directors is responsible for deliberating on policies to avoid conflicts of interest between Vale and its shareholders or management, as well as on the adoption of measures deemed necessary in the event of conflicts of this nature. It also provides that Related-Party Transactions must be carried out under commutative conditions, observing market conditions, as well as that Directors with interests potentially conflicting with those of the company must be excluded from the decision-making process.

On January 28, 2021, the Board of Directors approved the revision of the Related-Party Transactions Policy, which is now referred to as "Related-Party Transactions and Conflict of Interests Policy" ("Policy"). This Policy establishes guidelines and principles to ensure that transactions with related parties and other situations with a potential conflict of interest involving Vale or its subsidiaries ("Related-Party Transactions") are conducted under commutative and market conditions, excluding participation by the decision-making process of any person involved in potentially conflicting interests. For more information on the Policy, see item 16.1 of this Reference Form.

Under the terms of the Articles of Incorporation, the Audit Committee shall assess, monitor and recommend managers to correct or improve the company's internal policies, including the Related-Party Transactions Policy.

The Policy establishes the following procedure for identifying related parties who are involved in conflicts of interests:

- a) At the time of investiture or entering into an employment relationship with a member of the Key Management Personnel (members of the Board of Directors, Fiscal Council, Advisory Committees and Executive Board, Directors who report directly to Vale's Chief Executive Officer and the officers who report directly to the

- Company's Board of Directors), the member must complete the Annual Questionnaire for the Identification of Related and Conflicted Parties ("Questionnaire");
- b) The member of the Key Administration Personnel must fill in the Questionnaire completely and correctly, as well as accurately identify the Close Members of their Family (spouse, partner, child, stepchild and dependents of the person, their spouse or partner) and their respective data;
 - c) The member of the Key Management Personnel must inquire with the Close Members of their Family for the purpose of identifying any transactions between them and the Company, under the terms of the Policy;
 - d) The above procedure does not remove the obligation of each member of the Management's Key Personnel to fully observe the provisions of the Policy regarding situations involving a potential conflict of interest, even if it arises from relations with persons not previously informed through the Questionnaire.
 - e) In order to validate or complement the information received, the Compliance Executive Board will carry out enquiries regarding the data reported by the members of Vale's Key Management Personnel, as well as the persons identified by them in the Questionnaire.
 - f) During any sale, quotation, purchase or contracting process, regardless of its kind or value, involving Vale or its subsidiaries, a list of Related Parties must be consulted, which consolidates all the information received as above, in order to verify whether it is a Potential Related-Party Transaction and, if so, such transaction must follow specific internal procedures for its approval by the governance bodies in accordance with the Policy.

The mechanism described below was formalized within the scope of the Policy in case of conflicts of interest in the Meetings of the Board of Directors and of the Board of Executive Officers, applying the rules contained in Brazilian legislation to the hypotheses:

- the member of the Board of Directors or Board of Executive Officers of Vale who has a conflict of interest must immediately express their conflicting private interest. If this is not done, another person may express the conflict;
- as soon as the conflict of interests is identified in relation to a specific topic, the member of the Board of Directors or Board of Executive Officers of Vale involved shall not receive any document or information on the matter and shall leave, even physically, from the discussions, without neglecting their legal duties. The statement of conflict of interests, abstention and temporary removal should be recorded in the minutes;
- if asked by the Chairman of the Board of Directors or by the Chief Executive Officer, as the case may be, members of the Board of Directors or the Board of Executive Officers involved in a conflict of interest may participate partially in the discussion, in order to provide more information about the Related Party Transaction, object of resolution. In this case, they should be absent from the final part of the discussion.

The absence of a voluntary statement by a member of the Company's Key Management Personnel, in relation to the existence of a conflict of interest, will be considered a violation of the terms of the Policy, and such act should be brought to the attention of the Compliance Executive Board, who will recommend which penalties should be imposed to the relevant authorities of the Company's management.

In the event that Vale's administrators and employees become aware of any Related-Party Transaction that has not been submitted to the classification and resolution governance provided for in the Policy, before it is completed, the Related-Party Transaction shall be reported to the Compliance Executive Board, which will give notice to the requesting/proposing area responsible for the violation, in order to initiate the procedures established in the Policy.

d. If the issuer has a formally approved appointment policy and filling of positions of the board of directors, informing, if such is the case: (i) the body responsible for approving the policy, the date of approval and, if the issuer discloses the policy, computer site where the document can be viewed;

(ii) main characteristics of the policy, including rules regarding the process of nominating members of the board of directors, the composition of the board and the selection of its members

On September 10, 2020, the Board of Directors approved the Appointment Policy of Vale, the content of which is available for reference on the CVM website (www.gov.br/cvm) and the Company website (www.vale.com).

As provided for in the Nominating Policy, members are required to have the following minimum qualifications to occupy their positions: (i) not to be prevented by special law, or convicted of bankruptcy crime, malfeasance, bribery, demanding bribe, embezzlement, crime against the public economy, forgery or conversion, or any criminal penalty that prohibits, even temporarily, access to public offices; (ii) not to have been declared disabled by any act of the Securities and Exchange Commission; (iii) not to have exercised an elective mandate in the Executive or Legislative Branch over the last three (3) years; (iv) to have unblemished reputation; (v) be aligned and committed to Vale's mission, values and Code of Conduct; (vi) not to have any conflict of interest in relation to the Company's corporate structure, except, when applicable, upon waiver by the General Meeting; and (vii) not to occupy positions in companies that may be considered competitors in the market, especially in advisory, management or fiscal councils, except upon waiver by the General Meeting, and for the positions of the Executive Board.

Furthermore, The Appointment Policy provides that the following characteristics and skills should be considered: (i) outstanding professional experience; (ii) strategic vision; (iii) available time to exercise the role; (iv) communication skills; and (v) the ability to work as a team.

For the identification and evaluation of candidates for members of the Board of Directors, this body relies on advice from the Nominating Committee, which is responsible for (a) evaluating and recommending to the Board of Directors the adequacy to the best corporate governance practices in relation to the structure, size and composition of the body, as well as the balance among experiences, knowledge and diversity of its members' profile, considering the needs of the Board; and (b) identifying and recommending to the Board of Directors potential candidates for members of the body, to be submitted for election at the General Meeting, with the appointment of independent members and non-members of the Nomination Committee being forbidden.

The Appointment Policy also provides that (i) the Board of Directors may, based on the Nominating Committee's recommendation, disclose to the market the desirable profile of the candidate for an independent member of the Board who will best meet the Company's needs with regard to complementary skills and general knowledge, experiences, behaviors, cultural aspects, age group, gender, racial and ethnic group, in order to allow the Company to benefit from the plurality of arguments and a quality and safe decision-making process in the near term management; (ii) the Board of Directors must issue a statement regarding the adherence of each candidate to the position of member of the Board to the desirable profile disclosed and as to whether or not they meet the independence criteria and this Policy. Such statement will be included in the Shareholders' Meeting Participation Guide, in the items that provide for the Management Proposal; (iii) In the event of re-election of a member of the Board and of the Committees, the Nominating Committee or the People, Compensation and Governance Committee, as the case may be, should take into account the result of the latest annual evaluation of each body, the attendance rate of the member at the meetings, whose minimum percentage is 75%, except in case of sick leave, and the loss of independence or adherence to the minimum qualifications mentioned above, as applicable.

12.4 - Description of the clause committing to resolve conflicts through arbitration

Vale's Articles of Incorporation establish that the Company, its shareholders, directors and members of the Fiscal Council and of the Committees shall resolve, through arbitration, before the Market Arbitration Chamber, in the form of its regulation, any and all dispute or controversy that may arise between them, relating to or arising from their condition as issuer, shareholders, administrators and members of the Fiscal Council, especially arising from the application, validity, effectiveness, interpretation, violation and its effects, of the provisions contained in Law 6,385/76, Law 6,404/76, the Company's Articles of Incorporation, the rules issued by the National Monetary Council, the Central Bank of Brazil and the Brazilian Securities and Exchange Commission (CVM), as well as other rules applicable to the operations of the capital market in general, in addition to those contained in the Novo Mercado Regulations, the other regulations of B3 and the Novo Mercado Participation Agreement.

In addition, the members of the Board of Directors, Board of Executive Officers and the Fiscal Council taking of office is dependent on signing an investiture instrument, which shall include their compliance with the arbitration clause, as described above, referred to in Article 53 of the Company's Articles of Incorporation, as well as compliance with applicable legal requirements.

12.5 / 6 - Members and professional experience of the management and fiscal council

Name	Date of Birth	Management Body	Election date	Term of office
CPF or passport number	Profession	Elective position held	Investiture Date	Elected by the controller
Other positions and functions held in the issuer	Independent Member	Description of other position/function		
		Criterion used to determine independence	Number of Consecutive Terms	% of member's participation in meetings held after divestiture
Maria Luiza de Oliveira Pinto e Paiva	07/14/1963	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
129.079.488-06	Psychologist	Executive Sustainability Officer	03/17/2021	No
N/A	N/A	N/A	0	N/A
Luciano Siani Pires	02/10/1970	Belongs only to the Board of Executive Officers	03/15/2021	05/26/20214
013.907.897-56	Mechanical Engineer	Chief Financial and Investor Relations Officer	03/18/2021	No
Chief Financial and Investor Relations Officer He is the Coordinator of the Business Risks Executive Committee - Strategy, Financial and Cyber Risks (since August 2019)	N/A	N/A	6	N/A
Luiz Eduardo Fróes do Amaral Osorio	04/09/1974	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
026.000.007-80	Lawyer	Executive Officer of Institutional Relations and Communication	03/18/2021	No
Coordinator of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	N/A	N/A	2	N/A
Alexandre Gomes Pereira	7/24/1969	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
014.732.957.42	Mathematician	Executive Officer for Business Support	03/18/2021	No
N/A	N/A	N/A	2	N/A
Marcello Magistrini Spinelli	11/23/1973	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
197.378.918-30	Production Engineer	19 - Other Directors Executive Director of Ferrous.	03/18/2021	No
N/A	N/A	N/A	1	N/A

Carlos Henrique Senna Medeiros	08/01/1963	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
048.556.228-69	Engineer	19 – Other Directors	03/18/2021	No
		Executive Officer of Safety and Operational Excellence	1	N/A
Coordinator of the Business Risk Executive Committee - Operational (since August 2019) and the Business Risk Executive Committee - Geotechnics (since August 2019).		N/A		
Eduardo de Salles Bartolomeo	04/12/1964	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
845.567.307-91	Engineer	10 -Chief Executive Officer	03/18/2021	No
N/A	N/A	N/A	2	N/A
Alexandre Silva D'Ambrosio	08/01/1962	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
042.170.338-50	Lawyer	Executive Officer - Legal	03/18/2021	No
Coordinator of the Business Risk Executive Committee - Compliance, and member of the Conduct and Integrity Committee	No	N/A	1	N/A
Marina Barrenne de Artagão Quental	04/18/1964	Belongs only to the Board of Executive Officers	03/15/2021	05/26/2024
772.073.197-20	Psychologist	Executive Officer - People	03/17/2021	No
Member of the Conduct and Integrity Committee	No	No	1	N/A
Fernando Jorge Buso Gomes	06/06/1956	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
370.624.177-34	Bank Officer	21 - Vice President of the Board of Directors	05/03/2021	No
Member of the Financial Committee and Member of the People, Compensation and Governance Committee	No	N/A	4	100%
José Maurício Pereira Coelho	8/4/1966	Belongs only to the Board of Directors	05/03/2021	Until the 2021 Annual Shareholders' Meeting
853.535.907-91	Bank Officer	22 - Board of Directors (Permanent Member)	05/03/2021	No
Coordinator of the Finance Committee	No	N/A	2	100%
José Luciano Duarte Penido	8/3/1948	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
091.760.806-25	Mining Engineer	20 - Chairman of the Board of Directors	05/03/2021	No

Member of the People, Compensation and Governance Committee and Member of the Sustainability Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	2	100%
Eduardo de Oliveira Rodrigues Filho	8/20/1954	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
442.810.487-15	Civil Engineer	22 - Board of Directors (Permanent Member)	05/03/2021	No
N/A	No	N/A	7	100%
Roger Allan Downey	04/01/1967	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
623.291.626-34	Director	27 - Independent Administration Council (Permanent)	05/03/2021	No
Coordinator of the Operational Excellence and Risk Committee and Member of the Innovation Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	2	100%
Murilo César Lemos dos Santos Passos	07/06/1947	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
269.050.007-87	Chemical Engineer	27 - Independent Administration Council (Permanent)	05/03/2021	No
Member of the Finance Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	2	95%
Roberto da Cunha Castello Branco	07/29/2019	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
031.389.097-87	Executive and Economist	27 - Independent Administration Council (Permanent)	05/03/2021	No
Member of the Finance Committee and Coordinator of the Innovation Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	0	0%
Ken Yasuhara	01/02/1978	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
234.081.558-44	Bachelor's Degree in Business Administration	22 - Board of Directors (Permanent Member)	05/03/2021	No

Member of the Innovation Committee	No	N/A	0	0%
Mauro Gentile Rodrigues da Cunha	06/11/1971	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
004.275.077-66	Consultant	27 - Independent Administration Council (Permanent)	05/03/2021	No
Interim Coordinator of the Audit Committee and Coordinator of the People, Compensation and Governance Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	0	0%
Rachel de Oliveira Maia	30/01/1971	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
143.363.438-45	Accountant	27 - Independent Administration Council (Permanent)	05/03/2021	No
Member of the Sustainability Committee	Sim	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	0	0%
Marcelo Gasparino da Silva	2/13/1971	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
807.383.469-34	Lawyer	27 - Independent Administration Council (Effective)	05/03/2021	No
Member of the Operational Excellence and Risk Committee and Coordinator of the Sustainability Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	1	95%
Manuel Lino Silva de Sousa Oliveira	03/03/1952	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
	Economist	27 - Independent Administration Council (Permanent)		No
Coordinator of the Audit Committee and member of the People, Compensation and Governance Committee	Yes	Pursuant to Independence Criterion stated in the Regulation of Novo Mercado and §4º of Article 11 - Articles of Incorporation of Vale	0	0%
Lucio Azevedo	12/05/1958	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting

526.635.317-15	Railwayman	22 - Board of Directors (Permanent Member)	05/03/2021	No
Employed by Vale since 1985, as a machine operator, assigned to the Union of Workers in Railway Companies of the States of Maranhão, Pará and Tocantins.	No	N/A	3	86%
André Viana Madeira	07/04/1985	Belongs only to the Board of Directors	05/03/2021	Until the 2023 Annual Shareholders' Meeting
076.512.086-09	Mechanic/Instructor	23 - Board of Directors (Alternate)	05/03/2021	No
Member of the Operational Excellence and Risk Committee	No	N/A	0	0%
Marcelo Amaral Moraes	07/10/1967	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
929.390.077-72	Bachelor's Degree in Economics	45 - C.F. (Permanent) Elected by Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	18	100%
Marcus Vinícius Dias Severini	10/02/1957	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
632.856.067-20	Accountant	45 - C.F. (Permanent) Elected by Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	4	100%
Bruno Funchal	12/11/1978	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
082.654.487-83	Economist	44 - F.C. (Permanent) Elected for Preferred shareholders	05/03/2021	No
N/A	N/A	N/A	1	N/A
Cristina Fontes Doherty	05/26/1965	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
803.661.047-72	Economist	45 - C.F. (Permanent) Elected by Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	1	100%

Raphael Manhães Martins	02/08/1983	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
096.952.607-56	Lawyer	45 C.F (Permanent) Elected for Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	6	100%
Adriana de Andrade Solé	27/07/1960	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
378.627.316-20	Electrical Engineer	44 - C.F. (Alternate) Elected for Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	0	0%
Nelson de Menezes Filho	10/8/1956	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
756.878.878-49	Engineer	48 - C.F. (Alternate) Elected for Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	2	0%
Vera Lucia de Almeida Pereira Elias	11/08/1958	Fiscal Council	04/30/2021	Until the 2022 Annual Shareholders' Meeting
492.846.497-49	Accountant	48 - C.F. (Alternate) Elected for Minority Ordinary Shareholders	05/03/2021	No
N/A	N/A	N/A	0	0%

Professional Experience/ Statement of Possible Convictions/ Independence Criterion

BOARD OF EXECUTIVE OFFICERS

Maria Luiza de Oliveira Pinto e Paiva

129.079.488-06

Executive Officer of Sustainability of Vale (Elected in February 2021) Her main professional experiences in the last 5 years include: **(i)** Executive Officer of Sustainability of Suzano S.A. (since January 2019), publicly-held company in the forestry sector - paper and cellulose; **(ii)** Member of the Board of Directors of Brazilian Network of Global Compact, third-sector entity (since January 2020); **(iii)** Member of the Board of Directors of the Brazilian Business Council for Sustainable Development , third-sector entity (since August 2019); **(iv)** Executive Officer of Sustainability of Fibria S.A. (from March 2015 to January 2019), publicly-held company in the forestry sector - cellulose. Graduate in Psychology from the Pontifical Catholic University of the

State of São Paulo (PUC-SP), in December 1986. Mrs. Maria Luiza de Oliveira Pinto e Paiva has declared, for all legal purposes, that in the last 5 years she has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified her for the practice of any professional or commercial activity. Mrs. Maria Luiza de Oliveira Pinto e Paiva has declared that she is not a politically exposed person as defined in the applicable regulations.

Luciano Siani Pires

013.907.897-56

Executive Officer of Finance and Investor Relations and non-independent Coordinator of the Business Risks Committee - Strategy, Financial and Cyber Risks (since August 2019). He has held positions in the Company as **(i)** Member of the Information Disclosure Committee of Vale (from 2012 to 2020); **(ii)** Alternate Member of the Board of Directors (from 2005 to 2007) and Permanent Member of the Financial Committee (from 2012 to 2015); **(iii)** Global Officer of Strategic Planning (from 2008 to 2009 and in 2011); **(iv)** Global Officer of Human Resources (from 2009 to 2011), and **(v)** Executive Officer of Finance, Procurement, Shared Services and Investor Relations (from 2012 to 2013). He was also a permanent member of the Board of Directors of Valepar S.A. (from 2007 to 2008), a privately-held holding company that controlled Vale until 08/14/2017, when it was merged into Vale, and **(vi)** President of the Risk Executive Committee (from 2017 to July 2019). His main professional experience in the last 5 years also includes: (i) President of the Board of Directors of VLI S.A. (since September 2017), a logistics company; (ii) Member of the Board of Directors of the Mosaic Company (since January 2018), a company located in the United States of America, in the fertilizer segment. He holds a degree in mechanical engineering from the Pontifical Catholic University of Rio de Janeiro (PUC-RJ) since December 1991 and holds an MBA in Finance from Stern School of Business, New York University, completed in May 2001. Mr. Luciano Siani Pires has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by a final decision, at the judicial or administrative levels, that has suspended or disqualified him to practice any professional or commercial activity. Mr. Luciano Siani Pires has stated that he is not a politically exposed person as set out in the applicable regulations.

Luiz Eduardo Fróes do Amaral Osorio

026.000.007-80

He is Executive Officer of Institutional Relations and Communication of Vale (since March 2021) and non-independent Coordinator of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020). He was Executive Officer of Sustainability and Institutional Relations (from July 2017 to March 2021). His main professional experience in the last 5 years includes: **(i)** Vice-Chairman of Legal and Institutional Relations of CPFL Energia S.A. (from May 2014 to July 2017), a publicly-held company in the electric energy business; **(ii)** Member of the Board of Directors of CPFL Energias Renováveis S.A. (from October 2014 to January 2017), a publicly-held company in the electric energy business; **(iii)** Vice-Chairman of the Board of Directors of Instituto CPFL (from July 2015 to July 2017), an entity to encourage culture; **(iv)** Executive Officer for International Markets (from June 2012 to March 2014), a company in the electric energy sector; **(v)** Member of the Management Board of IBRAM (Instituto Brasileiro de Mineração); **(vi)** Member of the Advisory Board of the Columbia Center on Sustainable Investment at Columbia University; **(vii)** Member of WBCSD Council (World Business Council for Sustainable Development); **(viii)** Management positions in national and multinational companies such as AmBev, Diageo, Shell; **(ix)** Member of the Decision-Making Council of the Brazilian Beverage Association - ABRABE; Conar Ethics Committee and the Fiscal Council of the Health and Alcohol Information Center - CISA; **(x)** Director of the National Union of the Beer Industry - SINDICERV and Brazilian Association of Soft Drinks and Non Alcoholic Beverages Industries - ABIR. Graduated in Law from Pontifical Catholic University of Rio de Janeiro in December 1998 and got a Masters in Development Management from the American University of Washington, D.C. - School of International Service, completed in May 2003. Also having executive training in: Corporate Social Responsibility from Harvard Business School (USA); Identifying the Challenges and Building General Management Skills by Insead (France); From Strategy to Execution, Leading in the High Performance Organization by Wharton School (USA); and the Leadership in Corporate Counsel by the Harvard Law School (USA). Mr. Luiz Eduardo Fróes do Amaral Osorio has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction judged, at the judicial or administrative

levels, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Luiz Eduardo Fróes do Amaral Osorio stated that he is not a politically exposed person, as defined in the applicable regulations.

Alexandre Gomes Pereira

014.732.957.42

He is Executive Officer of Vale's Business Support Committee (since August 2017). He began his career as a Vale trainee in 1992, where he also held the positions of Information Technology Officer in Base Metals sector and Officer of Information Technology Global Services. His main professional experience in the last 5 years includes serving as Global Executive Officer of Information Technology for Vale Canada Limited (from October 2011 to July 2017), a subsidiary of Vale Canada. Graduated in Mathematics/Computer Science from the State University of Rio de Janeiro - UERJ in December 1991, obtained a postgraduate degree in Business Administration at the Fundação Dom Cabral, concluded in December 1992, and in Computer Network at the Federal University of Espírito Santo - UFES, completed in June 1996. He also holds an MBA from the University of São Paulo - USP, completed in December 2002. Mr. Alexandre Gomes Pereira has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by a final decision at a judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Alexandre Gomes Pereira has stated that he is not a politically exposed person, as defined in the applicable regulations.

Marcello Magistrini Spinelli

197.378.918-30

He is Vale's Executive Officer for Ferrous Products (since May 2019), where he already had held the following positions between 2002 and 2010: **(i)** Logistics Officer (from October 2010 to June 2011); **(ii)** Logistics Commercial Officer for Logistics (from February 2007 to October 2010); **(iii)** General Manager for Ports (from April 2005 to February 2007); **(iv)** General Manager for Commercial Logistics Contracts (from April 2002 to April 2005) and **(v)** Executive Officer for Ferrous Products and Coal (from May 2019 to June 2019). His main professional experiences over the last 5 years include: **(i)** Chief Executive Officer (from July 2011 to May 2019) of VLI Logística, a leading company in rail and maritime logistics operations in Brazil; **(ii)** Chief Executive Officer (from February 2007 to April 2019) of FCA – Centro Atlântica Railway; **(iii)** Member of the Board of Directors (from August 2011 to May 2019) of FNS – Ferrovia Norte e Sul; **(iv)** Chief Executive Officer (from November 2010 to May 2019) of VLI Multimodal S.A.; **(v)** Chief Executive Officer (from November 2010 to May 2019) of VLI Operações Ferroviárias Independentes; and **(vi)** Chief Executive Officer (from October 2011 to May 2019) of VLI Soluções S.A. Graduated in Production Engineering from USP in December 1996, completed an Extension Program in Marketing at ESPM – Escola Superior de Propaganda e Marketing in 2014, the Senior Leadership Program at Massachusetts Institute of Technology in 2005 and the Leadership Program at IMD Business School in 2007 Mr. Marcello Magistrini Spinelli has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcello Magistrini Spinelli has declared that he is not a politically exposed person as defined in the applicable regulations.

Carlos Henrique Senna Medeiros

048.556.228-69

Vale's Safety and Operational Excellence Executive Officer (since June 2019), and non-independent Coordinator of the Business Risks Executive Committee - Operational Risks (since August 2019) and of the Business Risks Executive Committee - Geotechnical Risks (since August 2019). His main professional experiences in the last 5 years include: **(i)** Chief Executive Officer for North and Central America for Ball Corporation (from May 2017 to June 2019), a North American Company in the sector of aluminum packaging, where he also has held the position of Chief Executive Officer For South America (between June 2016 to April 2017); **(ii)** Chief Executive Officer for South America of Rexam plc (from October 2012 and May 2016), a British company in the aluminum packaging business; and **(iii)** Chairman of the Board of Directors of Envases de Centro America (from September 2014 and June 2019), a company in Guatemala in the

aluminum packaging business. Graduated in Aeronautic and Mechanical Engineering at Technological Institute of Aeronautics in December 1985, completed a specialization course in Marketing at Escola superior de Propaganda e Marketing in December 1997, as well as the Senior Executive Program at Stanford University in August 2001. Mr. Carlos Henrique Senna Medeiros has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Carlos Henrique Senna Medeiros has declared that he is not a politically exposed person as defined in the applicable regulations.

Eduardo de Salles Bartolomeo

845.567.307-91

Reelected on April 29, 2019, as Chief Executive Officer, and previously elected as Acting Chief Executive Officer on March 02, 2019. In addition, he was Permanent Member of the Information Release Committee (from April 2019 to February 2020), was Executive Director of Base Metals (from January 2018 to March 2019), Member of the Finance Committee (from April 2017 to December 2017) and Coordinator of Vale's Governance, Operational Excellence and Risk Committee (formerly Compliance and Risk Committee) (from November 2017 to December 2017) and also served as a Member of Vale's Board of Directors (from September 2016 to December 2017), Director of Logistics Operations (from January 2004 to June 2006), Executive Officer (from February 2007 to May 2012) and member of the Strategic Committee (from September 2016 to April 2017). His main professional experience in the last 5 years includes: **(i)** CEO of Nova Transportação do Sudeste - NTS S.A. (from April to December 2017), a gas company; **(ii)** Member of the Board of Directors of Logistic Intermodal Logistics (since April 2016), publicly-held corporation in the logistics sector; **(iii)** CEO of BHG - Brazilian Hospitality Group (July 2013 to July 2015), a hospitality company; and **(iv)** Member of the Board of Directors of Arteris S.A. (April 2015 to April 2017), a publicly-held company in the road concession sector. Graduated in Metallurgical Engineering from the Fluminense Federal University in January 1988, having an MBA from Katholieke Universiteit Leuven - Belgium, completed in June 1993 and an MBA from the Massachusetts Institute of Technology - USA, completed in June 2013. Mr. Eduardo de Salles Bartolomeo has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by a final decision, at the judicial or administrative level, that has suspended or disqualified him to practice any professional or commercial activity. Mr. Eduardo de Salles Bartolomeo has declared that he is not a politically exposed person, as set out in the applicable regulations.

Alexandre D'Ambrosio

042.170.338-50

Mr. Alexandre Silva D'Ambrosio is Vale's Legal Executive Officer, where he also holds the positions of a non-independent member of the Conduct and Integrity Committee and the Business Risk Executive Committee - Compliance. His main professional experiences in the last 5 years include: **(i)** Vale's Executive Vice-President (Statutory) (since June 2018) **(ii)** Member of the Board of Directors of Vale Niueville Caledonie (since June 2018), **(iii)** Member of the Board of Directors of PT Vale - Indonesia (since June 2018); **(iv)** Vale's General Counsel (between March 2018 and March 2021), **(v)** Executive Vice-President (Statutory) of Banco Santanter S.A. (between March 2016 and March 2018), **(vi)** General Counsel and Global Executive Vice President (Statutory Officer) of Votorantim Group – holding (between June 2013 and March 2016). Graduated in Law from the University of São Paulo (December 1984), completed law Lato Sensus degree from Harvard Law School, Cambridge (1986) and Juris Doctor from National Law Center, George Washington University (1989). Mr. Alexandre Silva D'Ambrosio has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Alexandre Silva D'Ambrosio has stated that he is not a politically exposed person, as set out in the applicable regulations.

Marina Barrenne de Artagão Quental

772.073.197-20

Mrs. Marina Barrenne de Artagão Quental is Vale's Executive People Officer, where she also holds the positions of a non-independent member of the Conduct and Integrity. Her main professional experiences in the last 5 years include: **(i)** Vale's People Officer (since November 2017); **(ii)** Raízen Human Resources Vice President, a company in the energy and agribusiness sector, a joint venture between Royal Dutch Shell and Cosan (between April 2011 and November 2017), **(iii)** Vice-President of the Brazilian Association of Human Resources RJ (since

December 2014). Graduated in Psychology from PUC/RJ (in December 1986), completed an MBA from Dom Cabral Foundation (December 2003). Mrs. Marina Barrenne de Artagão Quental has declared, for all legal purposes, that in the last 5 years she has not received any criminal conviction, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified her for the practice of any professional or commercial activity. Mrs. Marina Barrenne de Artagão Quental stated that she is not a person politically exposed, as defined in the applicable regulations.

BOARD OF DIRECTORS

Fernando Jorge Buso Gomes

370.624.177-34

Member and Vice President of Vale's Board of Directors (since May 2021) (being that he has already held the position of Vice President of this body since January 2017, and a Member since April 2015), Non-independent member of the Financial Committee (since May 2021) and Non-independent member of the People, Compensation and Governance Committee (since May 2021) at Vale, where he also held the positions of Coordinator of the Financial Committee (since December 2019 to April 2021), of which he was already a member (since April 2015) and Coordinator of the People, Compensation and Governance Committee (from May 2019 to April 2021), and where he also held the positions of Coordinator of the Governance and Sustainability Committee (from April 2015 to October 2017), member of the Executive Development Committee (from April 2015 to October 2017), member of the Strategic Committee (from April to October 2017), Coordinator of the Sustainability Committee (from November 2017 to April 2019) and member of the People Committee (from November 2017 to April 2019). His main professional experience over the last 5 years includes: **(i)** Vice-Chairman of the Board of Directors of Valepar S.A. (from January to August 2017), a privately-held Holding Company that exercised control of Vale up to 08/14/2017, when it was merged into Vale, where he also held the position of Officer (from April 2015 to August 2017) and Member of the Board of Directors (from April 2015 to August 2017; **(ii)** Chief Executive Officer (since April 2015) and Investor Relations Officer (since April 2015), Member of the Board of Directors and Vice President of the Board of Directors (between April 2018 and October 2019) and President of the Board of Directors (between October 2019 and April 2020) of Bradespar S.A., a publicly-held company; **(iii)** Member of the Board of Directors of 2B Capital S.A. (from November 2014 to December 2018), *private equity* investment management company, where he also held the position of **(iv)** Chief Executive Officer (from March 2015 to June 2016) and **(v)** Officer (from June 2016 to December 2018); **(vi)** Chief Executive Officer of Antares Holdings Ltda., non-financial institution holding company (from April 2015 to April 2017); **(vii)** Chief Executive Officer of Brumado Holdings Ltda. (from April 2015 to April 2017); and **(viii)** Officer of Millennium Security Holdings Corp., Holding Company (since October 2015). Graduated as a Bachelor of Economics from Bennett Integrated Colleges in June 1979. Mr. Fernando Jorge Buso Gomes has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, nor been convicted in any administrative proceeding of the Brazilian Securities Commission, or convicted by a final decision at the judicial or administrative level, which would have suspended or disqualified him for the practice of any professional or commercial activity. Mr. Fernando Jorge Buso Gomes stated that he is not a politically exposed person, as defined in the applicable regulations.

José Maurício Pereira Coelho

853.535.907-91

He is a Permanent Member of the Board of Directors (being that he held the position of President of this board from May 2019 to April 2021) and non-independent Coordinator of the Finance Committee (since May 2021) of Vale, where he also held the positions of Member of the People, Compensation and Governance Committee (from May 2019 to April 2021) and Member of the Nominating Committee (from July 2020 to April 2021). His main professional experience over the last 5 years include: **(i)** Chief Executive Officer (from January 2017 to July 2018) and member of the Board of Directors (from 2017 to 2018) of BB Seguridade Participações S.A., a security company; **(ii)** Vice President of Financial Management and Investor Relations (from February 2015 to January 2017) and Finance Executive (from January 2012 to February 2015) of Banco do Brasil S.A., a publicly traded company in the financial sector; **(iii)** Member of the Board of Directors and Chairman of the Board of Directors of BB Mapfre SH1 Participações S.A., an insurance company (from January 2017 to July 2018); **(iv)** Member of the Board of

Directors of CNSeg - National Confederation of Social Insurance Companies, a company in the commercial banking sector (from January 2017 to July 2018); **(v)** Member of the Board of Directors of IRB - Instituto de Resseguros do Brasil, a publicly-held reinsurance company (from March 2017 to March 2019); **(vi)** President of the Employees' Pension Fund of Banco do Brasil - Previ (since July 2018), a company in the private pension sector; **(vii)** Member of the Board of Directors (since 2015) and Member of the Audit and Risk Committee (since 2019) of Ultrapar Participações S.A., a company in the distribution of fuels, chemicals, logistics for liquid bulk and pharmaceutical retail; and **(viii)** Chairman of the Deliberative Board of Abrapp - Brazilian Association of Closed Supplementary Pension Entities, a closed private pension fund company (since September 2018). Graduated in Accounting Sciences from UNIGRANRIO in December 1990, completed an MBA in Finance and Capital Markets from FGV-RJ in March 1999, and completed a Specialization in Governance from FGV-RJ in 2004. Mr. José Maurício Pereira Coelho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Mauricio Pereira Coelho has declared that he is a politically exposed person, due to having held a statutory position in Banco do Brasil S.A. from 2009 to 2017 and BB Seguridade Participações S.A. from 2017 to 2018.

José Luciano Duarte Penido

091.760.806-25

He is a independent Member and President of the Board of Directors (being that it has been a member of this body since May 2019), Member of the People, Compensation and Governance Committee (since May 2021) and Member of the Sustainability Committee (since May 2021), where he also held the position of Coordinator of the Sustainability Committee (from May 2019 to April 2021) and Member of the Compliance and Risk Committee (from May 2019 to April 2021). His main professional experience over the last 5 years includes: **(i)** Chairman of the Board of Directors of Fibria Celulose (between September 2009 and January 2019), a publicly-held company in the field of planted forests and pulp and paper production; **(ii)** Independent member of the Board of Directors (from May 2017 to April 2019) of Banco Santander Brasil, a publicly-held financial institution; **(iii)** Independent member of the Board of Directors of Copersucar S.A. (since 2013), a private company in the logistics and commercialization of sugar and ethanol; **(iv)** Independent member of the Board of Directors of Química Amparo Ypê (from 2013 to December 2019), a private company in the production and marketing of household cleaning products; **(v)** Independent member of the Board of Directors of the Human Talent Committee and the Audit and Risk Committee of Algar S.A. (since 2015), a family holding with businesses on telecommunications, farming, hotel and entertainment sectors. Graduated in Mining Engineering from the School of Engineering of the Federal University of Minas Gerais (December 1970). Mr. José Luciano Duarte Penido has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Luciano Duarte Penido has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. José Luciano Duarte Penido is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Eduardo de Oliveira Rodrigues Filho

442.810.487-15

He is a Permanent Member of the Board of Directors (since May 2019 where he also holds the positions of Member of the Operational Excellence and Risk Committee (since May 2021) and Member of the Sustainability Committee (since May 2021), where he also held the position of Coordinator of the Operational Excellence and Risk Committee (from May 2019 to April 2021), and where he also held the positions of member of the Governance and Sustainability Committee (from April 2015 to October 2017), Alternate Member of the Board of Directors of Vale SA (from 2008 to 2018), Member of the Financial Committee (from April 2011 to April 2019) and Member of the Sustainability Committee (from November 2017 to 2019). His main professional experiences in the last 5 years include: **(i)** Effective Member of the Board of Directors (from May 2014 to August 2017) of Valepar S.A., private holding company that exercised control of Vale until 08/14/2017, when it was merged into Vale; and **(ii)** Managing Partner of CWH Consultoria em Gestão Empresarial (since May 2008), a consulting firm. Graduated in Civil Engineering

from the Pontifical Catholic University of Rio de Janeiro (PUC-RJ) in July 1978 and holds a postgraduate degree in Transporting Planning from the University of Westminster, completed in October 2000. Mr. Eduardo de Oliveira Rodrigues Filho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Eduardo de Oliveira Rodrigues Filho declared that he is not a politically exposed person, as set out in the applicable regulations.

Roger Allan Downey

623.291.626-34

Independent Member of Vale's Board of Directors (since December 2019), Coordinator of the Operational Excellence and Risk Committee (since May 2021) and Member of the Innovation Committee (since May 2021) at Vale, where he has also held the positions of **(i)** Member of Vale's Operational Excellence and Risk Committee (from January 2020 to April 2021), **(ii)** Executive Officer responsible for coal, fertilizers and strategy business area (from May 2012 to June 2017); and **(iii)** Strategic Marketing Manager for the Commercial Ferrous Products area (from October 2002 to August 2005). His main professional experiences in the last 5 years include: **(i)** Chief Executive Officer of PrimaSea – Fertilmar Mineração e Navegação SA (between 2019 and 2020), a Brazilian company in the sectors of fertilizers and animal nutrition, where he also holds the position of **(ii)** Member of the Board of Directors (since October 2018) of PrimeSea - Fertilmar; and **(iii)** Chief Executive Officer of Vale Fertilizantes S.A. (from June 2012 to June 2017), company that at the time was a member of Vale's economic group, in the fertilizer sector. Graduated in Business Administration from the Australian National Business School in February 2003 and completed a master's degree in Business Administration at the University of Western Australia in April 2003. Mr. Roger Allan Downey has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Roger Allan Downey has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Roger Allan Downey is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Murilo César Lemos dos Santos Passos

269.050.007-87

He is a independent Member of Vale's Board of Directors (since December 2019), and member of Vale's Finance Committee (since May 2021). His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of Odontoprev S.A., a company in the dental plans sector (since April 2008); **(ii)** Member of the Board of Directors of São Martinho S.A., a company in the sugar-energy sector (since 2020), where he also held the position of Member of the Board of Directors (from 2006 to 2020); **(iii)** Member of the Board of Directors of Suzano Holding, a holding company in the paper and cellulose sector (from October 2018 to April 2021); **(iv)** Chairman of the Board of Directors of CPFL Energia, a company in the power sector (from 2010 to 2017); **(v)** Member of the Board of Directors of CCR S.A., a Brazilian infrastructure, transport and services concessions company (from 2017 to 2018); **(vi)** Member of the Management Committee of Suzano S.A., a company in the pulp and paper sector (from 2006 to 2019; and **(vii)** Chairman of the Board of Directors of Tagma Gestão Logística, a company in the logistics sector (since April 2017). Graduated in Chemical Engineering from the Federal University of Rio de Janeiro in July 1971. Mr. Murilo César Lemos dos Santos Passos has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Murilo César Lemos dos Santos Passos has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Murilo César Lemos dos Santos Passos is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Roberto da Cunha Castello Branco

031.389.097-87

He is a Permanent and Independent Member of the Board of Directors of Vale (since May 2021), Independent Member of the Financial Committee (since May 2021) and Independent Coordinator of the Innovation Committee (since May 2021) at Vale, where he held the position of Officer (between 2003 and 2014). His main professional experience in the last 5 years include: **(i)** Chairman and member of Petrobras' Board of Directors (from May 2015 to April 2016 and from January 2019 to April 2021), publicly traded company in the natural gas and oil exploration and production sector; **(ii)** Director of the Study Center for Economic Growth and Development of Getulio Vargas Foundation (from August 2014 to December 2018); **(iii)** member of the Board of Directors of Invepar S.A. (from May 2017 to December 2018), private manager of urban mobility and transport infrastructure; **(iv)** Member of the Board of Directors of GRU Airport, airport manager (between May and December 2018); and **(v)** Member of the *CEO Steering Committee da Oil and Gas Climate Initiative* (OGCI) and *US Brazil CEO Forum* (from January 2019 to April 2021). Elected by Exame magazine in 2021 as one of the 100 best business leaders in Brazil, Best CEO of the Latin American Oil and Gas Industry, Latin Finance 2020, Economist of the Year in Minas Gerais in 2019, Mercado Comum Magazine. Graduated in Economics from the School of Economics and Administration of Rio de Janeiro in December 1971, holds a master's degree in Economics from the Graduate School of Economics (EPGE) of Fundação Getulio Vargas (FGV), concluded in July 1974, doctorate in Economics from the School of Post Graduate in Economics (EPGE) of Getulio Vargas Foundation (FGV), completed in July, 1977, and *Post Doctoral Fellow* pela *University of Chicago*, completed in August, 1979. Also having executive training in *Sloan School of Management* (MIT), *International Institute For Management Development* (IMD) and *Chicago Booth School of Business*, completed in 2004, 2007 and 2012, respectively. Mr. Roberto da Cunha Castello Branco has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Roberto da Cunha Castello Branco stated that he is a politically exposed person, as set out in the applicable regulations, due to his exercise of the position of Chief Executive Officer of Petrobras, a company controlled by the Federal Union, between January 2019 and April 2021. Mr. Roberto da Cunha Castello Branco is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Listing Regulation and §4º of Article 11 of Vale's Articles of Incorporation of Incorporation.

Ken Yasuhara

234.081.558-44

He is a Member of the Board of Directors (since May, 2021), and non-independent Member of the Innovation Committee (since May 2021) at Vale, where he already held the position of member of the Finance Committee (from July, 2020 to April, 2021) and of Alternate Member of the Board of Directors (between December, 2019 and April, 2021). His main professional experiences in the last 5 years include: (i) Officer, General Manager at Mitsui & Co. (Brasil) S.A. (Minerals and Metals Resources Unit) (since October 2019), a company headquartered in Brazil in the retail business, where he has previously held the position of **(ii)** Officer, Deputy General Manager, Minerals and Metals Resources Unit, Brazil (between 2018 and 2019); and **(iii)** Alternate Member of the Board of Directors, member of the Finance Committee and Technical Committee of Alumina do Norte, Brazil (between June 2018 and September 2019), a Brazilian mining company. Graduated in Policy Management from Keio University in Japan, in March 2001. Mr. Yoshitomo Nishimitsu has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Ken Yasuhara has declared that he is not a politically exposed person as defined in the applicable regulations.

Mauro Gentile Rodrigues da Cunha

004.275.077-66

Independent Member of Vale's Board of Directors (since May 2021), where he also holds the positions of Independent Member and Independent Interim Coordinator of the Audit Committee and Independent Coordinator of the People, Compensation and Governance Committee (since May 2021). His main professional experience in the last 5 years include: **(i)** Chairman of the Board of Directors of Caixa Econômica Federal (between March, 2019 and October, 2020); **(ii)** Chairman of AMEC - Association of Capital Market Investors (between March, 2012 and August, 2019); **(iii)** Member of Eletrobras' Board of Directors, publicly traded company in the electricity sector (between March, 2018 and March, 2021) having also chaired the Statutory Audit Committee (between May, 2018 and March, 2021); **(iv)** Member of the Board of Directors of brMalls, shopping centers manager (since April, 2016), where he also holds the position of Chairman of the Audit and Risks Committee; **(v)** Member of the Board of Directors of Totvs, company in the sector of software development (since April, 2016), where he also holds the position of member of the Audit Committee and People and Compensation Committee; **(vi)** Member of the Board of Directors of Klabin, paper producer and exporter (since April, 2019); **(vii)** Member of the Board of Directors of Mahle Metal Leve, publicly-held company operating in the auto parts sector (between April, 2015 and June, 2017); and **(viii)** Member of the Board of Directors of Cia Energética do Estado de São Paulo (between April, 2013 and April, 2017). In addition, he was an Independent Member of the Board of Directors of Petrobras, a publicly-held company in the oil and natural gas exploration and production sector (between 2013 and 2015) and Chairman of the Board of Directors of IBGC, a non-profit organization focused on the development of best corporate governance practices in Brazil (between 2008 and 2009). Graduated in Economics from the Pontifical Catholic University of Rio de Janeiro (PUC-RJ) in December 1992 and holds an MBA from *Chicago Booth School of Business*, completed in June, 1998. Mr. Mauro Gentile Rodrigues da Cunha has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Mauro Gentile Rodrigues da Cunha has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Mauro Rodrigues da Cunha is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Listing Regulation and §4º of Article 11 of Vale's Articles of Incorporation of Incorporation.

Rachel de Oliveira Maia

143.363.438-45

Independent member of Vale's Board of Directors (since May, 2021), where she also holds the position of independent member of the Sustainability Committee (since May 2021). Her main professional experiences include: **(i)** Founder and CEO of RM Consulting, focusing on S of ESG and Leaderships (since April, 2018); **(ii)** CEO of Lacoste S.A. (Brazil), luxury clothing company (between November, 2018 and October, 2020); **(iii)** Senior financial controller at 7-Eleven, a convenience store segment (from 1991 to 03/1998); **(iv)** Senior Business Controller at Novartis Pharmacy, pharmaceutical sector (between March 1998 and April 2001); **(v)** CFO of Tiffany & Co. Brasil, jewelry sector (between July 2002 and October 2009); **(vi)** CEO of Pandora Brasil, jewelry sector (between April, 2010 and April, 2018); **(vii)** Member of the General Council of the Danish Consulate (from April, 2014 to November, 2020); **(viii)** Member of the Danish Chamber of Commerce (from April 2014 to November 2020); **(ix)** Member of the Committee of the Chairman of the American Chamber of Commerce (from April 2016 to October, 2019); **(x)** Member of the Institute for the Development of Retail (from 2016 to 2018); **(xi)** Member of the Group of Brazilian Women (since 2020); and **(xii)** Member of the Economic and Social Committee of the Development Council (since 2018). She volunteered for 8 years for needy families in many of Brazil's most challenging regions and in the Society of Vincentians (from 1991 to 1999). Rachel recently founded, in December 2018) a non-profit organization, CAPACITA-ME, which trains students and professionals from underprivileged communities in São Paulo. Graduated in Accounting from University Center - FMU in January, 2017 and holds a MBA from Fundação Getulio Vargas (FGV), completed in 2018. She also completed the Course of Negotiation and Leadership by means of the Executive Education Program from Harvard Business School in June, 2014 and General Management training from Victoria University, in British Columbia, Canada, in 2001. Mrs. Rachel de Oliveira Maia has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Rachel de Oliveira Maia has declared that he is not a politically exposed person as defined in the applicable regulations. Mrs. Rachel de Oliveira

Maia is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Marcelo Gasparino da Silva

807.383.469-34

He is an independent member of the Board of Directors (since April, 2020), independent member of the Operational Excellence and Risk Committee (since May 2021) and independent Coordinator of Vale's Sustainability Committee (since May 2021), where he also held the positions of member of the Sustainability Committee (between July, 2020 and April, 2021) and an independent and alternate member of the Board of Directors (between May 2019 and April 2020) and alternate member of the Board of Directors (between May, 2016 and April, 2017) of Vale. His main professional experiences in the last 5 years include: **(i)** Board member and member of the Investment and Minority Committees (since April 2021) at Petróleo do Brasileiro SA - Petrobras, a publicly traded company in the petrochemical and energy sector, where he also held the position of Tax Advisor (from April 2018 to April 2021); **(ii)** Member of the Board of Directors (from April 2017 to January 2020) of Kepler Weber SA, a publicly-held company in the industry and trade of products and raw materials related to metallurgy, import and export, service provision, trade in products for the agro-industry, **(iii)** Member of the Board of Directors (since 2016) of Companhia Energética de Minas Gerais - CEMIG, a publicly traded company in the energy distribution business, where he also holds the position of the Strategy and Finance Committee (since 2016) ; **(iv)** Chairman of the Board of Directors (since April 2017) of ETERNIT S.A., a leading publicly-held company in the roofing and other segments as construction solutions and launched in 2020 the first Brazilian photovoltaic tile, Tégula Solar; **(v)** Board member of Companhia Catarinense de Águas e Saneamento - CASAN, a company in the sanitation sector (from May 2019 to February 2020); **(vi)** Member of the Board of Directors of Centrais Elétricas Brasileiras de Santa Catarina - CELESC, holding company in the energy sector (from 2011 to 2014 and from April 2018 to April 2019); **(vii)** Fiscal Council Member of Petróleo Brasileiro S.A - Petrobras, a publicly traded company in the petrochemical and energy sector (from April 2017 to April 2018); **(viii)** Member of the Board of Directors of Battistella S.A, a publicly traded company in the port logistics, heavy vehicles and forestry sector (from April 2016 to April 2017); **(ix)** Board member (from 2012 to 2014 and from April 2016 to April 2017) of Eletrobras, a publicly-held company in the electricity sector; **(x)** Chairman of the Board of Directors (from April 2015 to April 2016, being a member from 2012 to 2015) of Usiminas, a publicly-held company in the steel sector; **(xi)** Member of the Board of Directors (between April 2015 and April 2016) of Bradespar, a publicly-held company in the investment sector; **(xii)** Member of the Board of Directors, Chairman of the Related Parties Committee and member of the Audit Committee of Eletropaulo, an energy distribution company (between April 2016 and April 2018); **(xiv)** Member of the Board of Directors of Gasmig, a gas distribution company (between 2020 and 2021); **(xv)** Member of the Fiscal Council of Brasken, a petrochemical company (between 2018 and 2019). Graduated in Law from Federal University of Santa Catarina in January, 1995, completed a postgraduation degree in Corporate Tax Administration from Fundação ESAG - ÚNICA in 2000. Holds executive training in mergers and acquisitions from London Business School, and CEO FGV (IBE/FGV/IDE). He is a teacher at the ENA Foundation - Government School for certification of administrators of state-owned companies and mixed-capital companies. He is a Administration Advisor certified by the Brazilian Institute of Corporate Governance (IBGC) since 2010. Mr. Marcelo Gasparino da Silva has stated, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by a final decision at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcelo Gasparino da Silva declared to be a person exposed politically due to the exercise of the positions of (i) Member of the Board of Directors of Eletrobras (from May, 2016 to April, 2017); (ii) Member of the Board of Directors of CEMIG (since 2019); (iii) Member of the Board of Directors of CELESC (from April, 2018 to April, 2019); and (iv) Member of the Fiscal Council of Petrobras (since May, 2019 and from April, 2017 to April, 2018). Mr. Marcelo Gasparino da Silva is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale. For more information, see item 12.12 of this Reference Form.

Manuel Lino Silva de Sousa Oliveira

Passport no. 548309587

Independent Member of Vale's Board of Directors (elected in May, 2021), where he was also appointed to the positions of independent Coordinator of the Audit Committee and independent Member of the People, Compensation and Governance Committee, elected in May 2021 and which will be filled as of 08/01/2021. His main professional experience in the last 5 years include: **(i)** Senior Independent Advisor of Antofagasta PLC, publicly-held company operating in the natural resources and mining sector (since October, 2011); **(ii)** Senior Independent Advisor of Polymetal International PLC, publicly-held company operating in the gold and silver mining sector, where he also holds the position of Head of the Project and Audit Committees and Member of the Nominating Committee (since April, 2018); and **(iii)** Non-Executive Director of Blackrock World Mining Investment Trust PLC, British company operating in the mining investment area (from February, 2020 to April, 2021). Graduated in Accounting and Business Economics from the University of Natal-Durban, South Africa, in December, 1973, where he also completed specialization in Accounting Theory in December, 1975. He also completed specialization in *chartered accountant* e *chartered management accountant* from the Institute of Chartered Accountants of South Africa. Mr. Manuel Lino Silva de Sousa Oliveira has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Manuel Lino Silva de Sousa Oliveira has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Manuel Lino Silva de Sousa Oliveira is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale. He also declared that he holds the position of independent advisor in Antofagasta plc company, where he will transition over the next few months, and he will end his term as an advisor of Blackrock World Mining Trust plc, aiming to solve situations of potential conflict of interest, reason why he will only take office in Vale in 08/01/2021.

Lucio Azevedo

526.635.317-15

He is a member of the Board of Directors of Vale (since April 2015) and Employee of Vale S.A. (since 1985), occupying the position of train driver, assigned to the Union of Workers in Railway Companies of the States of Maranhão, Pará and Tocantins. His main professional experience in the last 5 years is to be Chairman of the Union of Workers in Railway Companies of the States of Maranhão, Pará and Tocantins (since 2013), class entity. Mr. Lucio Azevedo has incomplete High School. Mr. Lucio Azevedo has declared, for all legal purposes, that in the last five years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by final judgement, at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Lucio Azevedo stated that he is not a politically exposed person, as set out in the applicable regulations.

André Viana Madeira

076.512.086-09

Alternate Member of Vale's Board of Directors (since May 2021), where he also holds the position of non-independent member of the Operational Excellence and Risk Committee (since May 2021). His main professional experience in the last 5 years include: **(i)** Chief executive Officer of the Metabase Union of Itabira and Region (since October, 2018); and **(ii)** Member of the Deliberative Council of Pasa, private health plan (since May, 2019). Graduated in Law from the Higher Education Center of Itabira, in December, 2009, and and Theology from the São Permanent Bible School - EBPS in July, 2006. Mr. André Viana Madeira has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or

disqualified him for the practice of any professional or commercial activity. Mr. André Viana Madeira has declared that he is not a politically exposed person as defined in the applicable regulations.

FISCAL COUNCIL

Marcelo Amaral Moraes

929.390.077-72

He is a Permanent Member of the Fiscal Council of Vale (since April 2004), where he also held the position of Non-Independent Member of the Board of Directors (from May to August 2003). His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of CPFL Energia S.A., a publicly-held company in the power industry (since April 2017); **(ii)** Member of the Fiscal Council of Aceco TI S.A., a privately-held company of the construction industry (from March, 2016 to April, 2018; **(iii)** Member of the Board of Directors of Eternit S.A. (from April, 2016 to February, 2018), a publicly-held company specialized in industrialization of products for civil construction; **(iv)** Member of the Fiscal Council of Gol Linhas Aéreas Inteligentes S.A. (since May 2018), a publicly-held company of the air transportation industry; **(v)** Member of the Fiscal Council of Linx S.A. (since May 2018), a publicly-held company of the technology industry, and **(vi)** Member of the Fiscal Council of Ultrapar Participações S.A., a holding company (from May, 2019 to April, 2021) **(vii)** Member of the Audit Committee of Ser Educacional S.A. (since May, 2021), a publicly-held company of the education sector. Graduated in Economics from the Federal University of Rio de Janeiro (UFRJ) in January 1991, completed an MBA in Business Administration from COPPEAD at UFRJ in November 1993, and a postgraduate degree in Corporate Law and Arbitration from Getúlio Vargas Foundation in November 2003. Mr. Marcelo Amaral Moraes has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by a final and unappealable decision at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcelo Amaral Moraes has stated that he is not a politically exposed person, as set out in the applicable regulations.

Marcus Vinícius Dias Severini

632.856.067-20

Permanent Member of Vale's Fiscal Council (since April 2017), where he also acted as Controllership Officer (between October 1994 and March 2015). His main professional experiences in the last 5 years include: **(i)** Member of the Audit Committee of Vale do Rio Doce Social Security Foundation – VALIA, a closed non-profit complementary pension entity, created by Vale (since January 2019); **(ii)** Member of the Audit and Compliance Committee of OceanPact Serviços Marítimos S.A. (since February 2021); **(iii)** Member of the Fiscal Council of BRF S.A. (from April 2015 to April 2019), a publicly held company in the food sector; and **(iv)** Member of the Fiscal Council of Mills Estruturas e Serviços de Engenharia S.A. (from April 2015 to April 2018), a publicly held company operating in the civil construction sector. Graduated in Electrical Engineering from Universidade Federal Fluminense - UFF in December 1979 and in Accounting Sciences from UniverCidade in December 2003. He completed a specialization course in Economic Engineering from UniSUAW in December 1980, a specialization course in Business Management from Dom Cabral Foundation in December 2004, a specialization course in Senior Leadership Program from MIT – Sloan School of Management in September 2005 and the specialization course The Mastering Leadership Challenges Program from IMD International in September 2007. Mr. Mr. Marcus Vinícius Dias Severini has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcus Vinícius Dias Severini has declared that he is not a politically exposed person as defined in the applicable regulations.

Bruno Funchal

082.654.487-83

He is a Permanent Member of Vale's Fiscal Council. His main professional experience in the last 5 years include: **(i)** Secretary of the National Treasury (since July, 2020); **(ii)** Program Director at Special Treasury Officer of the Special Secretariat of Finance of Ministry of Economy (from January 2019 to July 2020); **(iii)** State Secretary for Finance of Espírito Santo (from February 2017 to December 2018); **(iv)** Managing partner of AlphaMar Investimentos (from January 2015 to December 2016); **(v)** Chairman of the Fiscal Council of Caixa Econômica Federal (from May to October 2020), of which he was a full member from December de 2019 to October 2020; **(vi)** Member of the Fiscal Council of the Brazilian Econometric Society (between 2016 and 2017); **(vii)** Principal Teacher: FUCAPE Business School (since 2007); **(viii)** Member of the Work Group of the Ministry of Finance related to the New Bankruptcy and Company Recovery Law (from December 2016 to July 2017). Graduated as Bachelor of Economics from Universidade Federal Fluminense - UFF in 2001, with Doctorate in Economics from EPGE – Getúlio Vargas Foundation in 2006, and Post-Doctorate from IMPA – National Institute of Pure and Applied Mathematics in 2008. Visiting researcher at Wharton School - University of Pennsylvania (from 2013 to 2015). Published academic papers in The Review of Economics and Statistics (Harvard Kennedy School), Economic Letters, Corporate Governance (Oxford), Journal of Corporate Finance, among others. Mr. Bruno Funchal has stated for all legal purposes that in the last five (5) years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by a final and unappealable decision, at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Bruno Funchal has stated, for all legal purposes, that he is a politically exposed person due to his position of Secretary of the National Treasury and State Secretary for Finance of Espírito Santo.

Cristina Fontes Doherty

803.661.047-72

She is a Permanent Member of Vale's Fiscal Council (since April 2020), where she also worked as: Participations Management General Manager (between 2013 and July, 2016), Effective Member of the Board of Directors of Vale Oman (between September 2013 and July 2016), Member of the Operational Financial Committee of California Steel (between July, 2013 and July, 2016), Alternate Member of the Board of Directors at CSP - Companhia Siderúrgica do Pecém (from March 2011 to July 2016), Alternate Member of the Board of Directors at Thyssenkrupp Companhia Siderúrgica do Atlântico (from January 2012 and May 2016), General Manager of Business Development and Management (between 2008 and 2012), Executive Coordinator of Business Development (between 2005 and 2007), Project Coordinator (between 2002 and 2004), Business Analyst (between 1998 and 2001), Economic Analyst Financial (between 1996 and 1998), Economist (between 1992 and 1995). Her main professional experiences in the last 5 years include: **(i)** Alternate Member of the Fiscal Council at Invepar, a Brazilian company in the highway, airport and urban mobility businesses (from 2019 to 2020). Certified by IBGC - Brazilian Institute of Corporate Governance as a Board Member in 2018. Graduated in Economics from Faculdade Cândido Mendes in Ipanema/RJ in July 1988 and concluded an MBA in Executive Finances from Brazilian Institute of Capital Markets– IBMEC/RJ in September 1996 and an MBA in Strategic Business Management from University of São Paulo – USP in August 2004. Mrs. Cristina Fontes Doherty has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Cristina Fontes Doherty has declared that she is not a politically exposed person as defined in the applicable regulations.

Raphael Manhães Martins

096.952.607-56

He is a Permanent Member of Vale's Fiscal Council (since April 2015). His main professional experiences in the last 5 years include: **(i)** Partner/Lawyer at Faoro Advogados, a law firm (since 2010); **(ii)** Member of the Board of Directors of Oi S.A., a telecommunications company (since 2021); **(iii)** Effective Member of the Fiscal Council of Panaraense Energia Company – COPEL, a holding company in the energy sector (since 2021); **(iv)** Effective member of the Fiscal Council of Smiles Fidelidade S.A., a frequent flyer program company (since 2021), **(v)** Effective member of the Fiscal Council of Oi S.A., a telecommunications company (from 2019 to 2021); **(vi)** Member of the Board of Directors of Eternit S.A. (since 2015 to 2020), a publicly held company in the construction materials industry; **(vii)** Member of Board of Directors and Effective member of the Fiscal Council of Light S.A. (from 2012 to 2013 and from 2014 to 2018), a publicly-held company in the power business, where also held the position of **(vi)** Member of the Board of Directors (from 2018 to 2019); **(vii)** Effective Member of the Board of Directors

(from 2018 to 2019) and Fiscal Council (from 2015 to 2018) of Light S.A., a publicly-held company in the power business, **(viii)** Member of the Board of Directors of Condor S.A. Indústria Química (from 2017 to 2019), a company in the safety business (from 2017 to 2019); and **(ix)** Member of the Board of Directors of Fibria Celulose S/A (from 2016 to 2017), a company at the cellulose business. Graduated in Law from the University of the State of Rio de Janeiro - UERJ in December 2006. Mr. Raphael Manhães Martins has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Brazilian Securities Commission, or by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Raphael Manhães Martins has declared that he is not a politically exposed person, as set out in the applicable regulations.

Adriana de Andrade Solé

378.627.316-20

Alternate Member of Vale's Fiscal Council (since May 2021). Her main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of SCGAS - Gas Company of Santa Catarina (since 2010); **(ii)** Member of the State Companies Commission of the Brazilian Institute of Corporate Governance – IBGC (between 2013 and 2017); **(iii)** Visiting Professor in the KPMG Risk University Program (since 2015); **(iv)** Associate, Member and Visiting Professor of the Brazilian Institute of Corporate Governance (since 2013); **(v)** Owner and Founder of the "Governança Já" brand and Youtube channel (since 2018); **(vi)** Associate Consultant of the Capital Market Development Institute - IDMC in the Elite Brazil Program of the London Stock Exchange (since 2016); **(vii)** Teacher of Post-Graduation Courses and Corporate Solutions, teaching Governance, Compliance and Risk disciplines; Strategic Management and Corporate Governance at IBMEC-MG (since 2010); e **(viii)** Visiting Teacher at Dom Cabral Foundation - FDC (since 2005); **(ix)** Researcher on Corporate Governance and Asset Management - Gorceix Foundation (since 2015); **(x)** Member of the Consulting Board of Editora Fórum (from January, 2018); **(xi)** Teacher in PUC MG - Corporate Governance, Business Ethics and Compliance; **(xii)** Speaker and Consultant about Corporate Governance and Governance in Public Institutions (from 2016); and **(xiii)** Managing Partner of Tradecon Ltda, a consulting firm (since May 2018). Graduated in Electrical engineering from Pontifical Catholic University of Minas Gerais in 1986; with specialization in Economic Engineering from Dom Cabral Foundation - FDC completed in 1996; Executive MBA in Business Management from Getúlio Vargas Foundation - FGV completed in 2001; and higher diploma of Spanish from Salamanca University, completed in 2003; she is management advisor certified by IBGC since 2010. Mrs. Adriana de Andrade Solé has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Ms. Adriana de Andrade Solé declared that she was not a politically exposed person, as defined in the applicable regulation.

Nelson de Menezes Filho

756.878.878-49

Alternate Member of Vale's Fiscal Council (since May 2019). His main professional experiences in the last 5 years include: **(i)** Member of the Fiscal Council of Embraer S.A. (between April 2013 and April 2015), a publicly held company in the industrial and aeronautical sector; **(ii)** Member of the Board of Directors of Beta Securitizadora S.A. (between May 2016 and January 2019), a service and financial company; **(iii)** Officer of BANIF - Banco Inter do Funchal S.A. (between February 2016 and August 2017), a service and financial company, where he also acted as Chief Auditor (between October 2012 and February 2016); **(iv)** Officer of BANIF - Banco de Investimento S.A. (between February 2016 and August 2017), a company in the services and financial sector, where he also acted as Chief Auditor (between October 2012 and February 2016); **(v)** Executive Manager (Internal Audit) of Banco do Brasil S.A. (between February 2009 and October 2012), a publicly traded company in the financial sector; and **(vi)** Chairman of the Audit Committee of COOPERFORTE - Economy and Credit Cooperative (since October 2018), active in the services and financial sector. Graduated in Metallurgical Engineering at FEI - School of Industrial Engineering in June 1980 and completed MBA in Audit from FIPECAFI/USP in July 1998. Mr. Nelson de Menezes Filho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Nelson de Menezes Filho has declared that he is not a politically exposed person as defined in the applicable regulations.

Vera Lucia de Almeida Pereira Elias

492.846.497-49

She is an alternate member of Vale's Fiscal Council (since April 2021), where occupied several positions, such as Controllershship General Manager (from 2007 to 2013). Her main professional experiences in the last 5 years include: **(i)** Member of the Statutory Audit Committee of Banco do Brasil S.A. (since February 2021), financial sector publicly-held company; **(ii)** Member of the Statutory Audit Committee of Casa da Moeda do Brasil (from June 2018 to September de 2020), state currency and paper money printing company in Brazil **(iii)** Member of the Statutory Audit Committee of Fibria Celulose (from May 2018 to January 2019), publicly-held company of the planted forests and pulp and paper production sector; **(iv)** Member of the Fiscal Council of Indústrias ROMI S.A. (since March 2020), company in the sector of industrial machinery and equipment; **(v)** Member of the Fiscal Council of Neoenergia S.A. (from March 2017 to March 2020), a power generation, transmission and distribution company; **(vi)** Member of the Fiscal Council of SCP Copacabana Design Hotel (from April 2016 to 2019), a hotel sector company; e **(vii)** Member of the Fiscal Council of Mills Estruturas e Serviços de Engenharia (from April 2015 to April 2018; company in the sector of engineering products and services. Graduated in Accounting Sciences from the Federal University of the State of Rio de Janeiro - UFRJ in December 1979 and Bachelor in Law from the University of the State of Rio de Janeiro - UERJ, in December 1984. Completed MBA in Finance from the IBMEC - Brazilian Institute of Capital Markets in December 1994, where she completed specialization in Corporate Governance in December, 2001. Participation in the Executive Training Program from the *Darden Graduate School of Business Administration* in University of Virginia (EUA) in July 1996, and is certified as Advisor by the Brazilian Institute of Corporate Governance - IBCG and the Institute of Institutional Certification of Social Security Professionals - ICSS. Mrs. Vera Lucia de Almeida Pereira Elias has declared, for all legal purposes, that in the last 5 years he shas not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Vera Lucia de Almeida Pereira Elias has declared that she is not a politically exposed person as defined in the applicable regulations.

12.7 / 8 - Composition of statutory committees and audit, financial and compensation committees

Name	Committee type	Elective position held	Profession	Election Date	Term duration
CPF or passport number	Description of other committees/ Description other positions held	Number of Consecutive Terms	Date of Birth	Investiture date	% of participation of the member in the meetings held after investiture
Other positions/functions performed at the issuer		Independent Member	Criteria used to determine independence		
Luciano Siani Pires	Other Committees	Coordinator	Mechanical Engineer	08/22/2019	Indefinite
013.907.897-56	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	02/10/1970	08/22/2019	100%
Executive Officer of Finance and Investor Relations		No	N/A		
Carlos Henrique Senna Medeiros	Other Committees	Coordinator	Engineer	08/22/2019	Indefinite
048.556.228-69	Business Risks Executive Committee - Operational Risks	0	08/01/1963	08/22/2019	83%
Safety and Operational Excellence Executive Officer and Coordinator of the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Carlos Henrique Senna Medeiros	Other Committees	Coordinator	Engineer	08/22/2019	Indefinite
048.556.228-69	Business Risks Executive Committee - Geotechnical Risks	0	08/01/1963	08/22/2019	100%
Safety and Operational Excellence Executive Officer and Coordinator of the Business Risks Executive Committee - Operational		No	N/A		
Alexandre D'Ambrosio	Other Committees	Member of the Committee (Full Member)	Lawyer	03/19/2018	Indefinite
042.170.338-50	Conduct and Integrity Committee	0	08/01/1962	03/19/2018	100%
Executive Legal Officer and Coordinator of the Business Risks Executive Committee - Compliance Risks		No	N/A		
Alexandre D'Ambrosio	Other Committees	Coordinator	Lawyer	08/22/2019	Indefinite
042.170.338-50	Business Risks Executive Committee - Compliance Risks	0	08/01/1962	08/22/2019	80%
Executive Legal Officer and member of the Conduct and Integrity Committee		No	N/A		
Marina Barrenne de Artagão Quental	Other Committees	Member of the Committee (Full Member)	Psychologist	11/17/2017	Indefinite

772.073.197-20	Conduct and Integrity Committee	0	04/18/1964	11/17/2017	90%
Executive People Officer		No	N/A		
Ricardo Henrique Baras	Other Committees	Member of the Committee (Full Member)	Business administrator	11/01/2013	Indefinite
103.564.968-30	Conduct and Integrity Committee	0	06/08/1966	11/01/2013	80%
Audit Officer and Interim General Ombudsman		No	N/A		
Camilla dos Reis Claudio Soares	Other Committees	Member of the Committee (Full Member)	Lawyer	02/11/2020	Indefinite
082.993.787-02	Conduct and Integrity Committee		11/25/1978	02/11/2020	100%
Vale's Corporate Integrity Executive Manager			N/A		
Rodrigo Ramos Silveira	Other Committees	Secretary	Chemical Engineer	08/22/2019	Indefinite
120.682.788-20	Business Risks Executive Committee - Operational Risks	0	04/25/1973	08/22/2019	100%
Health, Safety, Environmental and Operational Risks Officer, and member of the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Rodrigo Ramos Silveira	Other Committees	Member of the Committee (Full Member)	Chemical Engineer	08/22/2019	Indefinite
120.682.788-20	Business Risks Executive Committee - Geotechnical Risks	0	04/25/1973	08/22/2019	50%
Health, Safety, Environmental and Operational Risks Officer, and member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Luiz Fernando Landeiro Junior	Other Committees	Member of the Committee (Full Member)	Civil Engineer	08/22/2019	Indefinite
075.784.817-62	Executive Committee of Business Risks - Geotechnical Risks	0	03/16/1977	08/22/2019	50%
Officer of Planning and Engineering, Member of the Executive Committee of Business Risks - Strategic, Financial and Cyber Risks		No	N/A		
Kleger Duque de Almeida Filho	Other Committees	Member of the Committee (Full Member)	Civil Engineer	08/22/2019	Indefinite
583.594.866-20	Business Risks Executive Committee - Operational Risks	0	01/31/1966	08/22/2019	100%
Asset Management Officer		No	N/A		
Luis Eduardo Simonetti Baroni	Other Committees	Member of the Committee (Full Member)	Engineer	08/22/2019	Indefinite
047.695.448-71	Business Risks Executive Committee - Operational Risks	0	12/29/1963	08/22/2019	50%
Operational Excellence Officer and Member of the Business Risk Executive Committee - Geotechnical Risks		No	N/A		

Luis Eduardo Simonetti Baroni	Other Committees	Member of the Committee (Full Member)	Engineer	08/22/2019	Indefinite
047.695.448-71	Business Risks Executive Committee - Geotechnical Risks	0	12/29/1963	08/22/2019	100%
Operational Excellence Officer and Member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Carlos Rodrigues de Campos Mello Junior	Other Committees	Member of the Committee (Full Member)	Civil Engineer	08/22/2019	Indefinite
221.030.278-17	Business Risks Executive Committee - Operational Risks	0	11/10/1980	08/22/2019	100%
Engineering and Asset Management Officer and Member of the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Carlos Rodrigues de Campos Mello Junior	Other Committees	Member of the Committee (Full Member)	Civil Engineer	08/22/2019	Indefinite
221.030.278-17	Business Risks Executive Committee - Geotechnical Risks	0	11/10/1980	08/22/2019	17%
Engineering and Asset Management Officer and Member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Túlio Weber Drumond Santos	Other Committees	Member of the Committee (Full Member)	Engineer	08/22/2019	Indefinite
801.735.516-53	Business Risks Executive Committee - Geotechnical Risks	0	05/16/1967	08/22/2019	83%
Planning Executive Manager - Ferrous Products Chain - Mozambique Support		No	N/A		
Eduardo de Barros Montarroyos	Other Committees	Secretary	Degree in Computer Science and Information Technology	08/22/2019	Indefinite
848.170.037-15	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	07/25/1965	08/22/2019	100%
Executive Manager for Internal Controls, Risks and Compliance, and secretary to the Business Risks Executive Committee - Compliance and Consolidator of the Business Risk Executive Committee - Sustainability, Institutional Relations and Reputation.		No	N/A		
Eduardo de Barros Montarroyos	Other Committees	Secretary	Degree in Computer Science and Information Technology	08/22/2019	Indefinite
848.170.037-15	Business Risks Executive Committee - Compliance Risks	0	07/25/1965	08/22/2019	100%
Executive Manager for Internal Controls, Risks and Compliance, secretary to the Business Risks Executive Committee - Strategic, Financial and Cyber Risks and Consolidator of the Business Risk Executive Committee - Sustainability, Institutional Relations and Reputation.		No	N/A		
Marcio Felipe Milheiro Aigner	Other Committees	Member of the Committee (Full Member)	Business administrator	08/22/2019	Indefinite
035.853.907-22	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	20/04/1975	08/22/2019	100%

Treasury and Corporate Finance Officer		No	N/A		
Juan Franco Merlini	Other Committees	Member of the Committee (Full Member)	Electrical Engineer	08/22/2019	Indefinite
011.903.586-38	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	19/10/1975	08/22/2019	83%
Finance and Business Development Director - Base Metals		No	N/A		
Fabio de Souza Queiroz Ferraz	Other Committees	Member of the Committee (Full Member)	Business administrator	08/22/2019	Indefinite
136.132.108-35	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	10/11/1967	08/22/2019	100%
Merger and Acquisitions Officer		No	N/A		
José Cláudio Cyrineu Terra	Other Committees	Member of the Committee (Full Member)	Production Engineer	02/19/2021	Indefinite
106.244.378-09	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	25/05/1965	02/19/2021	0%
Technology Officer		No	N/A		
Rogério Tavares Nogueira	Other Committees	Member of the Committee (Full Member)	Metallurgical Engineer	08/22/2019	Indefinite
882.737.416-72	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	03/12/1968	08/22/2019	100%
Marketing Officer - Ferrous Products		No	N/A		
Ricardo Monte Alto de Almeida	Other Committees	Member of the Committee (Full Member)	Production Engineer	18/12/2020	Indefinite
071.501.087-50	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	13/03/1976	18/12/2020	0%
Strategy Officer		No	N/A		
André Moreira Santos	Other Committees	Member of the Committee (Full Member)	Economist	08/22/2019	Indefinite
029.306.287-07	Business Risks Executive Committee - Compliance Risks	0	06/23/1978	08/22/2019	100%
HR Solutions, Performance and Compensation Executive Manager		No	N/A		
Hugo Guimarães Barreto Filho	Other Committees	Member of the Committee (Full Member)	Degree in Philosophy	08/22/2019	Indefinite

403.170.487-91	Business Risks Executive Committee - Compliance Risks	0	04/27/1955	08/22/2019	0%
Sustainability and Social Investment Officer and member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation		No	N/A		
Octavio Bulcão Nascimento	Other Committees	Member of the Committee (Full Member)	Lawyer	08/22/2019	Indefinite
465.419.855-53	Business Risks Executive Committee - Compliance Risks	0	07/29/2019	08/22/2019	60%
Tax Officer		No	N/A		
Camilla dos Reis Claudio Soares	Other Committees	Member of the Committee (Full Member)	Lawyer	08/22/2019	Indefinite
082.993.787-02	Business Risks Executive Committee - Compliance Risks	0	11/25/1978	08/22/2019	100%
Vale's Corporate Integrity Manager		No	N/A		
Roberta Gomes de Oliveira	Other Committees	Member of the Committee (Full Member)	Lawyer	09/10/2019	Indefinite
045.454.217-84	Business Risks Executive Committee - Compliance Risks	0	10/03/1974	09/10/2019	80%
Vale's Corporate Legal Executive Manager		No	N/A		
Bruno Santos Ferraz	Other Committees	Member of the Committee (Full Member)	Civil Engineer	07/29/2019	Indefinite
045.463.317-38	Business Risks Executive Committee - Operational Risks	0	11/11/1974	09/30/2019	100%
Executive Manager of Environmental Management and member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation		No	N/A		
Carlos Eduardo Bechara Miana	Other Committees	Member of the Committee (Full Member)	Civil Engineer	08/22/2019	Indefinite
004.617.106-17	Business Risks Executive Committee - Geotechnical Risks	0	19/03/1974	08/22/2019	100%
Dam Decharacterization Executive Manager		No	N/A		

Rafael Jabur Bittar	Other Committees	Secretary	Civil Engineer	09/02/2019	Indefinite
707.231.411-34	Business Risks Executive Committee - Geotechnical Risks	0	09/24/1980	09/02/2019	100%
Geotechnics Officer and Member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Rafael Jabur Bittar	Other Committees	Member of the Committee (Full Member)	Civil Engineer	10/21/2019	Indefinite
707.231.411-34	Business Risks Executive Committee - Operational Risks	0	09/24/1980	10/21/2019	100%
Geotechnics Officer and Secretary of the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Geraldo Pimentel Mármore Sobrinho	Other Committees	Member of the Committee (Alternate)	Mechanical Engineer	21/01/2020	Indefinite
FW443700	Business Risks Executive Committee - Operational Risks	0	19/09/1975	01/21/2020	0%
Plant Maintenance Manager		No	N/A		
Leonardo Camona Xerinda	Other Committees	Member of the Committee (Alternate)	Geologist	01/21/2020	Indefinite
15AK40154	Business Risks Executive Committee - Geotechnical Risks	0	03/06/1978	01/21/2020	50%
Moatize Coal Mine Studies and Projects Manager		No	N/A		
Sonia Zagury	Other Committees	Member of the Committee (Alternate)	Economist	01/21/2020	Indefinite
934.316.517-04	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	08/04/1967	01/21/2020	17%
New Businesses Officer		No	N/A		
Bruna Paiva Maffra	Other Committees	Member of the Committee (Alternate)	Business Administrator	01/21/2020	Indefinite

048.495.276-55	Business Risks Executive Committee - Operational Risks	0	09/08/1982	01/21/2020	0%
Management Operational Excellence Executive Manager		No	N/A		
Claudemir Peres	Other Committees	Member of the Committee (Alternate)	Industrial Chemist	01/21/2020	Indefinite
091.186.668-09	Business Risks Executive Committee - Geotechnical Risks	0	01/19/1968	01/21/2020	0%
Operational Risks and Process Safety Executive Manager and alternate secretary for the Business Risks Executive Committee - Operational Risks		No	N/A		
Claudio Augusto Mendes	Other Committees	Member of the Committee (Alternate)	Mechanical Engineer	01/21/2020	Indefinite
821.711.496-04	Business Risks Executive Committee - Geotechnical Risks	0	02/15/1973	01/21/2020	33%
Technical Operational Excellence Executive Manager		No	N/A		
Fernando Campos Guimarães	Other Committees	Member of the Committee (Alternate)	Mechanical Engineer	01/21/2020	Indefinite
687.293.596-00	Business Risks Executive Committee - Operational Risks	0	04/01/1963	01/21/2020	80%
Industrial Facilities Assets Management Executive Manager		No	N/A		
Lucas Barros Duarte	Other Committees	Member of the Committee (Alternate)	Civil Engineer	01/21/2020	Indefinite
049.864.816-81	Business Risks Executive Committee - Operational Risks	0	06/30/1981	01/21/2020	40%
Geotechnics Corporate Manager and alternate secretary for the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Eduardo Amiel Pfiffer	Other Committees	Member of the Committee (Alternate)	Economist	01/23/2020	Indefinite
029.438.037-07	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	07/23/1974	01/23/2020	0%
Vale's Market Analysis and Intelligence Executive Manager		No	N/A		

Patricia Silva Rodrigues Scheel	Other Committees	Member of the Committee (Alternate)	Engineer	01/23/2020	Indefinite
034.213.646-13	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	01/02/1978	01/23/2020	67%
International Treasury Manager and County Manager in Netherlands		No	N/A		
Diogo Augusto Monteiro	Other Committees	Member of the Committee (Alternate)	Mining Engineer	01/23/2020	Indefinite
035.697.266-65	Business Risks Executive Committee - Geotechnical Risks	0	08/18/1978	01/23/2020	0%
Long Term Mine Planning Executive Manager		No	N/A		
Viktor Nigri Moszkowicz	Other Committees	Member of the Committee (Alternate)	Mechanical Engineer	01/23/2020	Indefinite
081.994.337-10	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	12/01/1978	01/23/2020	33%
Insurance and Financial Risks Manager		No	N/A		
Diogo Afonso Costa	Other Committees	Member of the Committee (Full Member)	Geologist	01/23/2020	Indefinite
034.623.516-21	Business Risks Executive Committee - Geotechnical Risks	0	10/20/1977	01/23/2020	17%
Closed Mines Officer		No	N/A		
Milena Jorge Martins	Other Committees	Member of the Committee (Alternate)	Business Administrator	01/23/2020	Indefinite
026.876.337-20	Business Risks Executive Committee - Compliance Risks	0	08/06/1974	01/23/2020	0%
Engagement, Culture and Talent Executive Manager		No	N/A		
Frank Marcos da Silva Pereira	Other Committees	Member of the Committee (Alternate)	Civil Engineer	01/28/2020	Indefinite

GA699135	Business Risks Executive Committee - Geotechnical Risks	0	01/13/1978	01/28/2020	100%
Dam Engineering Executive Manager		No	N/A		
Luiz Antonio R. R. Scavarda do Carmo	Other Committees	Member of the Committee (Alternate)	Engineer	01/28/2020	Indefinite
014.495.707-80	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	07/12/1972	01/28/2020	67%
Strategic Procurement Management Manager		No	N/A		
Dan Harif	Other Committees	Member of the Committee (Alternate)	Information Systems Analyst	01/28/2020	Indefinite
002.260.247-09	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	10/26/1968	01/28/2020	50%
Information Security Manager		No	N/A		
Claudemir Peres	Other Committees	Secretary - Alternate	Industrial Chemist	11/18/2019	Indefinite
091.186.668-09	Business Risks Executive Committee - Operational Risks	0	01/19/1968	11/18/2019	100%
Operational Risks and Process Safety Executive Manager and alternate member for the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
Lucas Barros Duarte	Other Committees	Secretary - Alternate	Civil Engineer	11/12/2019	Indefinite
049.864.816-81	Business Risks Executive Committee - Geotechnical Risks	0	06/30/1981	11/12/2019	50%
Geotechnics Corporate Manager and alternate member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Rafael Gomes Martinez	Other Committees	Member of the Committee (Alternate)	Engineer	02/06/2020	Indefinite
034.006.577-00	Business Risks Executive Committee - Compliance Risks	0	11/29/1972	02/06/2020	0%
Territorial Development and Relationship with Communities Manager and alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation		No	N/A		

Guilherme Alves de Melo	Other Committees	Member of the Committee (Alternate)	Environmental Engineer	02/06/2020	Indefinite
315.225.838-07	Business Risks Executive Committee - Operational Risks	0	06/04/1985	02/06/2020	20%
Operations Support Manager		No	N/A		
Michael Gerald Duffy	Other Committees	Member of the Committee (Alternate)	Health, Safety, Environment and Risk Professional	02/05/2020	Indefinite
HK207423	Business Risks Executive Committee - Operational Risks	0	04/29/1966	02/05/2020	20%
Health, Safety, Environment and Risk Acting Officer		No	N/A		
Luke Thomas Mahony	Other Committees	Member of the Committee (Alternate)	Mining Engineer	02/05/2020	Indefinite
PE0394847	Business Risks Executive Committee - Geotechnical Risks	0	03/27/1980	02/05/2020	83%
Head of Corporate Technical Services of Vale Canada.		No	N/A		
Carlos Eduardo Woelffel Martins	Other Committees	Member of the Committee (Alternate)	Accountant	02/05/2020	Indefinite
078.150.987-46	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	01/21/1978	02/05/2020	17%
Planning and Financial Analysis Manager		No	N/A		
Cláudio Depes Tallon Netto	Other Committees	Member of the Committee (Alternate)	Lawyer	02/05/2020	Indefinite
035.870.857-57	Business Risks Executive Committee - Compliance Risks	0	07/29/2019	02/05/2020	25%
Legal Manager of Contracts and Maritime Insurance		No	N/A		
Karin Nunes Kern Rocha	Other Committees	Member of the Committee (Alternate)	Lawyer	02/05/2020	Indefinite
086.709.477-06	Business Risks Executive Committee - Compliance Risks	0	03/13/1980	02/05/2020	25%
Sanctions, Antitrust and Strategic Projects Manager		No	N/A		
Mariana Correia Pereira	Other Committees	Member of the Committee (Alternate)	Lawyer	02/05/2020	Indefinite

026.667.926-92	Business Risks Executive Committee - Compliance Risks	0	07/14/1977	02/05/2020	25%
Tax Risks and Guidance Manager		No	N/A		
Vagner Silva de Loyola Reis	Other Committees	Member of the Committee (Full Member)	Industrial Chemist	04/08/2020	Indefinite
992.523.177-91	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	09/20/1968	04/08/2020	75%
Ferrous Products Value Chain Officer		No	N/A		
Luiz Fernando Landeiro Junior	Other Committees	Member of the Committee (Full Member)	Civil Engineer	04/08/2020	Indefinite
075.784.817-62	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	03/16/1977	04/08/2020	75%
Planning and Engineering Director, Member of the Executive Committee of Business Risks - Geotechnical Risks		No	N/A		
Marcos Guilherme Ruffeil Moreira	Other Committees	Member of the Committee (Alternate)	Mechanical Engineer	04/08/2020	Indefinite
599.088.312-91	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	04/19/1977	04/08/2020	100%
Production Planning and Logistics Capacity Manager		No	N/A		
Bruno Araujo Perrotta	Other Committees	Member of the Committee (Alternate)	Industrial Engineer	04/08/2020	Indefinite
071.317.947-32	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	04/26/1975	04/08/2020	50%
Base Metals Integrated Business Planning (IBP) Executive Manager		No	N/A		
Roberto Mauro Di Biase Sampaio	Other Committees	Member of the Committee (Alternate)	Metallurgical Engineer	04/17/2020	Indefinite
007.478.727-67	Business Risks Executive Committee - Geotechnical Risks	0	12/22/1970	04/17/2020	60%
Health, Safety, Environmental and Ferrous Metal Risks Executive Manager, and alternate member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Ricardo Batista Mendes	Other Committees	Member of the Committee (Full Member)	Electrical Engineer	04/17/2020	Indefinite
026.901.886.78	Business Risks Executive Committee - Geotechnical Risks	0	05/16/1975	04/17/2020	100%

Executive Energy Manager		No	N/A		
Glauco Vinícius de Oliveira Gonçalves	Other Committees	Member of the Committee (Alternate)	Accountant	04/17/2020	Indefinite
992.440.636-20	Business Risks Executive Committee - Geotechnical Risks	0	07/29/2019	04/17/2020	40%
Shareholding, Strategy and New Businesses Manager		No	N/A		
Roberto Mauro Di Biase Sampaio	Other Committees	Member of the Committee (Alternate)	Metallurgical Engineer	05/07/2020	Indefinite
007.478.727-67	Business Risks Executive Committee - Operational Risks	0	12/22/1970	05/07/2020	100%
Health, Safety and Environmental and Ferrous Metal Risks Executive Manager, and member of the Business Risks Executive Committee - Geotechnical Risks		No	N/A		
José Luiz de Oliveira Martins	Other Committees	Member of the Committee (Full Member)	Mining Engineer	06/22/2020	Indefinite
152.690.944-87	Business Risks Executive Committee - Operational Risks	0	03/05/1958	06/22/2020	100%
Executive Coal Operations Manager		No	N/A		
Andressa Machado Duran Linhares	Other Committees	Secretary - Alternate	Economist	06/22/2020	Indefinite
037.689.187-42	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	06/04/1975	06/22/2020	67%
Integrated Business Risk Management Manager and alternate secretary for the Business Risks Executive Committee - Compliance Risks		No	N/A		
Marco Aurelio Brito Braga	Other Committees	Member of the Committee (Full Member)	Bachelor's Degree in Business Administration	06/22/2020	Indefinite
952.400.126-87	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	07/31/1975	06/22/2020	67%
Procurement and Inbound Logistics Officer		No	N/A		
Andressa Machado Duran Linhares	Other Committees	Secretary - Alternate	Economist	06/22/2020	Indefinite
037.689.187-42	Business Risks Executive Committee - Compliance Risks	0	06/04/1975	06/22/2020	100%
Integrated Business Risk Management Manager and alternate secretary for the Business Risks Executive Committee - Strategic, Financial and Cyber Risks		No	N/A		
Patrick James	Other Committees	Member of the Committee (Full Member)	Mining Professional	06/28/2020	Indefinite

	Business Risks Executive Committee - Operational Risks	0	08/27/1957	06/28/2020	100%
Health, Safety, Environment and Risk Officer (<i>Head of HSE & Risk</i>) of <i>Vale Base Metals</i> .		No	N/A		
Murilo Muller	Other Committees	Member of the Committee (Full Member)	Accountant	08/21/2020	Indefinite
877.208.929-68	Business Risks Executive Committee - Strategic, Financial and Cyber Risks	0	02/17/1973	08/21/2020	0%
Controllershship Officer		No	N/A		
Eliane Velo Dominguez	Other Committees	Alternate Member	Accountant	10/01/2020	Indefinite
034.232.097-12	Business risk Executive Committee - Strategic, Financial and Cyber Risks	0	01/05/1976	10/01/2020	0%
Global Standards and Consolidation Manager		No	N/A		
Vitor Monteiro Cabral	Other Committees	Alternate Member	Civil Engineer	12/03/2020	Indefinite
021.139.627-30	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	10/21/1974	12/03/2020	100%
Environmental Technology Manager		No	N/A		
Bruno Santos Ferraz	Other Committees	Member of the Committee (Full Member)	Civil Engineer	12/03/2020	Indefinite
045.463.317-38	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	11/11/1974	12/03/2020	100%
Environmental Management Executive Manager and Member of the Business Risks Executive Committee - Operational Risks		No	N/A		
Hugo Guimarães Barreto Filho	Other Committees	Member of the Committee (Full Member)	Bachelor's Degree in Philosophy	12/03/2020	Indefinite
403.170.487-91	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	04/27/1955	12/03/2020	100%
Sustainability and Social Investment Officer and member of the Business Risks Executive Committee - Compliance Risks		No	N/A		
Rafael Gomes Martinez	Other Committees	Alternate Member	Engineer	12/03/2020	Indefinite
034.006.577-00	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	11/29/1972	12/03/2020	100%

Territorial Development and Relationship with Communities Manager and alternate member of the Business Risks Executive Committee - Compliance Risks		No	N/A		
Júlio César Gama de Almeida	Other Committees	Member of the Committee (Full Member)	Journalist	12/03/2020	Indefinite
008.523.287-45	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	04/05/1969	12/03/2020	100%
Global Communication Officer		No	N/A		
Renata Silveira Bellozi	Other Committees	Alternate Member	Journalist	12/03/2020	Indefinite
082.937.077-39	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	03/10/1979	12/03/2020	0%
General Manager		No	N/A		
Luiz Ricardo de Medeiros Santiago	Other Committees	Member of the Committee (Full Member)	Institutional and Government Relations	12/03/2020	Indefinite
780.016.171-49	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	03/03/1976	12/03/2020	0%
Institutional Relations Officer		No	N/A		
Elisa Romano Dezolt	Other Committees	Alternate Member	Biologist	12/03/2020	Indefinite
619.915.621-87	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	01/24/1975	12/03/2020	100%
Federal Government and Institutional Relations Manager		No	N/A		
Camilla Lott Ferreira	Other Committees	Member of the Committee (Full Member)	Agronomic Engineer	12/03/2020	Indefinite
043.987.797-01	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	07/29/2019	12/03/2020	100%
Executive Manager for Social Management		No	N/A		
Liesel Mack Filgueiras	Other Committees	Alternate Member	Psychologist	12/03/2020	Indefinite
072.149.377-78	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	03/16/1973	12/03/2020	0%

Human Rights Manager		No	N/A		
Marcelo Leite Barros	Other Committees	Member of the Committee (Full Member)	Economist	12/03/2020	Indefinite
015.314.747-48	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	05/18/1968	12/03/2020	0%
Operation Executive Officer - South and Midwest Corridor		No	N/A		
Dairson Alexandre Pintor	Other Committees	Alternate Member	Engineer	12/03/2020	Indefinite
156.254.188-96	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	07/23/1971	12/03/2020	100%
HSEQ, Risks and Emergency Executive Manager		No	N/A		
Luiz Gustavo Reche	Other Committees	Member of the Committee (Full Member)	Mining Engineer and Chemical Engineer	12/03/2020	Indefinite
011.032.266-60	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	04/18/1976	12/03/2020	0%
Operations Executive Officer - Atlântico Sul		No	N/A		
Antonio Daher Padovezi	Other Committees	Member of the Committee (Full Member)	Mining Engineer	12/03/2020	Indefinite
438.231.906-44	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	10/30/1976	12/03/2020	0%
North Corridor Executive Officer		No	N/A		
Valéria Cristina Franco	Other Committees	Alternate Member	Business Administrator	12/03/2020	Indefinite
618.238.643-68	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	05/04/1979	12/03/2020	100%
HSEQ and Risks executive Manager - North Corridor		No	N/A		
Sérgio Inácio Cassamo Chitará	Other Committees	Member of the Committee (Full Member)	Forest Engineer	12/03/2020	Indefinite
	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	12/04/1957	12/03/2020	100%

Executive Manager (Country Manager) - Vale Mozambique		No	N/A		
Marcelo Tertuliano Melo	Other Committees	Alternate Member	Business administrator	12/03/2020	Indefinite
996.501.346-20	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	04/26/1973	12/03/2020	100%
Executive Manager of Management, Performance and Strategy - Coal CFO in Mozambique		No	N/A		
Fernando Marino	Other Committees	Member of the Committee (Full Member)	Geologist Engineer	12/03/2020	Indefinite
031.256.998-00	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	07/19/1960	12/03/2020	100%
Executive Manager of Planning and Geotechnics		No	N/A		
Marcos Lewin	Other Committees	Alternate Member	Director	12/03/2020	Indefinite
090.026.657-09	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	09/17/1981	12/03/2020	100%
Health, Safety, Environment and Risk Executive Manager		No	N/A		
Rodrigo Lauria de Castro Loureiro	Other Committees	Secretary	Business Administration	12/03/2020	Indefinite
080.859.807-46	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	11/06/1978	12/03/2020	100%
Economic and Performance Management Manager - Sustainability		No	N/A		
Luiz Eduardo Fróes do Amaral Osorio	Other Committees	Coordinator	Lawyer	12/03/2020	Indefinite
026.000.007-80	Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation	0	04/09/1974	12/03/2020	100%
Executive Officer of Institutional Relations and Communication		No	N/A		
Manuel Lino Silva de Sousa Oliveira	Audit Committee	Coordinator	Economist	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
-	N/A	0	03/03/1952		0%

Independent Member of the Board of Directors and Member of the People, Compensation and Governance Committee		No	N/A		
Mauro Gentile Rodrigues da Cunha	Audit Committee	Interim Coordinator	Consultant	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
004.275.077-66	N/A	0	11/06/1971	05/18/2021	0%
Independent Member of the Board of Directors and Coordinator of the People, Compensation and Governance Committee		No	N/A		
Luciana Pires Dias	Audit Committee	Specialist and External Member	Lawyer	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
251.151.348-02	N/A	1	01/13/1976	05/18/2021	100%
N/A		Yes	-		
Sergio Ricardo Romani	Audit Committee	Specialist and External Member	Consultant	05/18/2021	
728.647.617-34	N/A	1	06/05/1959	05/18/2021	100%
N/A		Yes	-		
Roger Allan Downey	Other Committees	Coordinator	Administrator	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
623.291.626-34	Operational Excellence and Risk Committee	1	04/01/1967	05/18/2021	100%
Independent Member of the Board of Directors and Member of the Innovation Committee		No	N/A		
Eduardo Oliveira Rodrigues	Other Committees	Member of the Committee (Full Member)	Engineer	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
442.810.487-15	Operational Excellence and Risk Committee	1	08/20/1954	05/18/2021	0,00%
Member of the Board of Directors and Member of the Sustainability Committee		No	N/A		
André Viana Madeira	Other Committees	Member of the Committee (Full Member)	Mechanic / Educator		Until the Annual Shareholder’s Meeting to be held on 2023
076.512.086-09	Operational Excellence and Risk Committee	0	07/04/1985		

Alternate Member of the Board of Directors		No	N/A		0%
Marcelo Gasparino da Silva	Other Committees	Member of the Committee (Full Member)	Lawyer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
807.383.469-34	Operational Excellence and Risk Committee	0	02/13/1971	05/18/2021	0%
Independent Member of the Board of Directors and Coordinator of the Sustainability Committee		No	N/A		
Antônio Umberto Benetti Queiroz	Other Committees	Specialist and External Member	Chemical Engineer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
925.682.468-04	Operational Excellence and Risk Committee	1	12/21/1958	05/18/2021	100%
N/A		Yes	-		
José Maurício Pereira Coelho	Finance Committee	Coordinator	Bank clerk	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
853.535.907-91	N/A	0	08/04/1966	05/18/2021	0%
Member of the Board of Directors		No	N/A		
Fernando Jorge Buso Gomes	Finance Committee	Member of the Committee (Full Member)	Bank clerk	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
370.624.177-34	N/A	4	06/06/1956	05/18/2021	100%
Vice-Chairman of the Board of Directors and Member of the People, Compensation and Governance Committee		No	N/A		
Roberto da Cunha Castello Branco	Finance Committee	Member of the Committee (Full Member)	Economist and Executive	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
031.389.097-87	N/A	0	07/20/1944	05/18/2021	0%
Independent Member of the Board of Directors and Coordinator of the Innovation Committee		No	N/A		
Murilo César Lemos dos Santos Passos	Finance Committee	Member of the Committee (Full Member)	Chemical Engineer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
269.050.007-87	N/A	1	07/06/1947	05/18/2021	100%

Independent Member of the Board of Directors		No	N/A		
Adriano Cives Seabra	Finance Committee	Specialist and External Member	Engineer		Until the Annual Shareholder's Meeting to be held on 2023
016.480.547-81	N/A	1	06/19/1972		100%
N/A		Yes	-		
Roberto da Cunha Castello Branco	Other Committees	Coordinator	Economist and Executive	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
031.389.097-87	Innovation Committee	0	07/20/1944	05/18/2021	0%
Independent Member of the Board of Directors and Coordinator of the Innovation Committee		No	N/A		
Roger Allan Downey	Other Committees	Member of the Committee (Full Member)	Administrator	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
623.291.626-34	Innovation Committee	0	04/01/1967	05/18/2021	0%
Independent Member of the Board of Directors and Coordinator of the Operational Excellence and Risk Committee		No	N/A		
Ken Yasuhara	Other Committees	Member of the Committee (Full Member)	Bachelor's degree in business administration	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
234.081.558-44	Innovation Committee	0	01/02/1978	05/18/2021	0%
Member of the Board of Directors		No	N/A		
Luiz Carlos Affonso	Other Committees	Specialist and External Member	Engineer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
049.726.428-58	Innovation Committee	0	05/10/1960	05/18/2021	0%
N/A		Sim	-		
Mauro Gentile Rodrigues da Cunha	Other Committees	Coordinator	Consultant	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
004.275.077-66		0	11/06/1971	05/18/2021	0%

	People, Compensation and Governance Committee				
Independent Member of the Board of Directors and Interim Coordinator of the Audit Committee		No			
Fernando Jorge Buso Gomes	Other Committees	Member of the Committee (Full Member)	Bank clerk	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
370.624.177-34	People, Compensation and Governance Committee	3	06/06/1956	05/18/2021	100%
Vice-Chairman of the Board of Directors and Member of the Financial Committee		No	N/A		
José Luciano Duarte Penido	Other Committees	Member of the Committee (Full Member)	Mining Engineer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
091.760.806-25	People, Compensation and Governance Committee	0	03/08/1948	05/18/2021	0%
Independent Chairman of the Board of Directors and Member of the Sustainability Committee.		No	N/A		
Manuel Lino Silva de Sousa Oliveira	Other Committees	Member of the Committee (Full Member)	Economist	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
-	People, Compensation and Governance Committee	0	03/03/1952		0%
Independent Member of the Board of Directors and Coordinator of the Audit Committee		No	N/A		
Oscar Augusto Camargo Filho	Other Committees	Specialist and External Member	Lawyer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
030.754.948-87	People, Compensation and Governance Committee	0	03/09/1938	05/18/2021	0%
N/A		No	N/A		
Marcelo Gasparino da Silva	Other Committees	Coodinator	Lawyer	05/18/2021	Until the Annual Shareholder's Meeting to be held on 2023
807.383.469-34	Sustainability Committee	1	02/13/1971	05/18/2021	100%

Independent Member of the Board of Directors Member of the Operational Excellence and Risk Committee		No	N/A		
Eduardo Oliveira Rodrigues	Other Committees	Member of the Committee (Full Member)	Engineer	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
442.810.487-15	Sustainability Committee	0	08/20/1954	05/18/2021	0%
Member of the Board of Directors and Member of the Operational Excellence and Risk Committee		No	N/A		
Rachel de Oliveira Maia	Other Committees	Member of the Committee (Full Member)	Accountant	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
143.363.438-45	Sustainability Committee	0	01/30/1971	05/18/2021	0%
Independent Member of the Board of Directors		No	N/A		
José Luciano Duarte Penido	Other Committees	Member of the Committee (Full Member)	Mining Engineer	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
091.760.806-25	Sustainability Committee	1	03/08/1948	05/18/2021	100%
Independent Chairman of the Board of Directors and Member of the People, Compensation and Governance Committee		No	N/A		
Carlos Alberto de Oliveira Roxo	Other Committees	Specialist and External Member	Engineer	05/18/2021	Until the Annual Shareholder’s Meeting to be held on 2023
149.606.807-68	Sustainability Committee	1	02/04/1948	05/18/2021	100%
N/A		Yes			

Professional Experience/ Statement of Possible Convictions/ Independence Criterion

Luciano Siani Pires
013.907.897-56

Executive Officer of Finance and Investor Relations and a non-independent coordinator of the Executive Committee for Business Risks - Strategic, Financial and Cyber (since August 2019). He has held positions at the Company as (i) Member of Vale's Information Disclosure Committee (2012 to 2020); (ii) Alternate Member of the Board of Directors (2005 to 2007) and Permanent Member of the Financial Committee (from 2012 to 2015); (iii) Global Strategic Planning Director (2008 to 2009 and in 2011); (iv) Global Director of Human Resources (from 2009 to 2011), (v) Executive Director of Finance, Supplies, Shared Services and Investor Relations (2012 to 2013). He was also an effective member of the Board of Directors of Valepar SA (2007 to 2008), a privately held holding company that exercised control of Vale until 08/14/2017, when it was merged into Vale, and (vi) Chairman of the Executive Risk Committee (from 2017 to July 2019). His main professional experiences in the last 5 years also include: (i) Chairman of the Board of Directors of VLI SA (since September 2017), a company in the logistics industry; (ii) Member of the Board of Directors of The Mosaic Company (since January 2018), a company located in the United States of America, in the fertilizer business. He graduated in mechanical engineering from the Pontifical Catholic University of Rio de Janeiro - PUC-RJ, in December 1991, and holds an MBA in Finance from the Stern School of Business, New York University, completed in May 2001. Mr. Luciano Siani Pires declared, for all legal purposes, that, in the last 5 years, she has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by a final decision, in the judicial or administrative, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Luciano Siani Pires declared that he was not a politically exposed person, as defined in the applicable regulations.

Carlos Henrique Senna Medeiros

048.556.228-69

Executive Officer of Safety and Operational Excellence at Vale (since June 2019), in addition to non-independent coordinator of the Executive Committee for Business Risks - Operational (since August 2019) and the Executive Committee for Business Risks - Geotechnics (since August, 2019) 2019). His main professional experiences in the last 5 years include: (i) President North and Central America of Ball Corporation (between May 2017 and June 2019), a company in the United States in the aluminum packaging business, where he also held the position of President of South America (between June 2016 and April 2017); (ii) President South America of Rexam plc (between October 2012 and May 2016), a company in England in the aluminum packaging business; and (iii) Chairman of the Board of Directors of Envases de Centro America (between September 2014 and June 2019), an aluminum packaging company in Guatemala. He graduated in Aeronautical and Mechanical Engineering from Instituto Tecnológico de Aeronáutica in December 1985, completed a specialization in Marketing from the Escola Superior de Propaganda e Marketing in December 1997, as well as a Senior Executive Program from Stanford University in August 2001. Mr. Carlos Henrique Senna Medeiros stated, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by a final and unappealable decision, in the judicial or administrative, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Carlos Henrique Senna Medeiros declared that he was not a politically exposed person, as defined in the applicable regulations.

Alexandre Silva D'Ambrosio

042.170.338-50

Legal Executive Officer at Vale, where he also holds the positions of a non-independent member of the Conduct and Integrity Committee and the Business Risk Executive Committee - Compliance. His main professional experiences in the last 5 years include: (i) Statutory Director of Vale International (since June 2018) (ii) Member of the Board of Directors of Vale Nouvelle Calédonie (since June 2018) (iii) Member of the Board of Directors Vale PT - Indonesia (since June 2018) (iv) Vale's General Consultant (between March 2018 and March 2021), (v) Executive Vice President (Statutory) of Banco Santander SA (between March 2016 and March 2018), (vi) General Consultant and Global Executive Vice President (Statutory Director) of the Votorantim Group - holding company (between June 2013 and March 2016). He graduated in Law from the University of São Paulo (in December 1984), completed a specialization in Law from Harvard Law School, Cambridge (in 1986) and Juris Doctor from the National Law Center, George Washington University (in 1989). Mr. Alexandre Silva D'Ambrosio declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Alexandre Silva D'Ambrosio declared that he was not a politically exposed person, as defined in the applicable regulations.

Marina Barrenne de Artagão Quental

772.073.197-20

Executive Officer of People at Vale, where she also holds the position of non-independent member of the Conduct and Integrity Committee. Her main professional experiences in the last 5 years include: (i) People Director at Vale (since November 2017), (ii) Vice President of Human Resources at Raízen, a company in the energy and agribusiness sector, a joint venture between Royal Dutch Shell and Cosan (between April 2011 and November 2017), (iii) Vice-President of the Brazilian Association of Human Resources RJ (since

December 2014). She graduated in Psychology from PUC / RJ (in December 1986), completed an MBA from Fundação Dom Cabral (in December 2003). Ms. Marina Barrenne de Artagão Quental declared, for all legal purposes, that, in the last 5 years, she has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the judicial or administrative sphere, which has suspended or disqualified it for the practice of any professional or commercial activity. Ms. Marina Barrenne de Artagão Quental declared that she was not a politically exposed person, as defined in the applicable regulations.

Ricardo Henrique Baras

103.564.968-30

Mr. Ricardo Henrique Baras is not an independent member of the Conduct and Integrity Committee. His main professional experiences in the last 5 years include: **(i)** Vale's Audit Executive Officer (since August 2013) and Acting General Ombudsman (since March 2020), and **(ii)** Assistant Audit Executive Officer of Alcoa Alumínio SA (between March and July 2013). Graduated in Business Administration from Pontifical Catholic University of São Paulo (May 1990) and completed a post-graduate degree in Controllershship from Álvares Penteado Foundation (October 1994). Mr. Ricardo Henrique Baras has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Ricardo Henrique Baras has declared that he is not a politically exposed person, as defined in the applicable regulations.

Rodrigo Ramos Silveira

120.682.788-20

Mr. Rodrigo Ramos da Silveira is not an independent member of the Business Risks Executive Committee - Geotechnical Risks and of the Business Risks Executive Committee - Operational Risks. His main professional experiences in the last 5 years include: **(i)** Health, Safety and Environment Executive Officer (from 2016 to 2018) at Dow Chemical, a chemical products company in the USA and Canada; and **(ii)** Operations Executive Officer (from 2012 to 2016) at Dow Brasil S.A., an publicly-held company in the chemical industry. Graduated in Chemical Engineering from UFBa (January 1995) and completed a Masters in Business Administration at UFBa (June 2004). Mr. Rodrigo Ramos Silveira has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Rodrigo Ramos Silveira has declared that he is not a politically exposed person as defined in the applicable regulations.

Kleger Duque de Almeida Filho

583.594.866-20

Mr. Kleger Duque de Almeida Filho is not an independent member of the Business Risks Executive Committee - Operational Risks and of the Business Risks Executive Committee - Geotechnical Risks. His main professional experiences in the last 5 years include: **(i)** Vale's Capital Projects Executive Officer (from November 2012 to April 2014); **(ii)** Vale's Non-Ferrous Products Projects and Project Management Executive Officer (from June 2014 to December 2016); **(iii)** Vale's Project Development and Implantation Executive Manager (from January 2017 to March 2019), and **(iv)** Vale's Asset Management Officer (since August 2019). Graduated in Civil Engineering from Federal University of Minas Gerais in July 1989, completed a MBA in Business Management from Dom Cabral Foundation in 1997, postgraduate degree in Economics, Finance and Business from Getúlio Vargas Foundation in 1999, and in Project Management from Technical Education Institute (IETEC) in 2002. Mr. Kleger Duque de Almeida Filho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Kleger Duque de Almeida Filho has declared that he is not a politically exposed person as defined in the applicable regulations.

Luis Eduardo Simonetti Baroni

047.695.448-71

Mr. Luis Eduardo Simonetti Baroni is not an independent member of the Business Risks Executive Committee - Operational Risks and of the Business Risks Executive Committee - Geotechnical Risks. His main professional experiences in the last 5 years include: **(i)** Engineering Executive Officer at CSN, a publicly held company in the mining sector (from January 2015 to March 2017); **(ii)** Vice-president of Engineering and Implantation at INVEPAR, a publicly held company in the infrastructure sector (from June 2017 to December 2018), and **(iii)** Vale's Operational Excellence Executive Officer (since May 2019). Mr. Luis Eduardo Simonetti Baroni graduated in Electronic Engineering from Senator Flaquer University in February 1992, and completed a post-graduation in Electronic Engineering from São Judas Tadeu University in March 1999. Mr. Luiz Eduardo Simonetti Baroni has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the

Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Luis Eduardo Simonetti Baroni has declared that he is not a politically exposed person as defined in the applicable regulations.

Carlos Rodrigues de Campos Mello Junior

221.030.278-17

Mr. Carlos Rodrigues de Campos Mello Junior is not an independent member of the Business Risks Executive Committee - Operational Risks and of the Business Risks Executive Committee - Geotechnical Risks. His main professional experiences in the last 5 years include: **(i)** Operations Executive Officer at Carajás Railway, owned by Vale (from July 2013 to July 2014), and **(ii)** Chief Executive Officer (CEO) at 4Legacy Ventures: Innovation and Technology (from January 2015 to March 2018); **(iii)** Head of the Excellence Center at Vale (from April 2018 and July 2019); and **(iv)** Engineering and Asset Management Executive Officer at Vale (since August 2019). Mr. Carlos Rodrigues de Campos Mello Junior graduated in civil engineering from the Paulista State University - (UNESP/Bauru) in January 2005, completed a post-graduation in railway engineering from Pontifical Catholic University of Minas Gerais in July 2005 and an Executive MBA from Dom Cabral Foundation in July 2010. Mr. Carlos Rodrigues de Campos Mello Junior has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Carlos Rodrigues de Campos Mello Junior has declared that he is not a politically exposed person as defined in the applicable regulations.

Túlio Weber Drumond Santos

801.735.516-53

Mr. Túlio Weber Drumond Santos is an independent member of the Business Risks Executive Committee - Geotechnical Risks. His main professional experiences in the last 5 years include: **(i)** Vale's MFE Integrated Planning General Manager (from 2013 to 2015), **(ii)** Vale's MFE Value Chain Integrated Planning Manager (from 2016 to 2019); **(iii)** Vale's Ferrous Products Integrated Chain Planning Executive Manager, Mozambique Support (since August 2019). Mr. Túlio Weber Drumond Santos graduated in Mining Engineering at Federal University of Minas Gerais in December 1991, completed a specialization course "Open pit mining" from CENTEK - University of Lulea, in Sweden, in August 1996, a Master's in "Open pit mining - geotechnics" from École des Mines de Paris, France, in 2004, and an MBA in Business Management from Dom Cabral Foundation in 2008. Mr. Túlio Weber Drumond Santos has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Túlio Weber Drumond Santos has declared that he is not a politically exposed person as defined in the applicable regulations.

Eduardo de Barros Montarroyos

848.170.037-15

Mr. Eduardo de Barros Montarroyos is not an independent member of the Business Risks Executive Committee - Strategic, Finance and Cyber Risks and of the Business Risks Executive Committee - Compliance Risks of Vale and of the Business Risks Executive Committee - Sustainability and Institutional Relations. His main professional experiences in the last 5 years include: **(i)** Vale's Financial Services Executive Manager (from August 2014 to December 2016); and **(ii)** Vale's Internal Controls, Risks and Compliance Executive Manager (since January 2017). He graduated in Mathematics Informatics Modality from State University of Rio de Janeiro (UERJ), completed an MBA in Financial Management at Alberto Luiz Coimbra Institute - Coordination of Graduate Studies and Engineering Research (COPPE) in April 1999 and MBA in Business Management at University of Sao Paulo in February 2001. Mr. Eduardo de Barros Montarroyos has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Eduardo de Barros Montarroyos has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcio Felipe Milheiro Aigner

035.853.907-22

Mr. Marcio Felipe Milheiro Aigner is not an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks. His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of VLI - Valor da Logística Integrada (from January 2019 to April 2019); **(ii)** Executive Officer at Salobo Metais S.A. (since May 2018); **(iii)** Vale Overseas Ltd. Executive Officer (since June 2018); **(iv)** Member of the Board of Directors at Vale Internacional S.A. (since August 2018); **(v)** Member of the Deliberative Board of Vale do Rio Doce de Seguridade Social - Valia Foundation (since April 2018); **(vi)** Alternate Member of the Board of Directors of VLI - Valor da Logística Integrada (since April 2019); and **(vii)** Treasury and Corporate Finance Officer at Vale (since April 2018). Graduated in Business Administration from Souza Marques

College in December 1995, and completed an MBA in Business Management at Dom Cabral Foundation in December 2006. Mr. Marcio Felipe Milheiro Aigner has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Marcio Felipe Milheiro Aigner has declared that he is not a politically exposed person as defined in the applicable regulations.

Juan Franco Merlini

011.903.586-38

Mr. Juan Franco Merlini is not an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks. His main professional experiences in the last 5 years include: **(i)** Vale's Corporate Finance Executive Manager (from July 2010 to January 2017); **(ii)** Global Treasury Executive Manager (from February 2017 to June 2018); and **(iii)** Vale's Base Metals Finance and Business Development Executive Officer (since July 2018). Graduated in Electrical Engineering from Pontifical Catholic University of Minas Gerais in December 1998, and completed a post-graduation in Business at Getúlio Vargas Foundation (FGV/RJ) in December 1999 and an MBA in Corporate Finance at the Brazilian Institute of Capital Markets (IBMEC) in December 2001. Mr. Juan Franco Merlini has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Juan Franco Merlini has declared that he is not a politically exposed person as defined in the applicable regulations.

Fabio de Souza Queiroz Ferraz

136.132.108-35

Mr. Fabio de Souza Queiroz Ferraz is an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks. His main professional experiences in the last 5 years include: **(i)** Head of Corporate & Investment Banking at Banco Pine (from April 2013 to 2016); **(ii)** Head of Corporate & Investment Banking at Banco Haitong (from 2016 to 2018); **(iii)** Merger and Acquisitions Executive Officer at Vale (since March 2018); **(iv)** Officer and Partner at Hanalei (Brasil) Family Office (since 2016); **(v)** Officer and Partner at Montecito - (BVI) Family Office (since 2016); and **(vi)** Officer and Partner at Montecito - Corbets/Ventures Ltd - BVI Executive Officer Family Office (since 2016). He graduated in Business Administration at Getúlio Vargas Foundation - São Paulo (FGV/SP) in March 1990, and completed an MBA at the University of Michigan in May 1994. Mr. Fabio de Souza Queiroz Ferraz has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Fabio de Souza Queiroz Ferraz has declared that he is not a politically exposed person as defined in the applicable regulations.

José Cláudio Cyrineu Terra

106.244.378-09

Mr. Juan Franco Merlini is not an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks of Vale, where he also holds the position of Technology Executive Officer (since December 2020). His main professional experiences in the last 5 years include: **(i)** Alternate Member of the Board of Directors of the Technology Park of São José dos Campos (since August 2020), an innovation and entrepreneurship complex; and **(ii)** Executive Officer of Innovation and Digital Transformation at the Hospital Israelita Albert Einstein (from April 2014 to November 2020), health sector. He graduated in Production Engineering at POLI-USP in December 1987, completed Master's Degree in Business Administration at FEA-USP in March 1992 and PhD in Production Engineering at POLI-USP in March 1999. Mr. José Cláudio Cyrineu Terra has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Cláudio Cyrineu Terra has declared that he is not a politically exposed person as defined in the applicable regulations.

Rogério Tavares Nogueira

882.737.416-72

Mr. Rogério Tavares Nogueira is not an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks of Vale. His main professional experiences in the last 5 years include: **(i)** Vale's Investor Relations Executive Officer (from December 2013 to September 2015); **(ii)** Vale's Controllershship and Investor Relations Executive Officer (from September 2015 and September 2017); and **(iii)** Vale's Ferrous Products Marketing Executive Officer. He holds a degree in Metallurgical Engineering from the Federal university of Minas Gerais in December 1991, a Master's degree in Metallurgical Engineering from the Federal University of the State of in December 1993, and

completed a MBA at the University of Texas (Austin, USA) in May 1997. Mr. Rogerio Tavares Nogueira has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Rogerio Tavares Nogueira has declared that he is not a politically exposed person as defined in the applicable regulations.

Ricardo Monte Alto de Almeida

071.501.087-50

Mr. Ricardo Monte Alto de Almeida is not an independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks of Vale, where he also holds the position of Technology Executive Officer (since November 2020). His main professional experiences in the last 5 years also include: Vice President at Wood Mackenzie Consulting (between 2015 and 2020), an energy consulting company. He graduated in Production Engineering at Federal University of Rio de Janeiro (UFRJ) in January 2000 and holds a Master's degree in Business Administration from USP, completed in December 2002. Mr. Ricardo Monte Alto de Almeida has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Ricardo Monte Alto de Almeida has declared that he is not a politically exposed person as defined in the applicable regulations.

André Moreira Santos

029.306.287-07

Mr. André Moreira Santos is not an independent member of the Business Risks Executive Committee - Compliance Risks. His main professional experiences in the last 5 years include: **(i)** Compensation and Performance Executive Manager at TV Globo/ Media and Entertainment (between August 2013 and March 2018) and **(ii)** Executive Manager of Compensation, Performance and HR Solutions of Vale (since March 2018). He graduated in Economics from PUC-RJ (in 2000), completed a Master's Degree in Business Administration from PUC-RJ (in 2004) and LLM - Corporate Law from IBMEC-RJ (in 2011). Mr. André Moreira Santos has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. André Moreira Santos has declared that he is not a politically exposed person as defined in the applicable regulations.

Hugo Guimarães Barreto Filho

403.170.487-91

Mr. Hugo Guimarães Barreto Filho is not an independent member of the Business Risks Executive Committee - Compliance Risks and Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation of Vale, where he also holds the position of Sustainability and Social Investment Executive Officer (since July 2019) having already held the following positions: **(i)** Chief Executive Officer of Vale Institute (since September 2019); **(ii)** Chief Executive Officer of Vale's Technological Institute Association – ITV (since June 2019); **(iii)** Vale's Social Investment (from January 2019 to June 2019); **(iv)** Chief Executive Officer of Vale Foundation (since January 2019) and **(v)** Member of the Strategic Council of Vale Institute (since September 2019). His main professional experiences in the last 5 years also include: Secretary General of Roberto Marinho Foundation (between June 1999 and December 2018). He holds a degree in Philosophy from PUC / Rio de Janeiro completed in July 2005. Mr. Hugo Guimarães Barreto Filho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by a decision at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Hugo Guimarães Barreto Filho has declared that he is not a politically exposed person as defined in the applicable regulations.

Octavio Bulcão Nascimento

465.419.855-53

Mr. Octavio Bulcão Nascimento is not an independent member of the Business Risks Executive Committee - Compliance Risks. He is Vale's Tax Officer since April 2013. He holds a degree in Law from the Catholic University of Salvador (UCSAL/BA) (December 1992), and a Master's degree in Tax Law from the Pontifical Catholic University of São Paulo (PUC/SP) (July 1999). Mr. Octavio Bulcão Nascimento has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Octavio Bulcão has declared that he is not a politically exposed person as defined in the applicable regulations.

Camilla dos Reis Claudio Soares

082.993.787-02

Mrs. Camilla dos Reis Claudio Soares is not an independent member of the Business Risks Executive Committee - Vale's Compliance Risks. She is a member of the Business Risks Committee - Compliance since August 2019 and hold the position of Corporate Integrity Manager of Vale (since December 2018). He holds a degree in: Law from the Federal University of Rio de Janeiro (December 2002) and completed a post-graduation in Business Law majoring in Intellectual Property at Getúlio Vargas Foundation (2007). Mrs. Camilla dos Reis Claudio Soares has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Camilla dos Reis Claudio Soares has declared that she is not a politically exposed person as defined in the applicable regulations.

Roberta Gomes de Oliveira

045.454.217-84

Mrs. Roberta Gomes de Oliveira is an independent member of the Business Risks Executive Committee - Compliance Risks of Vale (since August 2019) and the Conduct and Integrity Committee Committee (since February 2020). She is a member of the Business Risks Committee - Compliance Risks since September 2019 and is Vale's Corporate Legal Executive Manager (since October 2017). She holds a degree in: Law from the Federal University of Rio de Janeiro (December 1996). Her professional experiences in the last 5 years include: member of the Specialist Committee on Investments Advisory at Vale do Rio Doce Social Security Foundation - Valia (since January 2019). Mrs. Roberta Gomes de Oliveira has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Roberta Gomes de Oliveira has declared that he is not a politically exposed person as defined in the applicable regulations.

Bruno Santos Ferraz

045.463.317-38

Mr. Bruno Santos Ferraz is not an independent member of the Business Risks Executive Committee - Operations Risks of Vale (since September 2019) and of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation, (since December 2020) da Vale, where he also holds the position of Environmental Management Executive Manager (since September 2019), having already held the following positions: **(i)** General Manager of Environmental Technology (between 2011 and 2015 and between 2017 and 2019); **(ii)** General Manager of Integrated Management System, HSEQ - Health, Safety and Environment (between 2017 and 2019); and **(iii)** Sustainability Manager (between 2009 and 2011). His main professional experiences in the last 5 years also include: **(i)** Member of the Sustainability Committee of MRN (since February 2019), Vale's related company. He holds a degree in Civil Engineering from the Federal University of Rio de Janeiro in December 1998. He completed an Executive MBA in Finance at IBMEC-RJ (December 2006) and a post-graduation in Work Safety Engineering at IPETEC-RJ in June 2017. Mr. Bruno Santos Ferraz has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Bruno Santos Ferraz has declared that he is not a politically exposed person as defined in the applicable regulations.

Carlos Eduardo Bechara Miana

004.617.106-17

Mr. Carlos Eduardo Bechara Miana is an independent member of the Business Risks Executive Committee - Vale's Geotechnical Risks. He is a member of Vale's Business Risks Executive Committee - Geotechnical Risks since August 2019, where he also holds the position of Dam Decharacterization Executive Manager (since March 2019). He holds a degree in Civil Engineering from the Federal University of Minas Gerais (July 1997). He completed an Executive MBA in Business Management at IBMEC/MG (August 2002), a specialization course in Project Management at IBMEC/MG (August 2006) and an Executive MBA in Business Management at Dom Cabral Foundation in November 2009. His professional experiences in the last 5 years include positions as: Vale's South/Southeast Ferrous Products Capital Project Executive Officer (from May 2014 to August 2016) and Vale's North Mining Project Executive Manager (from August 2016 to May 2019). Mr. Carlos Eduardo Bechara Miana has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Carlos Eduardo Bechara Miana has declared that he is not a politically exposed person as defined in the applicable regulations.

Rafael Jabur Bittar

707.231.411-34

Mr. Rafael Jabur Bittar is an independent member of the Business Risks Executive Committee - Geotechnical Risks and of the Business Risks Executive Committee - Operational Risks. He is a member of the Business Risks Committee - Geotechnical Risks (since September 2019) and Business Risks Executive Committee - Operational Risks (since October 2019) and is Vale's Geotechnics Executive Officer (since September 2019). He holds a degree in Civil Engineering from the Federal University of Ouro Preto (December 2003). He completed a Master's in Civil Engineering - Geotechnics at the Federal University of Ouro Preto in August 2006 and a specialization in Civil Engineering at Getúlio Vargas Foundation in August 2011. His professional experiences in the last 5 years include the position of Tailings Management Officer at Yamana Gold, a company in the metal mining sector (from August 2012 to August 2019). Mr. Rafael Jabur Bittar has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Rafael Jabur Bittar has declared that he is not a politically exposed person as defined in the applicable regulations.

Geraldo Pimentel Mármore Sobrinho

FW443700

Mr. Geraldo Pimentel Mármore Sobrinho is a non-independent alternate member of the Business Risks Committee - Operational Risks (since January 2020) at Vale, where he also holds the position of Plant Maintenance Manager (since December 2019). His professional experience in the last 5 years include: **(i)** Mine Maintenance Manager at Companhia Siderúrgica Nacional, a company in the mining sector (from September 2011 and September 2018). He holds a degree in Mechanical Engineering from the Federal University of Minas Gerais (July 2001). Mr. Geraldo Pimentel Mármore Sobrinho has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Geraldo Pimentel Mármore Sobrinho has declared that he is not a politically exposed person as defined in the applicable regulations.

Leonardo Camona Xerinda

15AK40154

Mr. Leonardo Camona Xerinda is a non-independent alternate member of the Business Risks Executive Committee - Geotechnical Risks (since January 2020) at Vale, where he holds the position of Moatize Coal Mine Studies and Projects Development Manager (since October 2018) and has also held in the last 5 years, the following positions: **(i)** Mine Planning and Technical Services Manager (from January 2016 to October 2018); and **(ii)** Vale's Mine Operation General Manager (from October 2013 to January 2016). He holds a degree in Geology from Eduardo Mondlane University in Mozambique (October 2004). Mr. Leonardo Camona Xerinda has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Leonardo Camona Xerinda has declared that he is not a politically exposed person as defined in the applicable regulations.

Sonia Zagury

934.316.517-04

Mrs. Sonia Zagury is a non-independent alternate member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020) at Vale, where she also holds the position of New Business Officer (since March 2018) and has held the position of Treasury and Finance Executive Officer (from November 2011 to March 2018). Her professional experience in the last 5 years also include: **(i)** Member of the Deliberative Council of Vale do Rio Doce Social Security - VALI, a non-profit private supplementary social security entity, created by Vale (since May 2017); **(ii)** Member of the Board of Directors of MRS Logística S.A. (since November 2017); **(iii)** Chairman of the Board of Directors of Companhia Siderúrgica do Pecém - CSP (since August 2017); and **(iv)** Advisor at Vale Internacional (from December 2011 to March 2018). She holds a degree in Economics from the Federal University of Rio de Janeiro (December 1989), completed a specialization course in Business Administration at Dom Cabral Foundation in December 1992 and a Master's in Economics at Pontifical Catholic University of Rio de Janeiro in May 1994. Mrs. Sonia Zagury has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Sonia Zagury has declared that she is not a politically exposed person as defined in the applicable regulations.

Bruna Paiva Maffra

048.495.276-55

Mrs. Bruna Paiva Maffra is not an independent member of the Business Risks Executive Committee - Operational Risks. She is an Alternate Member of Vale's Business Risks Executive Committee - Operational Risks (since January 2020), where she holds the position of Management Operational Excellence Executive Manager (since September 2019). Her professional experience in the last 5 years also includes: **(i)** Vale's Base Metals Operational Excellence Manager (from April 2017 to August 2019); **(ii)** Vale's Continuous Improvement General Management (from January 2015 to March 2017); and **(iii)** Vale's Operational Development Manager (from September 2013 to January 2015). She holds a degree in Business Administration from IBMEC (December 2004), completed an Executive MBA at IBMEC (2007), an specialization course on Project Management from IBMEC (May 2012), and a doctorate in Lean Manufacturing from the University of Michigan (May 2014). Mrs. Bruna Paiva Maffra has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Bruna Paiva Maffra has declared that she is not a politically exposed person as defined in the applicable regulations.

Claudemir Peres

091.186.668-09

Mr. Claudemir Peres is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risks (since January 2020) and non-independent alternate secretary of Vale's the Business Risks Executive Committee - Operational Risks (since November 2019), where he holds the position of Operational Risk and Process Safety Executive Manager (since August 2019). His professional experience in the last 5 years include: **(i)** Partner at Veneto Gastronomia Italiana Ltda., a company in the gastronomy sector (since August 2019), **(ii)** Partner at Beloved Beast Veterinary Clinic, a company in the veterinary medicine sector (since April 2017); and **(iii)** Industrial Executive Manager at Oxiten S.A. Indústria e Comércio (Ultrapar) (from 2015 to 2019). He holds a degree in Industrial Chemistry from Higher School of Chemistry Oswaldo Cruz in December 1993. He completed a specialization course in Quality and Productivity at University of São Paulo / Vanzolini Foundation (December 1994) and an Executive MBA at INSPER/IBMEC in December 2007. Mr. Yoshitomo Nishimitsu has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Claudemir Peres has declared that he is not a politically exposed person as defined in the applicable regulations.

Claudio Augusto Mendes

821.711.496-04

Mr. Claudio Augusto Mendes is not an independent member of the Business Risks Executive Committee - Geotechnical Risks. He is an Alternate Member of Vale's Business Risks Executive Committee - Geotechnical Risks (since January 2020), where he also holds the position of Technical Operational Excellence Executive Manager (since June 2019). His professional experience in the last 5 years include: **(i)** Vale's EFC Operations Executive Manager (from April 2018 to June 2019); **(ii)** Vale's EFC Operations Executive Manager (from May 2015 to April 2018); and **(iii)** Vale's Porto Norte Operations Executive Officer (from July 2013 to January 2015). He holds a degree in Industrial Mechanical Engineering from University of Itaúna Foundation in December 1988, and completed a specialization course in Engineering at Institute of Technological Education - IETEC in December 2002, and an MBA in Business Management at Dom Cabral Foundation in December 2006. Mr. Claudio Augusto Mendes has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Claudio Augusto Mendes has declared that he is not a politically exposed person as defined in the applicable regulations.

Fernando Campos Guimarães

687.293.596-00

Mr. Fernando Campos Guimarães is an independent member of the Business Risks Executive Committee - Operational Risks. He is an Alternate Member of Business Risks Executive Committee - Operational Risks (since January 2020), where he also holds the position of Industrial Facilities Assets Management Executive Manager (since June 2019). His professional experience in the last 5 years include: **(i)** Vale's North Quality and Engineering Manager (from March 2018 to May 2019); **(ii)** Vale's Project S11D Senior Engineering Leader (from October 2012 to February 2018). He holds a degree in Mechanical Engineering from the Pontifical Catholic University of Minas Gerais in July 1988. He completed a

post-graduation in Business Management at Dom Cabral Foundation (December 1999) and in Engineering at Pontifical Catholic University of Minas Gerais in February 2005. Mr. Fernando Campos Guimarães has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Fernando Campos Guimarães has declared that he is not a politically exposed person as defined in the applicable regulations.

Lucas Barros Duarte

049.864.816-81

Mr. Lucas Barros Duarte is not an independent member of the Business Risks Executive Committee - Operational Risks and non-independent alternate secretary of the Business Risks Executive Committee - Geotechnical Risks of Vale. He is an alternate member of Vale's Business Risks Executive Committee - Operational Risks (since January 2020) and alternate secretary of Vale's Business Risks Executive Committee - Geotechnical Risks (since November 2019), where he also holds the position of Geotechnics Corporate Manager (since September 2019). His professional experience in the last 5 years include: **(i)** Geotechnical Engineer at WSP Canada Inc. (from March 2017 to September 2019); and **(ii)** Geotechnical Engineer at Amec Foster Wheeler (from October 2014 to February 2017). He holds a degree in Civil Engineering from Federal University of Minas Gerais (August 2006), and completed a Master's in Geotechnics at the Federal University of Minas Gerais in August 2012. Mr. Lucas Barros Duarte has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Lucas Barros Duarte has declared that he is not a politically exposed person as defined in the applicable regulations.

Eduardo Amiel Pfiffer

029.438.037-07

Mr. Eduardo Amiel Pfiffer is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020), where he also holds the position of Market Intelligence and Analysis Executive Manager (since October 2019); he has previously held, in the last 5 years, the position of Market Intelligence General Manager (from October 2011 to September 2019). He holds degrees in Economics from the Federal University of Rio de Janeiro (UFRJ) in April 1996 and Law from Universidade Federal Fluminense (July 2020), and completed a course on Finance at Alberto Luiz Coimbra Institute - COPPE/UFRJ - Coordination of Graduate Programs and Engineering Research in December 1998 and holds a Master's degree in Business Administration from the Pontifical Catholic University do Rio de Janeiro in December 2004. Mr. Eduardo Amiel Pfiffer has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Eduardo Amiel Pfiffer has declared that he is not a politically exposed person as defined in the applicable regulations.

Patricia Silva Rodrigues Scheel

034.213.646-13

Mrs. Patricia Silva Rodrigues Scheel is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020), where also holds the positions of International Treasury Executive Manager and Vale's Country Manager in the Netherlands (since December 2019); in the last 5 years she has also held the positions of **(i)** Corporate Finance Executive Manager (from April 2018 to December 2019); **(ii)** Mergers, Acquisitions and Divestments Executive Manager (from June 2016 to April 2018); **(iii)** Mergers, Acquisitions and Divestments Manager (from April 2015 to June 2016); and **(iv)** M&A Evaluations Manager (from June 2013 and April 2015). She holds a degree in Aeronautic Infrastructure Engineering from Technological Institute of Aeronautics (ITA) (December 2000), having completed a Master's in Finance at the London Business School (June 2005). Mrs. Patricia Silva Rodrigues Scheel has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Patricia Silva Rodrigues Scheel has declared that she is not a politically exposed person as defined in the applicable regulations.

Diogo Augusto Monteiro

035.697.266-65

Mr. Diogo Augusto Monteiro is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risks (since January 2020), where he also holds the position of Long Term Mine Planning Executive Manager (since 2019); in the last 5 years he has held the following positions: **(i)** North Corridor Planning, Programming, Geotechnics and Management Executive Manager (from December 2017 to June 2019); **(iii)** Carajás Mine Planning and Development General Manager (from 2013 to 2015); **(iv)**

South Planning, Programming and Economic Management Executive Manager (from May 2015 to December 2017). He holds a degree in Mining Engineer from Federal University of Ouro Preto in May 2002. Mr. Diogo Augusto Monteiro has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Diogo Augusto Monteiro has declared that he is not a politically exposed person as defined in the applicable regulations.

Viktor Nigri Moszkowicz

081.994.337-10

Mr. Viktor Nigri Moszkowicz is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020), where he also holds the position of Insurance and Financial Risks Manager (since September 2018), and in the last 5 years he has previously held the following positions: **(i)** Vale's Financial Risks Manager (from August 2017 to September 2018); **(ii)** Trade Desk Manager (from June 2016 to July 2017); and **(iii)** Treasury for Financial Engineering and Backoffice General Manager of Vale (from July 2014 and June 2016). His main professional experiences in the last 5 years include: **(i)** Alternate Member of the Deliberative Council at Vale do Rio Doce Social Security Foundation- Valia (since April 2018), where he has also held the positions of **(ii)** Member of the Deliberative Council (from March 2015 to April 2018); and **(iii)** Member of Gaspetro's Board of Directors, a holding company in Local Gas Distribution Companies (since December 2019). He holds a degree in Mechanical Engineering from Federal University of Rio de Janeiro (UFRJ) (January 2001), having completed a Master's in Industrial Engineering at Pontifical Catholic University of Rio de Janeiro in March 2003 and Master in Business Administration at the Chicago University in June 2009. Mr. Viktor Nigri Moszkowicz has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Viktor Nigri Moszkowicz has declared that he is not a politically exposed person as defined in the applicable regulations.

Diogo Afonso Costa

034.623.516-21

Mr. Diogo Afonso Costa is a non-independent member of Vale's Business Risks Executive Committee - Geotechnical Risks (since January 2020), where he also holds the position of Closed Mines Executive Officer (since August 2019). His professional experience in the last 5 years include: **(i)** Operations Officer for the Córrego Sítio Complex of AngloGold Ashanti, an international mining company operating in South Africa listed in International Stock Exchanges (from February 2019 to July 2019), where he has also held the following positions: **(ii)** Operations Officer at Mineração Serra Grande (from June 2017 to January 2019); **(iii)** Senior Exploration, Geology and Long Term Planning Manager (from March 2016 to May 2017); and **(iv)** Senior Mining Manager (from July 2014 to March 2016). He holds a degree in Geology from the Federal University of Minas Gerais in May 2002. He completed a post-graduation in Businesses at the University of Cape Town, Graduate School of Business in Cape Town, South Africa in May 2006, a specialization course in Business Management at Dom Cabral Foundation (FDC) in January 2010 and a post-graduation in Business at the Kellogg School of Management in July 2015. Mr. Diogo Afonso Costa has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Diogo Afonso Costa has declared that he is not a politically exposed person as defined in the applicable regulations.

Milena Jorge Martins

026.876.337-20

Mrs. Milena Jorge Martins is a non-independent alternate member of Vale's Business Risks Executive Committee - Compliance Risk (since January 2020), where she also holds the position of Engagement, Culture and Talents Executive Manager (since April 2019). Her professional experience in the last 5 years include: **(i)** Vice President of Human Resources for Latin America (from February 2011 to October 2018) at Shell Brasil Ltda., a company in the oil and gas sector. She holds a degree in Business Administration from Universidade Federal Fluminense in December 1996. Mrs. Milena Jorge Martins has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Milena Jorge Martins has declared to be a politically exposed person, for her sister, Mrs. Idalice Jorge Martins is the Communication Secretary of the city of Três Rios.

Frank Marcos da Silva Pereira

GA699135

Mr. Frank Marcos da Silva Pereira is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risks (since January 2020), where he also holds the position of Dam Engineering Executive Manager (since May 2019). His professional experience in the last 5 years also include: **(i)** Dam Projects Manager at Companhia Siderúrgica Nacional (from June 2018 to May 2019). He holds a degree as Electronics Technician from the Municipal Technical School Fathers of Labor in December 1996. He holds a degree in Civil Engineer from Federal University of Ouro Preto in January 2004. He completed a Master's in Geotechnics at Federal University of Ouro Preto in December 2019 and with doctorate in progress in Geotechnics at Federal University of Ouro Preto. Mr. Frank Marcos da Silva Pereira has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Frank Marcos da Silva Pereira has declared that he is not a politically exposed person as defined in the applicable regulations.

Luiz Antonio R. R. Scavarda do Carmo

014.495.707-80

Mr. Luiz Antonio R. R. Scavarda do Carmo is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020), where he also holds the position of Procurement Strategic Management Manager (since May 2018); in the last 5 years he has already held the positions of Global Supply General Manager and Real State Manager at Vale (from March 2010 to May 2018). He holds a degree in Electrical Engineering from Pontifical Catholic University of Rio de Janeiro (December 1996), is graduated in Financial Administration by Getúlio Vargas Foundation in December 1997 and completed his Master's in International Management at King's College – University of London in September 2001. Mr. Luiz Antonio R. R. Scavarda do Carmo has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Luiz Antonio R. R. Scavarda do Carmo has declared that he is not a politically exposed person as defined in the applicable regulations.

Dan Harif

002.260.247-09

Mr. Dan Harif is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since January 2020), where he also holds the position of Market Information Security IT Manager (since July 2016); he has previously (in the last 5 years) held the position of Information Technology Manager - Center (from August 2014 to July 2016). He holds a degree as Data Processing Technician from Pontifical Catholic University of Rio de Janeiro in December 1993. Mr. Yoshitomo Nishimitsu has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Dan Harif has declared that he is not a politically exposed person as defined in the applicable regulations.

Rafael Gomes Martinez

034.006.577-00

Mr. Rafael Gomes Martinez is a non-independent alternate member of Vale's Business Risks Executive Committee - Compliance Risk (since January 2020) and Vale's Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020), where he also holds the position of Territorial Development and Relationship with Communities Executive Manager (since September 2019). His professional experience in the last 5 years includes: position of Strategic Planning Officer at GranEnergia (from April 2012 to September 2019). He holds a degree in Mechanical and Production Engineering from Pontifical Catholic University of Rio de Janeiro in June 1996, and completed an Executive MBA in Finance at Getúlio Vargas Foundation in December 1997 and an Executive MBA in Marketing at IBMEC in October 1999, as well as a Master's in International Education Policies at Harvard Graduate School of Education in June 2005. Mr. Rafael Gomes Martinez has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. O Sr Rafael Gomes Martinez has declared to be a politically exposed person as defined in the applicable regulations, due to Paulo Guedes, his ex partner in BR Investimentos, is Minister of Economy of Brazil, since 2019.

Guilherme Alves de Melo

315.225.838-07

Mr. Guilherme Alves de Melo is a non-independent alternate member of Vale's Business Risks Executive Committee - Operational Risks (since February 2020), where he also holds the position of Operations Support Manager (since October 2019); he has already held the positions, in the last 5 years, of **(i)** Vale's Environmental Analyst (from October 2011

and May 2018); and **(ii)** Environment Specialist (from May 2018 to November 2019). He holds a degree in Environmental Engineering from Oswaldo Cruz Colleges (December 2008), and completed his Master's in Industrial Chemical Processes at Technological Research Institute - IPT in June 2012. Mr. Guilherme Alves de Melo has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Guilherme Alves de Melo has declared that he is not a politically exposed person as defined in the applicable regulations.

Michael Gerald Duffy

HK207423

Mr. Michael Gerald Duffy is a non-independent alternate member of Vale's Business Risks Executive Committee - Operational Risks (since February 2020), where he also holds the position of Health, Safety, Environment and Risk Acting Executive Officer (since March 2019); he also previously held (in the last 5 years) the following positions: **(i)** Base Metals and Safety Manager at Vale (from December 2018 to February 2019); **(ii)** Safety and Health Executive Officer at Barrick Gold Corp (from September 2011 to February 2015); **(ii)** Health, Safety and Environment Executive Officer at Canadian Solar Inc (from January 2016 to February 2017); and **(iii)** Health and Safety Officer at Teck Resources Ltd. (from March 2017 to November 2018). He holds a degree in technical course of Paramedic Program from Pre-Hospital Emergency Medical Care Centennial College in December 1991, being certified by the Canadian Registered Safety Professional Board of the Canadian Registered Safety Professionals in November 2006, and completed MBA at the University of Fredericton, Sandermon School of Business in November 2017. Mr. Michael Gerald Duffy has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Michael Gerald Duffy has declared that he is not a politically exposed person as defined in the applicable regulations.

Luke Thomas Mahony

PE0394847

Mr. Luke Thomas Mahony is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risks (since February 2020), where he also holds the position of Head of Technical Corporate Services at Vale Canada (since March 2019); he also held the following positions in the last 5 years: **(i)** Resources Development, Long Term Planning and Continuous Improvement General Manager - Coal at Vale Mozambique (from July 2014 to July 2017); **(ii)** Planning, Programming, Maintenance Engineering and Projects - Coal at Vale Moçambique (from July 2017 to March 2018); and **(iii)** Planning and Coal Projects Executive Manager at Vale Moçambique (from January 2018 to March 2019). He holds a degree in Mining Engineering from the University of New South Wales in 2002, and completed a Master's in Finance at the University of New South Wales (2004), a Master's degree in Mining Engineering from the University of New South Wales in 2006, and a Master's degree in Mining Geomechanical Engineering from the University of New South Wales (2011). Mr. Luke Thomas Mahony has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Luke Thomas Mahony has declared that he is not a politically exposed person as defined in the applicable regulations.

Carlos Eduardo Woelffel Martins

078.150.987-46

Mr. Carlos Eduardo Woelffel Martins is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since February 2020), where he also holds the position of Planning and Financial Analysis Manager (since February 2019); in the last 5 years he held the position of: **(i)** Executive Officer at Eastern Star Resources (since June 2019). He holds a degree in Accounting Sciences from the Federal University of Espírito Santo in November 2001, and completed a MBA in Controllershship at University of São Paulo in November 2003 and an MBA in Business Management at Dom Cabral Foundation in November 2011. Mr. Carlos Eduardo Woelffel Martins has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Carlos Eduardo Woelffel Martins has declared that he is not a politically exposed person as defined in the applicable regulations.

Cláudio Depes Tallon Netto

035.870.857-57

Mr. Cláudio Depes Tallon Netto is a non-independent alternate member of Vale's Business Risks Executive Committee - Compliance Risks (since February 2020), and also holds the position of Maritime Contracts and Insurance Legal Manager (since 2008). He holds a degree in Law from the Federal University of Espírito Santo in August 1996, having completed postgraduate course in Maritime Transport and Law at Vitória Law School / Interaction in December 1998. Mr. Cláudio Depes Tallon Netto has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Cláudio Depes Tallon Netto declared to be a politically exposed person, for his brother, Dilton Depes Tallon Netto is a public prosecutor in Vitória/ES, and his sister, Beatriz Depes Tallon Netto is an auditor at the Internal Revenue Service.

Karin Nunes Kern Rocha

086.709.477-06

Mrs. Karin Nunes Kern Rocha is a non-independent alternate member of Vale's Business Risks Executive Committee - Compliance Risks (since February 2020), where she also holds the position of Sanctions, Antitrust and Strategic Projects Manager (since May 2019); in the last 5 years she held the positions of Finance Operations Legal Specialist Technician at Vale (from May 2014 to May 2019). She holds a degree in Law from the Federal University of Rio de Janeiro in March 2003. Mrs. Karin Nunes Kern Rocha has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Karin Nunes Kern Rocha has declared that she is not a politically exposed person as defined in the applicable regulations

Mariana Correia Pereira

026.667.926-92

Mrs. Mariana Correia Pereira is a non-independent alternate member of Vale's Business Risks Executive Committee - Compliance Risks (since February 2020), where she also holds the position of Tax Risks and Guidance Manager (since June 2018); in the last 5 years she held the following position: **(i)** Lawyer and Legal Manager at Vale (from August 2004 to April 2016). Her professional experience in the last 5 years includes: **(i)** Tax Manager at Arcelor Mittal Brasil (from April 2016 to June 2018). She holds a degree in Law from Federal University of Minas Gerais in July 2000, and with Master's degree in Tax Law at Federal University of Minas Gerais in March 2005. Mrs. Mariana Correia Pereira has declared, for all legal purposes, that in the last 5 years she has not been convicted of any criminal offense, that she has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified her to practice any professional or commercial activity. Mrs. Mariana Correia Pereira stated that she is a politically exposed person, for her ex-husband Fabiano Abreu Pfeilsticker is a Labor Judge at the Minas Gerais Regional Labor Court.

Vagner Silva de Loyola Reis

992.523.177-91

Mr. Vagner Silva de Loyola Reis is not an independent member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since April 2020), where he also holds the position of Ferrous Products Value Chain Executive Officer (since August 2017). His experience in the last 5 years include: **(i)** Member of the Board of Directors at Samarco Mineração S.A. (since July 2019); **(ii)** Internal Planning Executive Manager at Vale (from May 2015 to August 2017); and **(iii)** Ferrous Products Planning and Production Officer at Vale (from June 2013 to May 2015). He holds a degree in Industrial Chemistry from PUC/RJ (December 1990), and completed a specialization course in Business Management at Dom Cabral Foundation in October 1992. Mr. Vagner Silva de Loyola Reis has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Vagner Silva de Loyola Reis has declared that he is not a politically exposed person as defined in the applicable regulations.

Luiz Fernando Landeiro Junior

075.784.817-62

Mr. Luiz Fernando Landeiro Junior is not an independent member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since April 2020), and of Vale's Business Risks Executive Committee - Geotechnical Risks (since August 2019), where he has already held the position of member of the Business Risks Executive Committee - Operational Risks (between August 2019 and June 2020). His main professional experiences in the last 5 years includes: Vale's Planning and Engineering Executive Officer. Mr. Luiz Landeiro holds a degree in Civil Engineering from Federal University of Rio de Janeiro in January 2001, having completed postgraduate studies in transport logistics at Federal

University of Espírito Santo in November 2003 and MBA in Entrepreneurial Management at Dom Cabral Foundation in May 2006. Mr. Luiz Fernando Landeiro Junior has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Luiz Fernando Landeiro Junior has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcos Guilherme Ruffeil Moreira

599.088.312-91

Mr. Marcos Guilherme Ruffeil Moreira is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since April 2020), where he also holds the position of Production Planning and Logistics Capacity Manager (since February 2020). His experience in the last 5 years include: **(i)** Strategic Planning Manager - Ferrous Products at Vale S.A. (from January 2018 to January 2019); and **(ii)** Strategic Planning and Coal Performance Manager at Vale Mozambique (from January 2013 to December 2017). He holds a degree in Mechanical Engineering from Federal University of Pará in December 1999 and completed a Master's degree in Production Engineering at PUC-RJ in March 2005. Mr. Marcos Guilherme Ruffeil Moreira has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Marcos Guilherme Ruffeil Moreira has declared that he is not a politically exposed person as defined in the applicable regulations.

Bruno Araujo Perrota

071.317.947-32

Mr. Bruno Araujo Perrota is a non-independent alternate member of Vale's Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since April 2020), where he also holds the position of Integrated Business Planning - Base Metals (IBP) Executive Manager (since June 2019). His experience in the last 5 years include: **(i)** Global Integrated Planning Programme Senior Manager at Rio Tinto in Singapore (from January 2017 to December 2018); **(ii)** Global Integrated Planning - Projects Senior Manager at Anglo American in Johannesburg (in March 2017); and **(iii)** Global Logistics Projects Senior Manager at Anglo American in London (from March 2013 to March 2016). He holds a degree in Production Engineering from Federal University of Rio de Janeiro in December 1998, having a Masters of Science degree in Transportation Engineering at COPPE, Federal University of Rio de Janeiro in June 2003. Mr. Bruno Araujo Perrota has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Bruno Araujo Perrota has declared that he is not a politically exposed person as defined in the applicable regulations.

Roberto Mauro Di Biase Sampaio

007.478.727-67

Mr. Roberto Mauro Di Biase Sampaio is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risks (since April 2020) and of Vale's Business Risks Executive Committee - Operational Risks (since May 2020), where he holds the position of Health, Safety, Environment and Risks - Ferrous Products Executive Manager (since April 2020); he has already held the following positions: **(i)** Porto Norte Operations Executive Manager (from January 2015 to March 2020); **(ii)** Logistics Engineering Executive Officer at Logística Vale (from September 2012 to January 2015); **(iii)** Port Operations South (TIG, CBPS and ValeSul) General Manager (from January 2011 and September 2012); **(iv)** Port of Tubarão - Operations General Manager (from October 2008 to January 2011); **(v)** Port of Tubarão - Operations Control Center Manager (from June 2007 and October 2008); and **(vi)** Pelletizing Engineer (from October 2004 to June 2007). He holds a degree in Industrial Metallurgical Engineering from Universidade Federal Fluminense - UFF (January 1995), and completed postgraduate studies in Business Administration at Getúlio Vargas Foundation - FGV in December 2006. Mr. Roberto Mauro Di Biase Sampaio has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Roberto Mauro Di Biase Sampaio has declared that he is not a politically exposed person as defined in the applicable regulations.

Ricardo Batista Mendes

026.901.886.78

Mr. Ricardo Batista Mendes is a non-independent alternate member of Vale's Business Risks Executive Committee - Geotechnical Risk (since April 2020), where he also holds the position of Energy Executive Manager (since May 2010). His main professional experience in the last 5 years include: **(i)** CEO at Vale Energia S.A. (since May 2010); **(ii)** Vice

President of the Board of Directors of ABRACE - Brazilian Association of Large Power Consumers (since February 2020); **(iii)** Council member at Aliança Geração S.A., a company in the power generation sector (since February 2015); **(iv)** Council member at Norte Energia S.A., a company in the electric power generation (since July 2011); and **(v)** Council member at ABIAPÉ - Brazilian Association for the Energy Investors (since June 2010). He holds a degree in Electrical Engineering from Federal University of Minas Gerais in April 1998 and completed a specialization course in Business Management at Dom Cabral Foundation - FDC in February 2005. Mr. Ricardo Batista Mendes has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Ricardo Batista Mendes has declared that he is not a politically exposed person as defined in the applicable regulations.

Glauco Vinícius de Oliveira Gonçalves

992.440.636-20

Mr. Glauco Vinícius de Oliveira Gonçalves is a non-independent alternate member of Vale's Business Risks Executive Committee – Geotechnical (since April 2020), where he also holds the position of Strategy, Participation and New Business Manager (since August 2019), and has held the following positions: **(i)** Engineering, Operation, Socio-environmental and H&S General Manager (from February 2012 to December 2014); **(ii)** Management Manager at Energy Consortia (from May 2010 to January 2012); and **(iii)** Financial Economic Analyst (from August 2003 to January 2007). His main professional experiences in the last 5 years include: **(i)** Full Member of the Board of Directors (since August 2019), **(ii)** Operation Executive Officer (from August 2014 to July 2019), **(iii)** Full Member and Coordinator of the Financial Committee (since July 2019), **(iv)** Full Member of the Strategic Committee (since July 2019), **(v)** Alternate Member of the Management and Corporate Development Committee (since July 2019), **(vi)** Full Member of the Audit Committee (since July 2019) and **(vii)** Alternate Member of the Electric Energy Trading Committee (since July 2019) of Aliança Geração de Energia S.A., a company in which Vale holds interest; **(viii)** Full Member of the Board of Directors (since August 2019) and **(ix)** Executive Officer without specific designation (since July 2019) of Aliança Norte Energia Participações S.A., a company in which Vale holds interest; **(x)** Executive Officer without specific designation (from August 2016 to August 2019) of Mantiqueira PCHS Participações S.A., a wind energy company, in which Vale has an indirect interest; **(xi)** Executive Officer without specific designation (from January 2016 to January 2019) of Aliança Eólica Santo Inácio Participações S.A., in which Vale has an indirect interest; **(xii)** Full Member of the Deliberative Council (from May 2012 to February 2015) of the Consortium of the Aimorés Hydroelectric Power Plant- Eliezer Batista Hydroelectric Plant, in which Vale holds interest; **(xiii)** Alternate Member of the Deliberative Council (since August 2019), **(xiv)** Full Member of the Deliberative Council (between April 2012 and July 2019) and **(xv)** Implementation Executive Officer (from June 2014 to June 2017) of the Candonga Consortium, in which Vale holds interest; **(xvi)** Full Member of the Deliberative Council (between June 2012 and July 2019) of the Capim Branco Energia Consortium, in which Vale holds an indirect interest; **(xvii)** Full Member of the Deliberative Council (from June 2012 to February 2015 and since August 2019) of the Estreito Energia Consortium – CESTE, in which Vale holds interest; **(xviii)** Full Member of the Deliberative Council (from May 2012 to and August 2019) of the Igarapava Hydroelectric Power Plant Consortium, in which Vale holds indirect interest; **(xix)** Full Member of the Plenary Council of the Management Committee (from December 2012 to December 2014 and since August 2019) of the Machadinho Hydroelectric Consortium, in which the Company holds interest; **(xx)** Alternate Member of the Deliberative Council (since August 2019) of the GESAI Consortium - Santa Isabel Generation, in which Vale holds interest; and **(xxi)** Full Member of the Deliberative Council (from May 2012 to July 2019) of the Porto Estrela Hydroelectric Exploitation Consortium, in which Vale holds interest. For more information, see item 12.12 of this Reference Form.

José Luiz de Oliveira Martins

152.690.944-87

Mr. José Luiz de Oliveira Martins is a non-independent member of Vale's Business Risks Executive Committee - Operational Risk (since January 2020), where he also holds the position of Coal Operation Executive Manager (since February 2020). His main professional experiences in the last 5 years include: **(i)** Operation Executive Officer (between January 2015 and March 2018) of Mineração Rio do Norte – MRN, mining sector company, controlled by Vale; and **(ii)** Advisor at OZ Minerals (between June and December 2019), a mining sector company. He graduated in Mining Engineering from the Federal University of Pernambuco in February 1981. Mr. José Luiz de Oliveira Martins has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Luiz de Oliveira Martins has declared that he is not a politically exposed person as defined in the applicable regulations.

Andressa Machado Duran Linhares

037.689.187-42

Mrs. Andressa Machado Duran Linhares is non-independent alternate secretary of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since June 2020) and Business Risks Executive Committee – Compliance Risk (since June 2020) of Vale, where she also holds the position of Integrated Business Risk Management Manager (since June 2020), in the last 5 years she also held the following positions: **(i)** Corporate Operational Security Manager (between December 2018 and June 2020); and **(ii)** Internal Audit Manager – Operational, Finance, Tax and Compliance (between September 2014 and November 2018). She graduated in Law from the Federal University of Rio de Janeiro - UFRJ in July 1997 and completed her post-graduation in Corporate Finance at IBMEC in July 2007. Mrs. Andressa Machado Duran Linhares has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Andressa Machado Duran Linhares has declared that he is not a politically exposed person as defined in the applicable regulations.

Marco Aurelio Brito Braga

952.400.126-87

Mr. Marco Aurelio Brito Braga is non-independent member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since June 2020) of Vale, where he also holds the position of Procurement and Inbound Logistics Executive Officer (since June 2020), having already held the following positions in the last 5 years: **(i)** Head of Projects Implement Manager - Vitória/ES, Africa and Asia (between September 2019 and May 2020); **(ii)** *Head of Procurement and Inbound Logistics – North Atlantic* (between January 2017 and August 2019); e **(iii)** Global Procurement Executive Manager for Projects (between July 2012 and December 2016). He holds a degree in Mechanical Engineering from the Federal University of Minas Gerais - UFMG in July 2000. He completed Business MBA at Dom Cabral Foundation in December 2012, specialization in Finance at Dom Cabral Foundation in December 2002, specialization in *Strategic Supply Chain Management* at *University of British Columbia* in October 2004 and specialization in *Lean Manufacturing at Michigan University – Michigan – EUA* in May 2014. Mr. Marco Aurelio Brito Braga has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marco Aurelio Brito Braga has declared that he is not a politically exposed person as defined in the applicable regulations.

Patrick James

Passport: USA 530504454

Mr. Patrick James is non-independent member of the Business Risk Executive Committee - Operational Risk (since June 2020) of Vale, where he also holds the position of Head of Health, Safety, Environment and Risk (*Head of HSE & Risk*) of *Vale Base Metals* (since June 2020). His main professional experiences in the last 5 years include: **(i)** Member of the Board of Executive Officers (*BOD*) of *International Academy for Mine, Safety & Health* (since September 2019); **(ii)** Member of *Society of Mining, Metallurgy and Exploration* (since September 2019); **(iii)** Vice President of Health, Safety, Environment and Human Resources (*VP, HR/HSE*) (between April 2019 and June 2020) of *Cementation Americas*, a mining company; **(iv)** Vice President of Health, Safety and Environment (*VP, HSE*) at *Lehigh Hanson (Heidelberg Cement)* (between January 2017 and April 2019), a building materials company; and **(v)** Vice President of Health, Safety, Environment and Communities, copper and diamond product group (*VP, HSE & Communities, for the Copper & Diamonds Product Group*) at Rio Tinto (between July 2005 and January 2017), metal and mining company. Graduated in Social Sciences, emphasis in psychology (*BS Social Science w/emphasis in Psychology*) at University of Wyoming in May 1997, completed *MA Education w/emphasis in Secondary Education* at University of Wyoming in May 2001, and got the certificates of *Certified Safety Professional* (CSP) and *Certified Mine Safety Professional* (CMSP), in March 2004 and August 1998, respectively. Mr. Patrick James has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Patrick James has declared that he is not a politically exposed person as defined in the applicable regulations.

Murilo Muller

877.208.929-68

Mr. Murilo Muller is a non-independent of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks (since August 2020) of Vale, where he also holds the position of: **(i)** Controllershship Executive Officer (since August 2017) of Vale, having already held the following positions: **(ii)** Controllershship Project Manager (between August 2013 and April 2015), and **(iii)** Controllershship Executive Manager (between April 2015 and August 2017). His main professional experiences in the last 5 years includes: member of the Board of Directors at CSI Steel, steel processing company (since July 2020). Graduated in Accounting Sciences from the Federal University of Paraná in June 2001. Mr. Mr. Murilo Muller has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian

Securities Commission, or any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Murilo Muller stated that he is not a politically exposed person as set out in the applicable regulations.

Eliane Velo Dominguez

034.232.097-12

Mrs. Eliane Velo Dominguez is a non-independent alternate member of the Business Risks Executive Committee - Strategic, Financial and Cyber Risks of Vale, where he also holds the position of: **(i)** Global Standards and Consolidation Manager (since October 2018), having already held the following positions **(ii)** Consolidation, Results and Consolidated Reporting Manager (between April 2016 and September 2018); e **(iii)** Standardization and Support Accounting Manager (between April 2014 and March 2016). Her main professional experiences in the last 5 years include: Member of the Fiscal Council of Renova Foundation(since April 2020), non-profit organization responsible for managing and performing damage repair programs caused by the Fundão tailings dam breach, owned by Samarco S.A., in Mariana (MG), of which Vale is subsidiary funding entity Graduated in Accounting Sciences from State University of Rio de Janeiro, in June 1997, completed postgraduate degree in Finance and Corporate Management from Candido Mendes University in November 2000 and completed MBA in Controllershship and Finance in Universidade Federal Fluminense in June 2005. Mrs. Eliane Velo Dominguez has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Eliane Velo Dominguez has declared that he is not a politically exposed person as defined in the applicable regulations.

Vitor Monteiro Cabral

021.139.627-30

Mr. Vitor Monteiro Cabralis a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation of Vale (since December 2020), where he also holds the position of Environment Technology Manager (since May 2015), and has already held the position of **(i)** High Level Trainee (between June 2001 and May 2002) **(ii)** Junior Forest Engineer (between May 2002 and January 2004); **(iii)** Senior Engineer (between February 2004 and February 2007); **(iv)** Master Forest/Sustainability Analyst (between March 2007 and September 2011) and **(v)** Environmental Planning / Recovery Manager (between September 2011 and May 2015). His main professional experience in the last 5 years also include: **(i)** Alternate Member of the Board of Trustees (since June 2019) and **(ii)** Full Member of Technical Committee of Social and Environmental Programs (since August of 2018) of Renova Foundation, non-profit organization responsible for managing and performing damage repair programs caused by the Fundão tailings dam breach, organização sem fins lucrativos responsável por gerir e executar programas para reparação dos danos causados pelo rompimento da barragem de Fundão, owned by Samarco S.A., in Mariana (MG), of which Vale is subsidiary funding entity and **(iii)** Alternate Member of the Management Council of Vale Association for Sustainable Development (since July 2015), non-profit association aiming to connect institutions for sustainable development). Graduated in Agronomy from Federal University of Viçosa in October 2000 and completed MBA in Market and Corporate Finance at IBMEC/BH, in September 2018. Mr. Vitor Monteiro Cabral has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Vitor Monteiro Cabral has declared that he is not a politically exposed person as defined in the applicable regulations.

Júlio César Gama de Almeida

008.523.287-00

Mr. Júlio César Gama de Almeida is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where also holds the position of Global Communication Executive Officer (since November 2017), having already held the following positions: **(i)** responsible for developing and implementing the Communication strategy for protecting and incrementing the company reputation and **(ii)** runs the areas of External Communication, Internal Communication, Digital communication, Events, Advertising and Marketing and Visitations. His main professional experience in the last 5 years include: **(i)** Communication Executive Officer in Telefonica Brasil – VIVO (between July 2016 and November 2017); **(ii)** Head of Communication in HSBC Brasil (between December 2013 and July 2016); **(iii)** Executive Officer of Corporate and Financial Practices in Burson-Marteller (between August 2012 and December 2013). Graduated in Communication from Faculdade da Cidade do Rio de Janeiro in December 1989; completed MBA in International Business at Florida International University, Miami, FL, in April 2007. Mr. Júlio César Gama de Almeida has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any

conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Júlio César Gama de Almeida has declared that he is not a politically exposed person as defined in the applicable regulations.

Renata Silveira Bellozi

082.937.077-39

Mrs. Renata Silveira Bellozi is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of General Manager (since May 2018), having already held the following positions: **(i)** Press Relations Manager (between 2011 and 2018). Graduated in Journalism at PUC / Minas Gerais in December 2000. Completed postgraduate degree in Sustainability at Dom Cabral Foundation in 2011 and specialization in Communication and Business Management at PUC/Minas Gerais in December 2004. Mrs. Renata Silveira Bellozi has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Renata Silveira Bellozi has declared that he is not a politically exposed person as defined in the applicable regulations.

Luiz Ricardo de Medeiros Santiago

780.016.171-49

Mr. Luiz Ricardo de Medeiros Santiago is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of executive Officer of Institutional Relations (since December 2020), having already held the following positions: **(i)** Government Relations Executive Officer (between August 2019 and August 2020) and **(ii)** Executive Manager of Institutional Relations (between February 2018 and July 2019). His main professional experience in the last 5 years also include: **(i)** Executive Officer of Government Relations for South America at General Motors (automotive) (between November 2016 and January 2018); **(ii)** Head of Government Relations and International Advocacy at Raízen (energy and fuel) (between January 2012 and October 2016); **(iii)** Member of the Council at Brazilian Mining Institute (IBRAM) (since March 2018); **(iv)** Member of the Council at Federation of Industries of Minas Gerais (FIEMG) (since March 2019); e **(v)** Member of the Council at Federation of Industries of Espírito Santo (FINDES) (since August de 2020). Graduated in Computer Science at Miami-Dade College in December 2017; Systems Analysis at Sta. Teresa College in December 2008; Theology at the School of Integrated Theology in December 2016 and completed MBA in State, Government and Public Policies in September 2013. Mr. Luiz Ricardo de Medeiros Santiago has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Luiz Ricardo de Medeiros Santiago has declared that he is not a politically exposed person as defined in the applicable regulations.

Elisa Romano Dezolt

619.915.621-87

Mrs. Elisa Romano Dezolt is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where she also holds the position of Federal Government and Institutional Relations Manager (since June 2020). Her mans professional experience in the last 5 years also include: **(i)** Executive Officer of Territorial Environmental Management at Ministry of the Environment (between February 2019 and January 2020); **(ii)** Policy and Industry Specialist at National Confederation of Industry (between May 2006 and February 2019). Graduated in Biological Science at University of Brasília in March 1999; completed postgraduate in Cross-Sector Partnerships at University of Cambridge, UK, in June 2005 and completed master degree (credits only) in Economic Management of the Environment at University of Brasília in January 2001. Mrs. Elisa Romano Dezolt has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Elisa Romano Dezolt declared that she is a politically exposed person as defined in the applicable regulations, by reason of her office as Executive Officer of Territorial Environmental Management at Ministry of the Environment (between February 2019 and January 2020) and her father's office as Executive Officer of Geoscientific Infrastructure at Geological Survey of Brazil (CPRM) (current).

Camilla Lott Ferreira

043.987.797/01

Mrs. Camilla Lott Ferreira is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where she also holds the position of Executive Manager of Social Management (since August 2018), having already held the following positions: **(i)** Lead Negotiation Specialist regarding HSEC - Health, Safety, Environment and Community (between October 2013 and October 2017); **(ii)** General Manager of Sustainability of Capital Projects (between February 2013 and October 2013); **(iii)** General Manager of Project Management (PMO) and e Chief Executive Officer of Vale Foundation in Mozambique (between February 2011 and January 2013); **(iv)** Sustainability Manager of Vale Foundation in Mozambique (between January 2010 and January 2011); **(v)** Environment Manager of Vale in Mozambique (between January 2006 and December 2009); and **(vi)** Engineer at Department of Environmental and Territorial Management (between June 2001 and December 2005). Her main professional experiences in the last 5 years also include: **(i)** member of the Board of Directors at Amazônia S.A. (since May 2018); and **(ii)** Member of the Board of Trustees at Renova Foundation, non-profit organization responsible for managing and performing damage repair programs caused by the Fundão tailings dam breach, owned by Samarco S.A., in Mariana (MG), of which Vale is subsidiary funding entity (since July 2019). She graduated in Agronomic Engineering at UFV in January 2000; completed postgraduate degree in Business Management at Dom Cabral Foundation, in December 2005; and completed MBA at Federal University of Rio de Janeiro in December 2004. Mrs. Camilla Lott Ferreira has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Camilla Lott Ferreira has declared that she is not a politically exposed person as defined in the applicable regulations.

Liesel Mack Filgueiras

072.149.377-78

Mrs. Liesel Mack Filgueiras is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where she also holds the position of Human Rights Manager (since March 2019). She graduated in Psychology at Pontifical Catholic University of Rio de Janeiro – PUC-Rio in December 1997 and completed his Master's Degree in Business Administration at Pontifical Catholic University of Rio de Janeiro PUC-Rio in December 2001. Mrs. Liesel Mack Filgueiras has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Liesel Mack Filgueiras has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcelo Leite Barros

015.314.747-48

Mr. Marcelo Leite Barros is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Director of Operations - South and Midwest Corridor (since April 2019), having already held the following positions: **(i)** Intern (in 1990); **(ii)** Financial Analyst (in 1992); **(iii)** Planning Manager - Northern System (in 2000); **(iv)** General Manager of FCA Operations (in 2002); **(v)** Operation Executive Officer - EFVM (in 2006); **(vi)** Operation Executive Officer - North Pole (in 2010); and **(vii)** Logistic Operation Executive Officer (in 2011). He graduated in Economic Sciences at Federal University of Espírito Santo in December 1991, completed MBA in Finance at IBMEC in 1995 and completed postgraduate degree in Management at FGV in 2000. Mr. Marcelo Leite Barros has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcelo Leite Barros has declared that he is not a politically exposed person as defined in the applicable regulations.

Dairson Alexandre Pintor

156.254.188-96

Mr. Dairson Alexandre Pintor is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Executive Manager of HSE (Health & Safety and Environment), Risks and Emergencies (since September 2019). His main professional experience in the last 5 years also include: **(i)** General Manager of Health, Safety and Environment at Brasil Terminal Portuário (between February 2018 and August 2019); e **(ii)** Executive Officer of HSEQ - Health, Safety, Environment and Quality Latam at Syngenta Proteção de Cultivos Ltda. (between April 2012 and January 2018), specialized in seeds and chemicals for agribusiness. He graduated in Chemical Engineer at Federal University of São Carlos in December 1993, with specialization in Labor Safety Engineering at UNICAMP in June 1999. Mr. Dairson Alexandre Pintor has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has

suspended or disqualified him for the practice of any professional or commercial activity. Mr. Dairson Alexandre Pintor has declared that he is a politically exposed person as set out in the applicable regulations, due to his brother, sister and cousin held positions at Municipality of Pedreira/SP.

Luiz Gustavo Reche

011.032.226-60

Mr. Luiz Gustavo Reche is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Operations Executive Officer- South Atlantic (since December 2018), having already held the positions of: **(i)** Operations Manager - Corumba (between February 2006 and February 2009); **(ii)** General Manager - Itabiritos (between October 2011 and April 2017); and **(iii)** Executive Manager - Vargem Grande (between April 2017 and September 2018). He graduated in Mining Engineering at Federal University of Ouro Preto in December 2000 and Chemical Engineering at UNIFRAM in December 2003 and completed MBA in Business Management at FGV in December 2008. Mr. Luiz Gustavo Reche has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Luiz Gustavo Reche has declared that he is not a politically exposed person as defined in the applicable regulations.

Antonio Daher Padovezi

438.231.906-44

Mr. Antonio Daher Padovezi is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Executive Officer - Northern Corridor (since May 2017), having already held the following positions: **(i)** Division Manager (between January and March of 1998); **(ii)** Senior Engineer (between April 1998 and July 1999); **(iii)** Operational Process Manager (between July 1999 and June 2001); **(iv)** Process Manager (between July 2001 and April 2005); **(v)** General Manager of Mining Planning and Engineering (between May 2005 and January 2006); **(vi)** Mining General Manager (between February 2006 and August 2008); **(vii)** Executive Officer of Ferrous Southern Operational Department (between September 2008 and May 2009); **(viii)** Executive Officer of Ferrous Northern Operational Department (between June 2009 and June 2012); **(ix)** Executive Officer of Ferrous Southeast Operational Department (between July 2012 and June 2013); **(x)** Executive Officer of Ferrous Southeast Operations (between June 2013 and April 2017); e **(xi)** Executive Officer of Ferrous Northern Operations (between May 2017 and August 2017). His main professional experience in the last 5 years also include, being all of them connected to Vale: **(i)** Director at Kserge Serviços Gerais Ltda. (between December 2011 and December 2014); **(ii)** Director at MSE- Serviços de Operação Manutenção e Montagens Ltda. (between December 2011 and July 2015); **(iii)** Chief Executive Officer and Vice President at Sociedade de Mineração Constelação de Apolo S.A. (between July 2012 and July 2013 and between June 2013 and June 2015, respectively); **(iv)** Chief Executive Officer of the Board of Directors of Vale Minas Gerais Memorial Association, third sector entity (between March 2014 and September 2017); **(v)** Member of the Board of Trustees of Vale Foundation, third sector entity (since January 2013). He holds a degree in Mining Engineer from Federal University of Ouro Preto in 1985 and completed MBA in Business Management in 2014. Mr. Antonio Daher Padovezi has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Antonio Daher Padovezi has declared that he is not a politically exposed person as defined in the applicable regulations.

Valéria Cristina Franco

618.238.643-68

Mrs. Valéria Cristina Franco is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where she also holds the position of Executive Manager of SSMA (Health, Safety and Environment) and Risks of Northern Corridor (since January 2020), having already held the following positions: **(i)** Coordinator - Method of Ferrous Management (between May 2009 and October 2010); **(ii)** Manager of Contract Performance Management (between November 2010 and March 2012); **(iii)** Current Investment Portfolio Management Coordinator (between October 2012 and October 2013); **(iv)** Ferrous Consolidated Management Manager (between November 2013 and May 2015) e **(v)** Manager of Management Occupational Health and Safety Improvement of Ferrous Processes (between April 2015 and December 2019). She graduated in Business Administration at State University of Maranhão in October 2003 and completed postgraduate degree in Finance at IBMEC in September 2006. Mrs. Valéria Cristina Franco has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified

him for the practice of any professional or commercial activity. Mrs. Valéria Cristina Franco has declared that he is not a politically exposed person as defined in the applicable regulations.

Sérgio Inácio Cassamo Chitará

Passport: 110100306591C ID

Mr. Sérgio Inácio Cassamo Chitará is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Executive Manager (Country Manager) at Vale Mozambique (since September 2020), having already held the following position of General Manager of Institutional Relations in Mozambique and Malawi (between November 2009 and September 2016). His main professional experience in the last 5 years also include the position of Project Executive Officer at USAID Program (United States Agency for International Development) – SPEED (Supporting the Policy Environment for Economic Development). He graduated in Agronomy and Forest Engineering at Eduardo Mondlane University in 1980; completed MBA at Bradford University UK- Management Center in 1994 and completed MSc Forest Industries Technologies at University College of North Wales on 1993/94. Mr. Sérgio Inácio Cassamo Chitará has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Sérgio Inácio Cassamo Chitará has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcelo Tertuliano Melo

996.501.346-20

Mr. Marcelo Tertuliano Melo is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Executive Manager of Management, Performance and Strategy - CFO Coal Mozambique (since September 2017), having already held the following positions: **(i)** General Manager of Economic Management - Coal (between March 2014 and September 2016); **(ii)** General Manager of Corporate Finance (between October 2010 and February 2014); **(iii)** General Manager of Participation Management (between May 2010 and October 2010); **(iv)** Manager of Participation Management (between June 2007 and April 2010); **(v)** Coordinator of Participation Management (between October 2006 and May 2007) and **(vi)** Chairmanship's Assistant at MBR- Vale's subsidiary (between October 2005 and September 2006). His main professional experiences in the last 5 years also include: CFO – Nacala Corridor - Vale's Joint Venture Company between October 2016 and August 2017). He graduated in Business Administration at FUMEC in December 1998; completed postgraduate degree in Business Administration, Finance specialization, at FGV-SP in December 2001 and completed Master of Science degree at IBMEC-RJ in march 2014. Mr. Marcelo Tertuliano Melo has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Yoshitomo Nishimitsu has declared that he is not a politically exposed person as defined in the applicable regulations.

Fernando Marino

031.256.998-00

Mr. Fernando Marino is a non-independent member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Executive Manager of Planning and Geotechnics (since June 2019), having already held the following positions: **(i)** Mine Geologist (between July 1986 and July 1994); **(ii)** Mine Planning Coordinator (between August 1994 and July 2000); **(iii)** Mining Department Head (between August 2000 and May 2006); **(iv)** Mine Operation Manager (between June 2006 and October 2008); **(v)** Operations General Manager - Onça Puma (between November 2008 and February 2012); **(vi)** Operations Executive Officer - Onça Puma (between March 2012 and April 2015); **(vii)** Operations Executive Manager - Onça Puma (between May 2015 and September 2016); and **(viii)** Operations Executive Manager - Copper - Northern Hub (between October 2016 and May 2019). He graduated in Geological Engineering at federal University of Ouro Preto in July 1986; completed postgraduate degree in Business Management at Dom Cabral Foundation in February 2003; completed specialization in Operational Geostatistics at Federal university of Ouro Preto in August 1990; completed specialization in Quality and Productivity Engineering at Mining Society of Minas Gerais - SME in December 1993; completed specialization at *Vale Transformational Leadership Program* no MIT-Sloan – Boston/USA in November 2009 and completed specialization by means of *Vale Mastering Leadership Program* at Lausanne - Switzerland in August 2011. Mr. Fernando Marino has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Fernando Marino has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcos Lewin

090.026.657-09

Mr. Marcos Lewin is a non-independent alternate member of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Health, Safety, Environment and Risk Executive Manager (since May 2020), having already held the following positions at Vale or companies linked to it: **(i)** Full Member of the Financial Committee of Vale do Rio Doce Social Security Foundation – VALIA, closed supplementary pension entity, non-profit, instituted by Vale (since June 2016); **(ii)** Deputy Chairman of the Fiscal Council of the Health Care Plan of Vale's Retired Employees - PASA (since November 2018); **(iii)** Alternate Member of the Risk Committee at Mineração S.A., of which Vale da qual a Vale holds shared control (since November 2018); **(iv)** Risk Manager of Vale (between April 2018 and May 2020); **(v)** Manager of Base Metals Performance Budget (between June 2017 and April 2018); **(vi)** Manager of Basic Metals Performance Budget (between May 2017 and June 2017); **(vii)** Manager of Consolidated Process Performance Budget (between February 2016 and May 2017) e **(ix)** Manager of Capital Investment Budget (between January 2015 and February 2016). His main professional experience in the last 5 years also include: **(i)** Visiting Teacher at Coppead UFRJ (since September 2014) e **(ii)** Coordinator Responsible for the Voluntary Project "Todos Pelo Rio Doce" (since December 2016). He graduated in Business Administration at Federal University of Rio de Janeiro in July 2004; Executive MBA at COPPEAD UFRJ in December 2011 and Finance at IBMEC in June 2006; completed specialization in Project Management at Vale in October 2010. Mr. Marcos Lewin has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcos Lewin has declared that he is not a politically exposed person as defined in the applicable regulations.

Rodrigo Lauria de Castro Loureiro

080.859.807-46

Mr. Rodrigo Lauria de Castro Loureiro is non-independent Secretary of the Business Risks Executive Committee - Sustainability, Institutional Relations and Reputation (since December 2020) of Vale, where he also holds the position of Economic and Performance Management Manager - Sustainability (since February 2018), having already held the following positions at Vale or companies linked to it: **(i)** Documentation and Costs Technician II at Docenave – Navegação Vale do Rio Doce (between September 2003 and September 2005); **(ii)** Budget and Finance Analyst II at Docenave – Navegação Vale do Rio Doce (between September 2005 and March 2006); **(iii)** Financial and Financial Analyst - Master (between March 2006 and September 2008); **(iv)** Costs and Results Management Manager (between September 2008 and November 2009); **(v)** Logistic Performance Manager DIPD (between November 2009 and November 2011); **(vi)** General Manager of Financial Management and Corporate Performance (between November 2011 and August 2015); and **(vii)** Planning and Management Manager - RH/S&S/SUST/ENER (between August 2015 and January 2018). His main professional experience in the last 5 years also include: **(i)** Executive Officer at Vale Soluções em Energia S.A. - VSE (P&D of projects focused on the energy area) (since July 2020); **(ii)** Alternate Member of the Fiscal Council at Vale Foundation (Third Sector) (since September 2019); **(iii)** Chairman of the Fiscal Council at Vale Institute – ICV (Third Sector) (since September 2019); **(iv)** Executive Officer at Vale Technological Institute Association – ITV (Third Sector) (since June 2019); **(v)** Full Member of the Management Council of Vale Association for Sustainable Development – Vale Foundation (Third Sector) (since July 2018); **(vi)** Chairman of the Fiscal Council at Vale Maranhão Cultural Center –ACCVM (Third Sector) (since July 2018) and **(vii)** Member of the Fiscal Council at Vale Minas Gerais Memorial Association - AMMGV (Third Sector) (since October 2020). He graduated in Business administration at Federal University of Rio de Janeiro in December 2001; completed postgraduate in Economic Engineering at State University of Rio de Janeiro in December 2004; completed MBA in Corporate Finance at Brazilian Institute of Capital Markets in December 2006 and completed specialization in *Oxford Impact Measurement Programme Sais Business School at University of Oxford* in July 2019. Mr. Rodrigo Lauria de Castro Loureiro has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Rodrigo Lauria de Castro Loureiro has declared that he is not a politically exposed person as defined in the applicable regulations.

Luiz Eduardo Frões do Amaral Osorio

026.000.007-80

Executive Officer of Institutional Relations and Communication at Vale (since March 2021) and Non-independent Coordinator of the Executive Committee for Business Risks - Sustainability, Institutional Relations and Reputation (since December 2020). He was Director of Sustainability and Institutional Relations (from July 2017 to March 2021). His main professional experiences in the last 5 years include: **(i)** Chief Legal and Institutional Relations Officer of CPFL Energia S.A. (from May 2014 to July 2017), a publicly-held company in the electric energy sector; **(ii)** Member of the Board of Directors of CPFL Energias Renováveis S.A. (from October 2014 to January 2017), a publicly-held company in the electric

energy sector; **(iii)** Vice-Chairman of the Board of Directors of Instituto CPFL (from July 2015 to July 2017), an entity that encourages culture; **(iv)** Executive Director for International Markets at Raízen (from June 2012 to March 2014), a company in the electricity sector; **(v)** Member of the Board of Directors of IBRAM (Brazilian Mining Institute); **(vi)** Member of the Advisory Board of Columbia Center on Sustainable Investment at Columbia University; **(vii)** Member of the Board of the WBCSD (World Business Council for Sustainable Development); **(viii)** Management positions in national and multinational companies such as AmBev, Diageo, Shell; **(ix)** Member of the Deliberative Council of the Brazilian Beverage Association - ABRABE; the Conar Ethics Committee and the Fiscal Council of the Health and Alcohol Information Center - CISA; **(x)** Director of the National Union of the Beer Industry - SINDICERV and of the Brazilian Association of the Industries of Soft Drinks and Non-Alcoholic Beverages - ABIR. He graduated in Law from the Pontifical Catholic University of Rio de Janeiro in December 1998 and holds a Master's Degree in Development Management from the American University in Washington, DC - School of International Service, completed in May 2003. He also has executive training in: Corporate Social Responsibility by Harvard Business School (USA); Identifying the Challenges and Building General Management Skills by Insead (France); From Strategy to Execution, Leading in a High Performance Organization by Wharton School (USA); and Leadership in Corporate Counsel by Harvard Law School (USA). Mr. Luiz Eduardo Fróes do Amaral Osorio declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by decision passed on judged, in the judicial or administrative sphere, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Luiz Eduardo Fróes do Amaral Osorio declared that he was not a politically exposed person, as defined in the applicable regulations.

Manuel Lino Silva de Sousa Oliveira

Passport no. 548309587

Member of Vale's Board of Directors (elected in May, 2021), where he was also appointed to the positions of Non-independent Coordinator of the Audit Committee and Non-independent Member of the People, Compensation and Governance Committee, elected in May 2021 and which will be filled as of 08/01/2021. His main professional experience in the last 5 years include: **(i)** Senior Independent Advisor of Antofagasta PLC, publicly-held company operating in the natural resources and mining sector (since October, 2011); **(ii)** Senior Independent Advisor of Polymetal International PLC, publicly-held company operating in the gold and silver mining sector, where he also holds the position of Head of the Project and Audit Committees and Member of the Nominating Committee (since April, 2018); and **(iii)** Non-Executive Director of Blackrock World Mining Investment Trust PLC, British company operating in the mining investment area (from February, 2020 to April, 2021). Graduated in Accounting and Business Economics from the University of Natal-Durban, South Africa, in December, 1973, where he also completed specialization in Accounting Theory in December, 1975. He also completed specialization in chartered accountant e chartered management accountant from the Institute of Chartered Accountants of South Africa. Mr. Manuel Lino Silva de Sousa Oliveira has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Manuel Lino Silva de Sousa Oliveira has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Manuel Lino Silva de Sousa Oliveira is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale. He also declared that he holds the position of independent advisor in Antofagasta plc company, where he will transition over the next few months, and he will end his term as an advisor of Blackrock World Mining Trust plc, aiming to solve situations of potential conflict of interest, reason why he will only take office in Vale in 08/01/2021.

Luciana Pires Dias

251.151.348-02

Ms. Luciana Pires Dias is an independent external expert member of Vale's Audit Committee. His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of BNDES Participações S.A. (between February 2018 and March 2020), the financial sector; **(ii)** Member of the Audit Committee of the National Bank for Economic and Social Development - BNDES (between April 2018 and November 2019), financial sector; **(iii)** Undergraduate professor at Fundação Getúlio Vargas (between August 2008 and February 2016), educational sector; **(iv)** Partner at L I Dias Advogados (since July 2016); **(v)** Professor of the master's degree at Fundação Getúlio Vargas (since August 2017); **(vi)** Member of the Audit Committee of B3 S.A. - Bolsa, Brasil, Balcão (since September 2016); **(vii)** Member of the Audit Committee of CERC Serviços de Desenvolvimento de Sistemas para Receíveis Ltda (since September 2017); and **(viii)** Member of the Technical Committee of CERC Serviços de Desenvolvimento de Sistemas para Receíveis Ltda. (between February 2017 and September 2017). In addition, Ms. Luciana Pires Dias has also held the positions of: **(ix)** Director of the Securities and Exchange Commission - CVM (between January 2011 and December 2015); **(x)** Market Development Superintendent (between December 2007 and December 2010) of the Securities and Exchange Commission - CVM. He graduated in Law from the Faculty of Law of the University of São Paulo (in 2000), completed a master's degree in Commercial Law at the Faculty of Law of the University of São Paulo (in 2005), completed the Master of the Science of Law at Stanford Law School (in 2005) and completed a doctorate in Commercial Law at the Faculty of

Law of the University of São Paulo (in 2014). Ms. Luciana Pires Dias declared, for all legal purposes, that, in the last 5 years, she has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Luciana Pires Dias declared that he was a politically exposed person, as defined in the applicable regulation, due to his position as Director of the Securities and Exchange Commission - federal agency linked to the Ministry of Economy until the end of December 2015 and member independent from the board of directors of BNDESPar, a public company linked to the Ministry of Economy between February 2018 and March 2020.

Sergio Ricardo Romani

728.647.617-34

Mr. Sergio Ricardo Romani is an independent external expert member of Vale's Audit Committee. His main professional experiences in the last 5 years include: **(i)** CEO Latin America South of Ernst & Young Auditores (between August and 1983 and April 1995 and between December 1995 and September 2019), an audit company; and **(ii)** Partner at SR Assessoria e Consultoria de Negócios Ltda. (since September 2019), consulting firm. He graduated in Accounting at Universidade Santa Úrsula (in August 1989). Mr. Sergio Ricardo Romani declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Sergio Ricardo Romani declared that he was not a politically exposed person, as defined in the applicable regulations.

Roger Allan Downey

623.291.626-34

Independent Member of Vale's Board of Directors (since December 2019), Coordinator of the Operational Excellence and Risk Committee (since May 2021) and Member of the Innovation Committee (since May 2021) at Vale, where he has also held the positions of **(i)** Member of Vale's Operational Excellence and Risk Committee (from January 2020 to April 2021), **(ii)** Executive Officer responsible for coal, fertilizers and strategy business area (from May 2012 to June 2017); and **(iii)** Strategic Marketing Manager for the Commercial Ferrous Products area (from October 2002 to August 2005). His main professional experiences in the last 5 years include: **(i)** Chief Executive Officer of PrimaSea – Fertimar Mineração e Navegação SA (between 2019 and 2020), a Brazilian company in the sectors of fertilizers and animal nutrition, where he also holds the position of **(ii)** Member of the Board of Directors (since October 2018) of PrimeSea - Fertimar; and **(iii)** Chief Executive Officer of Vale Fertilizantes S.A. (from June 2012 to June 2017), company that at the time was a member of Vale's economic group, in the fertilizer sector. Graduated in Business Administration from the Australian National Business School in February 2003 and completed a master's degree in Business Administration at the University of Western Australia in April 2003. Mr. Roger Allan Downey has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Roger Allan Downey has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Roger Allan Downey is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Eduardo de Oliveira Rodrigues Filho

442.810.487-15

Member of the Board of Directors (since May 2019 where he also holds the positions of Member of the Operational Excellence and Risk Committee (since May 2021) and Member of the Sustainability Committee (since May 2021), where he also held the position of Coordinator of the Operational Excellence and Risk Committee (from May 2019 to April 2021), and where he also held the positions of member of the Governance and Sustainability Committee (from April 2015 to October 2017), Alternate Member of the Board of Directors of Vale SA (from 2008 to 2018), Member of the Financial Committee (from April 2011 to April 2019) and Member of the Sustainability Committee (from November 2017 to 2019). His main professional experiences in the last 5 years include: **(i)** Effective Member of the Board of Directors (from May 2014 to August 2017) of Valepar S.A., private holding company that exercised control of Vale until 08/14/2017, when it was merged into Vale; and **(ii)** Managing Partner of CWH Consultoria em Gestão Empresarial (since May 2008), a consulting firm. Graduated in Civil Engineering from the Pontifical Catholic University of Rio de Janeiro (PUC-RJ) in July 1978 and holds a postgraduate degree in Transporting Planning from the University of Westminster, completed in October 2000. Mr. Eduardo de Oliveira Rodrigues Filho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Eduardo de Oliveira Rodrigues Filho declared that he is not a politically exposed person, as set out in the applicable regulations.

André Viana Madeira

076.512.086-09

Alternate Member of Vale's Board of Directors (since May 2021), where he also holds the position of non-independent member of the Operational Excellence and Risk Committee (since May 2021). His main professional experience in the last 5 years include: (i) Chief executive Officer of the Metabase Union of Itabira and Region (since October, 2018); and (ii) Member of the Deliberative Council of Pasa, private health plan (since May, 2019). Graduated in Law from the Higher Education Center of Itabira, in December, 2009, and and Theology from the São Permanent Bible School - EBPS in July, 2006. Mr. André Viana Madeira has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. André Viana Madeira has declared that he is not a politically exposed person as defined in the applicable regulations.

Marcelo Gasparino da Silva

807.383.469-34

He is an independent member of the Board of Directors (since April, 2020), Non-independent member of the Operational Excellence and Risk Committee (since May 2021) and Non-independent Coordinator of Vale's Sustainability Committee (since May 2021), where he also held the positions of member of the Sustainability Committee (between July, 2020 and April, 2021) and an independent and alternate member of the Board of Directors (between May 2019 and April 2020) and alternate member of the Board of Directors (between May, 2016 and April, 2017) of Vale. His main professional experiences in the last 5 years include: (i) Board member and member of the Investment and Minority Committees (since April 2021) at Petróleo do Brasileiro SA - Petrobras, a publicly traded company in the petrochemical and energy sector, where he also held the position of Tax Advisor (from April 2018 to April 2021); (ii) Member of the Board of Directors (from April 2017 to January 2020) of Kepler Weber SA, a publicly-held company in the industry and trade of products and raw materials related to metallurgy, import and export, service provision, trade in products for the agro-industry, (iii) Member of the Board of Directors (since 2016) of Companhia Energética de Minas Gerais - CEMIG, a publicly traded company in the energy distribution business, where he also holds the position of the Strategy and Finance Committee (since 2016) ; (iv) Chairman of the Board of Directors (since April 2017) of ETERNIT S.A., a leading publicly-held company in the roofing and other segments as construction solutions and launched in 2020 the first Brazilian photovoltaic tile, Tégula Solar; (v) Board member of Companhia Catarinense de Águas e Saneamento - CASAN, a company in the sanitation sector (from May 2019 to February 2020); (vi) Member of the Board of Directors of Centrais Elétricas Brasileiras de Santa Catarina - CELESC, holding company in the energy sector (from 2011 to 2014 and from April 2018 to April 2019); (vii) Fiscal Council Member of Petróleo Brasileiro S.A - Petrobras, a publicly traded company in the petrochemical and energy sector (from April 2017 to April 2018); (viii) Member of the Board of Directors of Battistella S.A, a publicly traded company in the port logistics, heavy vehicles and forestry sector (from April 2016 to April 2017); (ix) Board member (from 2012 to 2014 and from April 2016 to April 2017) of Eletrobras, a publicly-held company in the electricity sector; (x) Chairman of the Board of Directors (from April 2015 to April 2016, being a member from 2012 to 2015) of Usiminas, a publicly-held company in the steel sector; (xi) Member of the Board of Directors (between April 2015 and April 2016) of Bradespar, a publicly-held company in the investment sector; (xiii) Member of the Board of Directors, Chairman of the Related Parties Committee and member of the Audit Committee of Eletropaulo, an energy distribution company (between April 2016 and April 2018); (xiv) Member of the Board of Directors of Gasmig, a gas distribution company (between 2020 and 2021); (xv) Member of the Fiscal Council of Brasken, a petrochemical company (between 2018 and 2019). Graduated in Law from Federal University of Santa Catarina in January, 1995, completed a postgraduation degree in Corporate Tax Administration from Fundação ESAG - ÚNICA in 2000. Holds executive training in mergers and acquisitions from London Business School, and CEO FGV (IBE/FGV/IDE). He is a teacher at the ENA Foundation - Government School for certification of administrators of state-owned companies and mixed-capital companies. He is a Administration Advisor certified by the Brazilian Institute of Corporate Governance (IBGC) since 2010. Mr. Marcelo Gasparino da Silva has stated, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by a final decision at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcelo Gasparino da Silva declared to be a person exposed politically due to the exercise of the positions of (i) Member of the Board of Directors of Eletrobras (from May, 2016 to April, 2017); (ii) Member of the Board of Directors of CEMIG (since 2019); (iii) Member of the Board of Directors of CELESC (from April, 2018 to April, 2019); and (iv) Member of the Fiscal Council of Petrobras (since May, 2019 and from April, 2017 to April, 2018). Mr. Marcelo Gasparino da Silva is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale. For more information, see item 12.12 of this Reference Form.

Antônio Umberto Benetti Queiroz

925.682.468-04

Mr. Antônio Umberto Benetti Queiroz is an independent external expert member of Vale's Operational Excellence and Risk Committee (since June 2020). His main professional experiences in the last 5 years include: (i) Director of HSE and Industrial Efficiency (since 2019) at Braskem SA, a company in the petrochemical sector, where he has also held the position of: (ii) Director of HSE and Industrial Excellence (between 2012 and 2019). He graduated in Chemical Engineering at UNICAMP in December 1981. Completed the (i) Global Leaders Program Program at Braskem S.A. in Wharton, Philadelphia in 2012; (ii) Rhodia S.A.'s Senior Leadership Program, being: (a) Management of Innovation Processes, IMD, Lausanne, in 2000; (b) Strategic thinking, Wharton, San Francisco, in 2003; (c) Communication skills, Verbateam, Paris, in 2003; (d) Leadership: Mobilizing People - IMD, Lausanne, in 2004; (e) Relationship with Unions - Liaisons Sociales, Paris, in 2004; (f) Finance - HEC, Paris, in 2005; (iii) Skill, Tools and Competencies at Fundação Dom Cabral, BH, Brazil and Kellogg Management School, Ilhinois, USA, in 1998; (iv) MBA - International Executive at Amana-Key, São Paulo in 1994; (v) Specialization courses at E.N.S. from Génie Chimique de Nancy and Toulouse in France: (a) Distillation, (b) Adsorption, (c) Liquid-Liquid Extraction, (d) Crystallization, (e) Filtration, (f) Drying, (g) Solids Processing, (h) Safety and Process Control, (i) Reactors and Chemical Kinetics and (j) Electrochemical Process between 1986 and 1989. He holds a PhD in Scientific and Technological Policy from the Geosciences Institute, from UNICAMP, concluded in August 2015. Mr Antonio Umberto Benetti Queiroz declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the sphere judicial or administrative, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Antonio Umberto Benetti Queiroz declared that he was not a politically exposed person, as defined in the applicable regulations.

José Maurício Pereira Coelho

853.535.907-91

He is a Permanent Member of the Board of Directors (being that he held the position of President of this board from May 2019 to April 2021) and non-independent Coordinator of the Finance Committee (since May 2021) of Vale, where he also held the positions of Member of the People, Compensation and Governance Committee (from May 2019 to April 2021) and Member of the Nominating Committee (from July 2020 to April 2021). His main professional experience over the last 5 years include: (i) Chief Executive Officer (from January 2017 to July 2018) and member of the Board of Directors (from 2017 to 2018) of BB Seguridade Participações S.A., a security company; (ii) Vice President of Financial Management and Investor Relations (from February 2015 to January 2017) and Finance Executive (from January 2012 to February 2015) of Banco do Brasil S.A., a publicly traded company in the financial sector; (iii) Member of the Board of Directors and Chairman of the Board of Directors of BB Mapfre SH1 Participações S.A., an insurance company (from January 2017 to July 2018); (iv) Member of the Board of Directors of CNSeg - National Confederation of Social Insurance Companies, a company in the commercial banking sector (from January 2017 to July 2018); (v) Member of the Board of Directors of IRB - Instituto de Resseguros do Brasil, a publicly-held reinsurance company (from March 2017 to March 2019); ; (vi) President of the Employees' Pension Fund of Banco do Brasil - Previ (since July 2018), a company in the private pension sector; (vii) Member of the Board of Directors (since 2015) and Member of the Audit and Risk Committee (since 2019) of Ultrapar Participações S.A., a company in the distribution of fuels, chemicals, logistics for liquid bulk and pharmaceutical retail; and (viii) Chairman of the Deliberative Board of Abrapp - Brazilian Association of Closed Supplementary Pension Entities, a closed private pension fund company (since September 2018). Graduated in Accounting Sciences from UNIGRANRIO in December 1990, completed an MBA in Finance and Capital Markets from FGV-RJ in March 1999, and completed a Specialization in Governance from FGV-RJ in 2004. Mr. José Maurício Pereira Coelho has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Mauricio Pereira Coelho has declared that he is a politically exposed person, due to having held a statutory position in Banco do Brasil S.A. from 2009 to 2017 and BB Seguridade Participações S.A. from 2017 to 2018.

Fernando Jorge Buso Gomes

370.624.177-34

Member and Vice President of Vale's Board of Directors (since May 2021) (being that he has already held the position of Vice President of this body since January 2017, and a Member since April 2015), Non-independent member of the Financial Committee (since May 2021) and Non-independent member of the People, Compensation and Governance Committee (since May 2021) at Vale, where he also held the positions of Coordinator of the Financial Committee (since December 2019 to April 2021), of which he was already a member (since April 2015) and Coordinator of the People, Compensation and Governance Committee (from May 2019 to April 2021), and where he also held the positions of Coordinator of the Governance and Sustainability Committee (from April 2015 to October 2017), member of the Executive Development Committee (from April 2015 to October 2017), member of the Strategic Committee (from April to October 2017), Coordinator of the Sustainability Committee (from November 2017 to April 2019) and member of the People Committee (from November 2017 to April 2019). His main professional experience over the last 5 years includes: (i) Vice-Chairman of the Board of Directors of Valepar

S.A. (from January to August 2017), a privately-held Holding Company that exercised control of Vale up to 08/14/2017, when it was merged into Vale, where he also held the position of Officer (from April 2015 to August 2017) and Member of the Board of Directors (from April 2015 to August 2017; **(ii)** Chief Executive Officer (since April 2015) and Investor Relations Officer (since April 2015), Member of the Board of Directors and Vice President of the Board of Directors (between April 2018 and October 2019) and President of the Board of Directors (between October 2019 and April 2020) of Bradespar S.A., a publicly-held company; **(iii)** Member of the Board of Directors of 2B Capital S.A. (from November 2014 to December 2018), private equity investment management company, where he also held the position of **(iv)** Chief Executive Officer (from March 2015 to June 2016) and **(v)** Officer (from June 2016 to December 2018); **(vi)** Chief Executive Officer of Antares Holdings Ltda., non-financial institution holding company (from April 2015 to April 2017); **(vii)** Chief Executive Officer of Brumado Holdings Ltda. (from April 2015 to April 2017); and **(viii)** Officer of Millennium Security Holdings Corp., Holding Company (since October 2015). Graduated as a Bachelor of Economics from Bennett Integrated Colleges in June 1979. Mr. Fernando Jorge Buso Gomes has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, nor been convicted in any administrative proceeding of the Brazilian Securities Commission, or convicted by a final decision at the judicial or administrative level, which would have suspended or disqualified him for the practice of any professional or commercial activity. Mr. Fernando Jorge Buso Gomes stated that he is not a politically exposed person, as defined in the applicable regulations.

Roberto da Cunha Castello Branco

031.389.097-87

He is a Permanent and Independent Member of the Board of Directors of Vale (since May 2021), Member of the Financial Committee (since May 2021) and Coordinator of the Innovation Committee (since May 2021) at Vale, where he held the position of Officer (between 2003 and 2014). His main professional experience in the last 5 years include: **(i)** Chairman and member of Petrobras' Board of Directors (from May 2015 to April 2016 and from January 2019 to April 2021), publicly traded company in the natural gas and oil exploration and production sector; **(ii)** Director of the Study Center for Economic Growth and Development of Getulio Vargas Foundation (from August 2014 to December 2018); **(iii)** member of the Board of Directors of Invepar S.A. (from May 2017 to December 2018), private manager of urban mobility and transport infrastructure; **(iv)** Member of the Board of Directors of GRU Airport, airport manager (between May and December 2018); and **(v)** Member of the *CEO Steering Committee da Oil and Gas Climate Initiative* (OGCI) and *US Brazil CEO Forum* (from January 2019 to April 2021). Elected by Exame magazine in 2021 as one of the 100 best business leaders in Brazil, Best CEO of the Latin American Oil and Gas Industry, Latin Finance 2020, Economist of the Year in Minas Gerais in 2019, Mercado Comum Magazine. Graduated in Economics from the School of Economics and Administration of Rio de Janeiro in December 1971, holds a master's degree in Economics from the Graduate School of Economics (EPGE) of Fundação Getulio Vargas (FGV), concluded in July 1974, doctorate in Economics from the School of Post Graduate in Economics (EPGE) of Getulio Vargas Foundation (FGV), completed in July, 1977, and *Post Doctoral Fellow* pela *University of Chicago*, completed in August, 1979. Also having executive training in *Sloan School of Management* (MIT), *International Institute For Management Development* (IMD) and *Chicago Booth School of Business*, completed in 2004, 2007 and 2012, respectively. Mr. Roberto da Cunha Castello Branco has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Roberto da Cunha Castello Branco stated that he is a politically exposed person, as set out in the applicable regulations, due to his exercise of the position of Chief Executive Officer of Petrobras, a company controlled by the Federal Union, between January 2019 and April 2021. Mr. Roberto da Cunha Castello Branco is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Listing Regulation and §4º of Article 11 of Vale's Articles of Incorporation of Incorporation.

Murilo César Lemos dos Santos Passos

269.050.007-87

He is an independent Member of Vale's Board of Directors (since December 2019), and member of Vale's Finance Committee (since May 2021). His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of Odontoprev S.A., a company in the dental plans sector (since April 2008); **(ii)** Member of the Board of Directors of São Martinho S.A., a company in the sugar-energy sector (since 2020), where he also held the position of Member of the Board of Directors (from 2006 to 2020); **(iii)** Member of the Board of Directors of Suzano Holding, a holding company in the paper and cellulose sector (from October 2018 to April 2021); **(iv)** Chairman of the Board of Directors of

CPFL Energia, a company in the power sector (from 2010 to 2017); **(v)** Member of the Board of Directors of CCR S.A., a Brazilian infrastructure, transport and services concessions company (from 2017 to 2018); **(vi)** Member of the Management Committee of Suzano S.A., a company in the pulp and paper sector (from 2006 to 2019; and **(vii)** Chairman of the Board of Directors of Tegma Gestão Logística, a company in the logistics sector (since April 2017). Graduated in Chemical Engineering from the Federal University of Rio de Janeiro in July 1971. Mr. Murilo César Lemos dos Santos Passos has declared, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, that he has had no convictions in administrative proceedings of the Securities Commission, or any convictions by a final decision, at the judicial or administrative level, that have suspended or disqualified him to practice any professional or commercial activity. Mr. Murilo César Lemos dos Santos Passos has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. Murilo César Lemos dos Santos Passos is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Adriano Cives Seabra

016.480.547-81

He is an independent external expert member of Vale's Financial Committee (since May 2019), where he has also held the position of independent alternate member of the Board of Directors (between May 2019 and April 2021) e. His main professional experiences in the last 5 years include: **(i)** Member of the Board of Directors of Sanepar S.A. (since April 2017), a publicly-held company in the water and sanitation sector; **(ii)** Member of the Board of Directors of Banrisul S.A. (since June 2018), a publicly traded financial institution; **(iii)** Member of the Board of Directors of Smiles Fidelidade S.A, a company that operates in the field of loyalty programs, (since April 2019); **(iv)** Member of the Board of Directors of CESP S.A. (between April 2017 and April 2019), a publicly-held company in the electricity generation sector; **(v)** Member of the Fiscal Council (between April 2017 and April 2018) of Copasa S.A., a publicly-held company in the water and sanitation sector where he also served as an Alternate Member of the Fiscal Council (between April 2018 and May 2019); **(vi)** Member of the Board of Directors of Eletropaulo SA (between April 2018 and November 2018), a publicly-held company in the electricity distribution sector, where he also served as a Member of the Audit Committee (between April 2018 and December 2018); **(vii)** Partner, Manager and Head of Analysis at Fides Asset Management (between March 2015 and May 2016), a company in the asset management industry; **(viii)** Manager and Head of Analysis at Opus Gestão de Recursos (between August 2011 and January 2015), a company in the asset management sector; **(ix)** Member of the Board of Directors of Even Construtora S.A. (between April 2015 and October 2015), a publicly-held company in the development and construction sector. He graduated in Electronic Engineering from the Federal University of Rio de Janeiro - UFRJ in 1994. Mr. Adriano Cives Seabra declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in administrative proceedings of the Securities and Exchange Commission, or any conviction for a final and unappealable decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Adriano Cives Seabra declared that he was not a politically exposed person, as defined in the applicable regulations.

Ken Yasuhara

234.081.558-44

He is a Member of the Board of Directors (since May, 2021), and Member of the Innovation Committee (since May 2021) at Vale, where he already held the position of member of the Finance Committee (from July, 2020 to April, 2021) and of Alternate Member of the Board of Directors (between December, 2019 and April, 2021). His main professional experiences in the last 5 years include: **(i)** Officer, General Manager at Mitsui & Co. (Brasil) S.A. (Minerals and Metals Resources Unit) (since October 2019), a company headquartered in Brazil in the retail business, where he has previously held the position of **(ii)** Officer, Deputy General Manager, Minerals and Metals Resources Unit, Brazil (between 2018 and 2019); and **(iii)** Alternate Member of the Board of Directors, member of the Finance Committee and Technical Committee of Alumina do Norte, Brazil (between June 2018 and September 2019), a Brazilian mining company. Graduated in Policy Management from Keio University in Japan, in March 2001. Mr. Yoshitomo Nishimitsu has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Ken Yasuhara has declared that he is not a politically exposed person as defined in the applicable regulations.

Luiz Carlos Affonso

049.726.428-58

Mr. Luiz Carlos Affonso is an independent expert member of the Innovation Committee of Vale. His main professional experiences in the last 5 years include: **(i)** Senior VP Engineering, Technology and Corporate Strategy (since August 2020) at Embraer, a company in the air transport industry sector, where he has also held the positions of **(ii)** Senior VP Corporate Strategy, Innovation and Digital Transformation (between October 2017 and July 2020); and **(iii)** Chief Operating Officer (COO) — Commercial Aviation (between April 2011 and October 2017). He graduated in Aeronautical Engineering from Instituto Tecnológico de Aeronáutica (ITA) in December 1982. He has an International MBA in Business Administration from FIA - Fundação Instituto de Administração, completed in December 1996 and specialization in Corporate Strategy from MIT Sloan School of Management, completed in June 2002, as well as a specialization in Management of Managers from the University of Michigan Business School, completed in September 2002. Mr. Luiz Carlos Affonso declared, for all legal purposes, that, in the last 5 years, he had not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by a final and unappealable decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Luiz Carlos Affonso declared that he was not a politically exposed person, as defined in the applicable regulation.

José Luciano Duarte Penido

091.760.806-25

He is a independent Member and President of the Board of Directors (being that it has been a member of this body since May 2019), Member of the People, Compensation and Governance Committee (since May 2021) and Member of the Sustainability Committee (since May 2021), where he also held the position of Coordinator of the Sustainability Committee (from May 2019 to April 2021) and Member of the Compliance and Risk Committee (from May 2019 to April 2021). His main professional experience over the last 5 years includes: **(i)** Chairman of the Board of Directors of Fibria Celulose (between September 2009 and January 2019), a publicly-held company in the field of planted forests and pulp and paper production; **(ii)** Independent member of the Board of Directors (from May 2017 to April 2019) of Banco Santander Brasil, a publicly-held financial institution; **(iii)** Independent member of the Board of Directors of Copersucar S.A. (since 2013), a private company in the logistics and commercialization of sugar and ethanol; **(iv)** Independent member of the Board of Directors of Química Amparo Ypê (from 2013 to December 2019), a private company in the production and marketing of household cleaning products; **(v)** Independent member of the Board of Directors of the Human Talent Committee and the Audit and Risk Committee of Algar S.A. (since 2015), a family holding with businesses on telecommunications, farming, hotel and entertainment sectors. Graduated in Mining Engineering from the School of Engineering of the Federal University of Minas Gerais (December 1970). Mr. José Luciano Duarte Penido has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. José Luciano Duarte Penido has declared that he is not a politically exposed person as defined in the applicable regulations. Mr. José Luciano Duarte Penido is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Oscar Augusto Camargo Filho

030.754.948-87

He is a non-independent external expert member of the People, Compensation and Governance Committee (since May 2021) at Vale, where he has also held the positions of Full Member of the Board of Directors (between September 2003 and May 2021), Member of the Strategic Committee (from March 2006 to October 2017), Member of the Executive Development Committee (from November 2003 to October 2017) and Coordinator of the People Committee (from November 2017 to April 2019). His main professional experiences in the last 5 years include: **(i)** Partner-director of CWH Consultoria em Gestão Empresarial (since October 2003), a consulting company. Before that, he also held the positions of **(ii)** HR Secretary to Board and Commercial Director at Motores Perkins (from 1963 to 1973), a foreign company producing diesel and gas engines; **(iii)** Commercial Director of Minerações Brasileiras-Reunidas S.A. - MBR and Icomi Ind. e Com. de Minérios (Grupo Caemi) (from 1973 to 1981), a privately held mining company; **(iv)** Chief Executive Officer of Caemi

Internacional and Vice President Commercial and HR of the Caemi Group (from 1981 to 1988), a mining company; **(v)** Member of the Board of Quebec Cartier Mining in Montreal – Canada (from 1988 to 1992), a mining company based in Canada; **(vi)** Chief Executive Officer of Caemi Mineração e Siderurgia (holding company of the Caemi Group) (from 1988 to 1992 and from 1996 to 2002), a publicly traded company in the mining industry; and **(vii)** Member of the Board of MRS Logística S.A. (from 1996 to 2002), a publicly traded company in the rail transport industry. He graduated in Law from the Faculty of Law of the University of São Paulo in December 1963, and completed a postgraduate degree in International Marketing from the University of Cambridge in September 1971. Mr. Oscar Augusto Camargo Filho declared, for all purposes of right, which, in the last 5 years, has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by a final and unappealable decision, in the judicial or administrative sphere, which has suspended or disqualified him for practice of any professional or commercial activity. Mr. Oscar Augusto Camargo Filho declared that he was not a politically exposed person, as defined in the applicable regulations.

Rachel de Oliveira Maia

143.363.438-45

Permanent member of Vale's Board of Directors (since May, 2021), where she also holds the position of non-independent member of the Sustainability Committee (since May 2021). Her main professional experiences include: **(i)** Founder and CEO of RM Consulting, focusing on S of ESG and Leaderships (since April, 2018); **(ii)** CEO of Lacoste S.A. (Brazil), luxury clothing company (between November, 2018 and October, 2020); **(iii)** Senior financial controller at 7-Eleven, a convenience store segment (from 1991 to 03/1998); **(iv)** Senior Business Controller at Novartis Pharmacy, pharmaceutical sector (between March 1998 and April 2001); **(v)** CFO of Tiffany & Co. Brasil, jewelry sector (between July 2002 and October 2009); **(vi)** CEO of Pandora Brasil, jewelry sector (between April, 2010 and April, 2018); **(vii)** Member of the General Council of the Danish Consulate (from April, 2014 to November, 2020); **(viii)** Member of the Danish Chamber of Commerce (from April 2014 to November 2020); **(ix)** Member of the Committee of the Chairman of the American Chamber of Commerce (from April 2016 to October, 2019); **(x)** Member of the Institute for the Development of Retail (from 2016 to 2018); **(xi)** Member of the Group of Brazilian Women (since 2020); and **(xii)** Member of the Economic and Social Committee of the Development Council (since 2018). She volunteered for 8 years for needy families in many of Brazil's most challenging regions and in the Society of Vincentians (from 1991 to 1999). Rachel recently founded, in December 2018 a non-profit organization, CAPACITA-ME, which trains students and professionals from underprivileged communities in São Paulo. Graduated in Accounting from University Center - FMU in January, 2017 and holds a MBA from Fundação Getulio Vargas (FGV), completed in 2018. She also completed the Course of Negotiation and Leadership by means of the Executive Education Program from Harvard Business School in June, 2014 and General Management training from Victoria University, in British Columbia, Canada, in 2001. Mrs. Rachel de Oliveira Maia has declared, for all legal purposes, that in the last 5 years he has not received any criminal conviction, any conviction in an administrative proceeding of the Securities Commission, or any conviction by final judgement at judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mrs. Rachel de Oliveira Maia has declared that he is not a politically exposed person as defined in the applicable regulations. Mrs. Rachel de Oliveira Maia is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Carlos Alberto de Oliveira Roxo

149.606.807-68

Mr. Carlos Alberto de Oliveira Roxo is an independent external member of the Sustainability Committee (since May 2019). His main professional experiences in the last 5 years include: **(i)** Director of Sustainability and Corporate Relations of the Chairman of the Board of Directors of Fibria Celulose (between January 1990 and December 2014), a publicly-held company in the planted forests and pulp production business and paper (controlled by the National Bank for Social Economic Development - BNDES), where he also served as a consultant (between January 2016 and December 2018); **(ii)** Member of the Board of Directors of Instituto Terra (since 2015), a non-profit civil organization in the field of environmental restoration; **(iii)** Member of the Board of the Flora Foundation of Support to Botany, linked to the Botanical Garden of Rio de Janeiro (since 2019), an institution that works in the field of preservation of the biodiversity of Brazilian flora; **(iv)** Member of the Executive Group of the Coalition Brazil Climate Agriculture and Forestry (since 2015),

an organization composed of entities that lead agribusiness in Brazil. He graduated in Civil Engineering, specializing in Hydraulics and Sanitation, at the UFRJ School of Engineering in December 1973, having completed a specialization in Sewage Treatment Technology at the Water Quality Institute (currently Danish Hydraulic Institute) in Denmark in July 1976. The Mr. Carlos Alberto de Oliveira Roxo declared, for all legal purposes, that, in the last 5 years, he has not suffered any criminal conviction, any conviction in an administrative proceeding of the Securities and Exchange Commission, or any conviction by final decision, in the judicial or administrative sphere, which has suspended or disqualified him from the practice of any professional or commercial activity. Mr. Carlos Alberto de Oliveira Roxo declared that he was not a politically exposed person, as defined in the applicable regulations.

12.9 - Existence of a marital relationship, common-law marriage or kinship until the 2nd degree related to the officers of the issuer, subsidiaries and controllers

Justification for not completing the table:

All members of Vale's Board of Directors, Board of Executive Officers and Fiscal Council have stated individually and for all legal purposes that there is no marital relationship, common-law marriage or kinship relationship between them and (i) other officers of Vale; (ii) officers of the direct or indirect subsidiaries of Vale; (iii) direct or indirect controlling shareholders of Vale; and (iv) the officers of Vale's direct and indirect controlling companies.

Moreover, all members of the Executive Board of Directors, Board of Directors and Fiscal Council of the direct and indirect subsidiaries of Vale have declared, individually and for all legal purposes, that there is no marital relationship, common-law marriage or kinship up to the second degree between them and direct or indirect controllers of Vale.

12.10 - Relationship of subordination, service provision or control between administrators and subsidiaries, controllers and others

Identification	CPF/CNPJ	Relationship type of Administration member with related person	Type of related person
Position/Function			
Reporting Period December 12, 2020			
Issuer Administrator			
José Maurício Pereira Coelho	853.535.907-91	Subordination	
Director			
Related person			
Banco do Brasil Employees' Pension Fund - PREVI.	33.754.482 / 0001-24		
Note			
Mr. José Maurício Pereira Coelho is Chairman of Banco do Brasil Employees' Pension Fund - PREVI, which holds a direct interest in the Company and is considered a Shareholder with a Relevant Interest.			

Identification	CPF/CNPJ	Relationship type of Administration member with related person	Type of related person
Position/Function			
Reporting Period December 12, 2019			
Issuer Administrator			
José Maurício Pereira Coelho	853.535.907-91	Subordination	
Director			
Related person			
Banco do Brasil Employees' Pension Fund - PREVI.	33.754.482 / 0001-24		
Note			
Mr. José Maurício Pereira Coelho is Chairman of Banco do Brasil Employees' Pension Fund - PREVI, which holds a direct interest in the Company and is considered a Shareholder with a Relevant Interest.			

Identification	CPF/CNPJ	Relationship type of Administration member with related person	Type of related person
Position/Function			
Reporting Period December 12, 2020			
Issuer Administrator			
Eduardo de Oliveira Rodrigues Filho	442.810.487-15	Provision of Services	

Director			
Related person			
CWH Consultoria em Gestão Empresarial	26.703.816/0001-75		
Note Mr. Eduardo de Oliveira Rodrigues Filho is Managing Partner at CWH Consultoria em Gestão Empresarial, which holds a consulting services provision agreement with Mitsui & Co., Ltd., which in turn is a Company's shareholder and signatory of Vale's Shareholders' Agreement.			

Identification	CPF/CNPJ	Relationship type of Administration member with related person	Type of related person
Position/Function			
Reporting Period December 12, 2019			
Issuer Administrator			
Eduardo de Oliveira Rodrigues Filho	442.810.487-15	Provision of Services	
Director			
Related person			
CWH Consultoria em Gestão Empresarial	26.703.816/0001-75		
Note Mr. Eduardo de Oliveira Rodrigues Filho is Managing Partner at CWH Consultoria em Gestão Empresarial, which holds a consulting services provision agreement with Mitsui & Co., Ltd., which in turn is a Company's shareholder and signatory of Vale's Shareholders' Agreement.			

Identification	CPF/CNPJ	Relationship type of Administration member with related person	Type of related person
Position/Function			
Reporting Period 12/31/2018			
Issuer Administrator			
Eduardo de Oliveira Rodrigues Filho	442.810.487-15	Provision of Services	
Director			
Related person			
CWH Consultoria em Gestão Empresarial	26.703.816/0001-75		
Note Mr. Eduardo de Oliveira Rodrigues Filho is Managing Partner at CWH Consultoria em Gestão Empresarial, which holds a consulting services provision agreement with Mitsui & Co., Ltd., which in turn is a Company's shareholder and signatory of Vale's Shareholders' Agreement.			

12.11 - Agreements, including insurance policies, for payment or reimbursement of expenses borne by management members

D&O

Vale holds global liability insurance coverage for Officers and Management Members (D&O), procured with a group of insurers and reinsurers led by Zurich Minas Brasil Seguros S/A, upon payment of a premium of US\$ 10,085,776.00, in effect from October 31st, 2020 to October 31st, 2021, representing the total indemnity limit of US\$ 50 million. This insurance extends to the members of the Board of Directors, Board of Executive Officers, Fiscal Council and any other statutory body, as well as some employees at strategic/managerial levels, both of the Company and its subsidiaries ("Insured").

The purpose of the insurance is to pay financial losses arising from claims against the Insured due to wrongful acts or omissions that may occur in the performance of his/her duties. Said policy, in addition to comprising the repair of damages caused to third parties, to Vale and its subsidiaries by charges made by government agencies, also covers agreements previously authorized by the insurer with the purpose of closing administrative or judicial proceedings. The coverage of the policy also extends to the payment of defense costs of the Insured, as and when due. In addition to the aforementioned coverages, the insurance provides additional guarantees for cases of liability that may affect spouses, heirs, successors, legal representatives and people appointed by Vale to act as Management Members of external entities.

In addition, the policy also guarantees coverage for fines and civil and administrative penalties, liability for environmental damages, freeze of assets and online attachment, and also exclusive coverage for executives from claims in the stock market. Other limitations and exclusions applied are consistent with current market conditions.

Fines covered by the D&O policy refer to civil and administrative proceedings.

Regarding the agreements, the coverage envisaged aims to close the process and all the amounts included in the agreement are subject to coverage in the policy, provided they have prior consent and express agreement of the insurer.

Indemnity Agreement

In support to D&O, Vale also enters into an Indemnity Agreement with members of the Board of Directors and Executive Officers ("Directors") and Extraordinary Independent Advisory Committees ("CIAE Members" and "CIAEs" respectively.) By means of such agreements, the Company has committed to guarantee and bear (i) the reasonable expenses that said Administrators and Members of the CIAEs are likely to incur; and (ii) the amounts that they are ordered to pay; by virtue of an investigation, arbitration and/or judicial administrative proceedings due to an act or omission practiced exclusively in the exercise of their duties at Vale and/or any of its subsidiaries/affiliates, as the case may be, provided that the Administrator or Member of the CIAEs has performed such act or omission in good faith and in Vale's best interest. The indemnity includes, but is not limited to, all legal and/or administrative expenses, as well as any amounts due as damages, interest and fines.

It is important to note that the Indemnity Contracts do not cover fraud, bad faith, misuse of purpose, any willful act or characterized as a willful crime, a liability lawsuit filed by Vale against the Administrator or Member of the CIAEs, a lawsuit filed by the Member Administrator of CIAEs against Vale, the practice of indiscipline or insubordination or abandonment of the position by the Administrator and indemnity, expenses or amounts paid to the Administrator within the scope of the applicable coverage of any D&A policy.

As of April 9, 2020, an Indemnity Policy was approved, through which principles, guidelines, limits and procedures were established that shall govern Vale's indemnity commitments, including the Draft Indemnity Contract to be formalized with the beneficiaries, as defined in the policy. As provided for in the aforementioned Policy, Vale will keep the beneficiaries free of any expenses that are proven to incur or for amounts that are imposed on them due to inquiries, administrative, arbitration and/or judicial proceedings that are instituted or brought against them, for collection of corporate debts or obligations of Vale and/or as a result of any act or omission arising directly from regular management acts or the performance of their functions in Vale and/or its subsidiaries/affiliates and/or in an entity in which Vale holds direct or indirect interest, provided that the beneficiaries have performed such an act or incurred such omission in good faith and aiming at Vale's best interest.

The Indemnity Policy also includes the exclusive cases that will not give rise to the beneficiaries' indemnity described in the second paragraph of letter (c) below.

a) for which reason the company preferred the indemnity contract instead of entering into a civil liability insurance contract with similar coverage (CVM Procedure No. RJ2009/8316)

Vale opted to grant indemnity commitments because they have a wider coverage than the D&Os available on the market, in order to attract and retain qualified professionals and ensure that such people have the security and serenity necessary for the good performance of their duties.

b) the quoted amount of civil liability insurance premium that provides coverage similar to the indemnity contract

The Company has not budgeted civil liability insurance that provides coverage similar to the indemnity commitments, as it understands that the Indemnity Agreement is complementary to the D&O.

c) whether the guarantee offered by the indemnity contract includes the payment or reimbursement of indemnities that the management members are obligated to pay when they are liable for damages caused to third parties as a result of willful misconduct or any unlawful acts committed prior to the provision of the contract

The coverage offered under the Indemnity Contracts entered into with the Administrators and the Members of CIAEs only extends to the acts performed by them in good faith and in the best interest of the Company, not covering fraud, bad faith, misuse of purpose, any intentional act or typified as intentional crime, liability lawsuit filed by Vale against the Administrator or Member of CIAEs, proceeding brought by the Administrator or Member of CIAEs against Vale, practice

of indiscipline or insubordination or abandonment of the position by the Administrator and indemnity, expenses or amounts paid to the Administrator within the scope of the applicable coverage of any D&A policy.

As of April 9, 2020, the indemnity commitments provided for in the Indemnity Policy have the following exclusions: (i) active or passive conduct of the beneficiary that constitutes bad faith, serious fault or through fraud, misuse of purpose, disclosure of strategic and confidential information against Vale's interests, or outside the sphere of competence of the position for which they were elected or of the function exercised; (ii) willful act classified as a willful crime in a final, judicial or administrative decision; (iii) act in self-interest or in the interests of third parties, to the detriment of Vale's interests; (iv) act outside the exercise of duties as a manager or employee or representative, as the case may be; (v) liability lawsuit filed by Vale against the administrator or any lawsuit filed by Vale against the employee or representative; (vi) legal proceeding or arbitration proceeding filed by the beneficiary against Vale, except to the extent that such proceeding filed by the beneficiary is intended to enforce the terms of the Policy and/or the respective Indemnity Contract and is deemed valid in favor of the beneficiary by a final court decision or arbitration award that has not been annulled by a later decision, in which case Vale will only indemnify the beneficiary after the final decision or arbitration award; and (vii) the practice of (a) an act of serious and repeated indiscipline or insubordination or those that have given rise to the commitment to indemnify; or (b) leaving office.

In addition, under the terms of the Indemnity Policy, if it remains proven by a final arbitration, judicial or administrative decision that the beneficiary's act or omission is not subject to indemnification under any of the exclusions mentioned above, the effects of the obligations of Vale related to the Process, the Beneficiary being obliged to reimburse Vale for all amounts disbursed or incurred in the course of the Process or for closing it, within 10 (ten) business days after Vale's notification to that effect.

d) *whether the guarantee offered by the indemnity contract includes the payment or reimbursement of fines resulting from conviction in criminal proceedings or in administrative proceedings or fines provided for in agreements for the termination of administrative processes supported by the management members*

The Indemnity Agreements entered into by Vale do not allow the payment or reimbursement of amounts resulting from the conviction of the Directors or CIAEs' Members in criminal action. In the event of conviction in administrative proceedings or signature of agreements for their closure, the reimbursement of amounts or payment of indemnities to the Management Members is permitted provided that the action or omission has occurred in good faith and in the best interest of the Company and does not fit in cases of exclusion from the guarantee.

Judicial or out-of-court settlements or letters of agreement with the Director or CIAE Member may only be indemnified if he/she has been previously authorized in writing by Vale.

e) *in case of a positive response to at least one of the two previous items, why management believes that such a guarantee would be in the best interest of the company*

Not applicable, considering the information provided in items "c" and "d" above.

(f) the main clauses contained in the indemnity contract, including the overall or annual limit of coverage guaranteed to beneficiaries, where applicable, as

well as the period of coverage set out in said document

The main clauses of the Indemnity Contracts entered into provide for: (i) the coverage depth; (ii) the hypothesis of exclusion from coverage; (iii) the duration of the coverage, which includes, also, the proceedings initiated after the end of the term of administration of the Administrator or of the Member of CIAEs, provided that the act questioned has been practiced during the exercise of their position; (iv) the procedure for sponsoring the administrator's defense; (v) the subrogation of Vale in case of reimbursement by the D&A Insurance Policy. Finally, the Indemnity Contract entered into by Vale does not provide for a global or annual coverage limit.

As of April 9, 2020, the Indemnity Policy also establishes in the above paragraph (i) the coverage depth; (ii) the exclusion hypothesis; (iii) the term of coverage, which includes, even, the proceedings initiated after the end of the exercise of the position, provided that the act questioned has been practiced during the exercise of their position; (iv) the procedure for triggering the contract and the indemnity commitment, which establishes a mechanism to remove conflict of interests; (v) the subrogation of Vale in case of reimbursement by the D&A Insurance Policy; (vi) that all decisions taken by the Board of Directors regarding the granting of new contracts or indemnity commitments or the execution of the procedures for triggering the indemnity contracts must be substantiated and recorded in the minutes of the body's meeting

In addition, it also provides that the global annual coverage of up to USD 200,000,000.00 applicable to the set of (i) employees based in the geotechnical area and/or who act attesting to the stability of geotechnical structures in their operations or those of their subsidiaries (ii) of the employees responsible for declaring Vale's mineral resources and reserves ("competent" or "qualified person" before the Securities and Exchange Commission); and (iii) of the persons appointed by Vale or its subsidiaries for the position of administrator, member of the Fiscal Council and/or member of the advisory committee in entities in which Vale holds a direct or indirect interest, which are directly responsible for actions related to the regular exercise of the functions of the position they occupy; as well as providing logistical support necessary for their participation in administrative and judicial investigations, subject to other terms and conditions of the Policy.

g) which body of the company is competent to determine the payment or reimbursement that the management members are entitled to under the indemnity contract and how that body will deal with the conflicts of interest inherent to the decision

The notifications regarding Indemnity Contracts entered into between Vale and any members of the Board of Directors or Board of Executive Officers shall be forwarded to the Board of Directors for resolution. Under the terms of the Related-Party Transactions Policy, the member of the Board of Directors involved should step away, even physically, from any discussions in the Board of Directors on the subject. For further information on the Related-Party Transactions Policy see item 16.1 of this Reference Form. The Board of Directors will assess whether the CIAE Members fall under the aforementioned exclusions.

As of April 9, 2020, the Indemnity Policy provides that beneficiaries must notify Vale of a decision that determines the payment or refund provided for in the Indemnity Contract, by means of a written communication sent to Vale's General Advisor. Once notification of a process has been received, it will be the responsibility of Vale's General Counsel to verify whether the beneficiary's act is liable to be covered under the terms of the Policy and/or the Indemnity Agreement, including whether there is an unequivocal framework in any of the excluders. In the event that the Beneficiary is the acting General Counsel himself, he must forward his request to the Board of Executive Officers of Vale, which will carry out the verification and classification. Vale's General Counsel may, in

exceptional cases or that present some ambiguity, submit the request to analysis and resolution: (i) of Vale's Board of Directors, in cases where the beneficiary is a member of the Board of Directors, Executive Officer or member of the Advisory Committee to Vale's Board of Directors or member of the Fiscal Council, subject to the procedures on conflict of interest contained in Vale's Related-Party Transactions Policy; and (ii) the Executive Board, in the event that the beneficiary is a former General Counsel.

In the event that (i) more than half of the members of the Board of Directors are part of the proceeding in question, or (ii) there is a divergent vote on the classification of the act as subject to indemnity by five (5) Directors or one third (1/3) of the Executive Officers, as the case may be; Vale must submit the request to the analysis and decision of an independent third party that is impartial and has an unblemished reputation and robust legal experience, whose name will be indicated by Vale's General Counsel and approved, as the case may be, by non-conflicting Directors or by the Executive Board. The decision of such an independent third party will bind the parties.

Decisions on requests made must be substantiated and take into account the act or omission of the beneficiary that gave rise to the proceeding in question, as well as all information and elements available at the time of the decision.

12.12 — Other Relevant Information

Additional information on item 12.1

Board of Directors and Fiscal Council

In reporting period 2020, 4 participations of the Fiscal Council were scheduled and held at meetings of the Board of Directors, as well as provided for the reporting period of 2021 and 4 participations of the Fiscal Council at meetings of the Board of Directors.

Board of Executive Officers and Statutory Audit Committee

As mentioned in Item 12.1 (a) (ii) of this Reference Form, the Board of Directors decided to install the Audit Committee at a meeting on March 11, 2020.

Under the terms of articles 20 to 22 of Vale's Articles of Incorporation, the rules regarding the functioning and attributions of this Committee shall be defined by the Board of Directors and set forth in the Bylaws of the Committee.

In the fiscal year 2020, members of the Executive Board participated in 9 meetings of the Statutory Audit Committee, corresponding to 38% of such meetings. For the fiscal year 2021, Executive Officers are expected to participate in at least 4 of the meetings of the Statutory Audit Committee.

Additional information on items 12.5/6 and 12.7/8

Date of election and investiture of members of the Board of Directors, Fiscal Council and Committees

At Vale's Annual and Special Shareholders' Meetings, with start date on April 30, 2021 and end date on May 3, 2021(AGOE 2021), the Members of the Company's Board of Directors were elected. However, on April 30, 2021, AGOE 2021 was suspended in relation to the items of the Agenda covering the election of the members of the Board of Directors, the Chairman and the Vice-Chairman of the Board of Directors, and was resumed at 10:00 a.m. on the following business day, only in relation to such items. Therefore, the date of election of the members of the Board of Directors was considered the 3rd of May, 2021.

Furthermore, it is hereby clarified that Manuel Lino Silva de Sousa Oliveira (also appointed as Coordinator of the Audit Committee and member of the People, Compensation and Governance Committee) in all his positions will only take office on August 1st, 2021, as entered upon the MINUTES of the AGOE 2021, by virtue of his statement that he still holds the position of independent advisor in Atofagasta plc, where he will make his transition over the next few months, and that he will finish his term of office as an advisor of Blackrock World Mining Trust plc, aiming to solve potential conflict-of-interest situations.

This Reference Form will be updated, as applicable, upon occurrence of such investiture.

System Restrictions

Due to restrictions of the system, the following is the full resumé of Mr. Marcelo Gasparino da Silva:

Marcelo Gasparino da Silva

807.383.469-34

He is an independent member of the Board of Directors (since April, 2020), Non-independent member of the Operational Excellence and Risk Committee (since May 2021) and Non-independent Coordinator of Vale's Sustainability Committee (since May 2021), where he also held the positions of member of the Sustainability Committee (between July, 2020 and April, 2021) and an independent and alternate member of the Board of Directors (between May 2019 and April 2020)and alternate member of the Board of Directors (between May, 2016 and April, 2017). His main professional experiences over the last 5 years include: **(i)** Member of the Board of Directors and member of the Investment and Minority Committee (since April 2021) of Petróleo Brasileiro S.A – Petrobras, a publicly held company in the petrochemical and energy sector, where he also held the position of member of the Fiscal Council (from April 2018 to April 2021); **(ii)** Member of the Board of Directors (from April 2017 to January 2020) of Kepler Weber S.A., a publicly held company in the industry and trade of products and raw materials related to metallurgy, import and export, service provision, trade of products for the agroindustry, **(iii)** Member of the Board of Directors (since 2016) of Companhia Energética de Minas Gerais – CEMIG, a public company in the energy distribution industry, where he also held the position of member of the Finance and Strategy Committee (since 2016); **(iv)** Chairman of the Board of Directors (since April 2017) of ETERNIT S.A., a

publicly-held company, market leader in the segments of roof tiles and other segments for construction solutions, and launched, in 2020, the first Brazilian photovoltaic roof tile, the "Tégula Solar"; **(v)** Director of Companhia Catarinense de Águas e Saneamento - CASAN, a company in the sanitation sector (from May 2019 to February 2020); **(vi)** Member of the Board of Directors of Centrais Elétricas Brasileiras de Santa Catarina – CELESC, a holding company in the energy sector (from 2011 to 2014, and from April 2018 to April 2019); **(vii)** Fiscal Advisor of Petróleo Brasileiro S.A – Petrobras, a publicly held company in the petrochemical and energy sector (from April 2017 to April 2018); **(viii)** Director of Battistella S.A., a publicly held company in the port logistics, heavy vehicles and forestry sectors (from April 2016 to April 2017); **(ix)** Director (from 2012 to 2014, and from April 2016 to April 2017) of Eletrobras, a publicly held company in the power sector; **(x)** Chairman of the Board of Directors (from April 2015 to April 2016, and a member, from 2012 to 2015) of Usiminas, a publicly held company in the steel industry; **(xi)** Member of the Board of Directors (between April 2015 and April 2016) of Bradespar, a publicly held company in the investment sector; **(xii)** Member of the Board of Directors, Chairman of the Related Parties Committee and member of the Audit Committee of Eletropaulo, a company in the energy distribution sector (between April 2016 and April 2018); **(xiii)** Member of the Board of Directors of Gasmig, a company in the gas distribution sector (between 2020 and 2021); **(xiv)** Member of the Fiscal Council of Brasken, a petrochemical company (between 2018 and 2019). He graduated in Law at Universidade Federal de Santa Catarina in January 1995, receive a postgraduation degree in Corporate Tax Management at Fundação ESAG - ÚNICA in 2000. Has executive training in mergers and acquisitions from London Business School, and CEO FGV (IBE/FGV/IDE). He is a teacher at the ENÁ Foundation - Government School for certification of administrators of state-owned companies and mixed-capital companies. He has been an Administration Advisor certified by the Brazilian Institute of Corporate Governance (IBGC) since 2010. Mr. Marcelo Gasparino da Silva has stated, for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Brazilian Securities Commission, or any conviction by a final decision at the judicial or administrative level, which has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Marcelo Gasparino da Silva declared to be a person exposed politically due to the exercise of the positions of (i) Member of the Board of Directors of Eletrobras (from May, 2016 to April, 2017); (ii) Member of the Board of Directors of CEMIG (since 2019); (iii) Member of the Board of Directors of CELESC (from April, 2018 to April, 2019); and (iv) Member of the Fiscal Council of Petrobras (since May, 2019 and from April, 2017 to April, 2018). Mr. Marcelo Gasparino da Silva is an independent member of the Board of Directors of the Company in accordance with the Independence Criteria of Novo Mercado Regulation and §4º of Article 11 of Articles of Incorporation of Vale.

Due to restrictions of the system, the following is the full resumé of Mr. Glauco Vinícius de Oliveira Gonçalves:

Glauco Vinícius de Oliveira Gonçalves

992.440.636-20

Mr. Glauco Vinícius de Oliveira Gonçalves is a non-independent alternate member of Vale's Business Risks Executive Committee – Geotechnical (since April 2020), where he also holds the position of Strategy, Participation and New Business Manager (since August 2019), and has held the following positions: **(i)** Engineering, Operation, Socio-environmental and S&S General Manager (from February 2012 to December 2014); **(ii)** Management Manager of Energy Consortia Management Manager (from May 2010 to January 2012); and **(iii)** Financial Economic Analyst (from August 2003 to January 2007). His main professional experiences in the last 5 years include: **(i)** Full Member of the Board of Directors (since August 2019), **(ii)** Operation Officer (from August 2014 to July 2019), **(iii)** Full Member and Coordinator of the Financial Committee (since July 2019), **(iv)** Full Member of the Strategic Committee (since July 2019), **(v)** Alternate Member of the Management and Corporate Development Committee (since July 2019), **(vi)** Full Member of the Audit Committee (since July 2019) and **(vii)** Alternate Member of the Electric Energy Trading Committee (since July 2019) of Aliança Geração de Energia S.A., a company in which Vale holds interest; **(viii)** Full Member of the Board of Directors (since August 2019) and **(ix)** Officer without specific designation (since July 2019) of Aliança Norte Energia Participações S.A., a company in which Vale holds interest; **(x)** Officer without specific designation (from August 2016 to August 2019) of Mantiqueira PCHS Participações S.A., a wind energy company, in which Vale has an indirect interest; **(xi)** Officer without specific designation (from January 2016 to January 2019) of Aliança Eólica Santo Inácio Participações S.A., in which Vale has an indirect interest; **(xii)** Full Member of the Deliberative Council (from May 2012 to February 2015) of the Consortium of the Aimorés Hydroelectric Power Plant- Eliezer Batista Hydroelectric Plant, in which Vale holds interest; **(xiii)** Alternate Member of the Deliberative Council (since August 2019), **(xiv)** Full Member of the Deliberative Council (between April 2012 and July 2019) and **(xv)** Implementation Officer (from June 2014 to June 2017) of the Candonga Consortium, in which Vale holds interest; **(xvi)** Full Member of the Deliberative Council (between June 2012 and July 2019) of the Capim Branco Energia Consortium, in which Vale holds an indirect interest; **(xvii)** Full Member of the Deliberative Council (from June 2012 to February 2015 and since August 2019) of the Estreito Energia Consortium – CESTE, in which Vale holds interest; **(xviii)** Full Member of the Deliberative Council (from May 2012 to and August 2019) of the Igarapava Hydroelectric Power Plant Consortium, in which Vale holds indirect interest; **(xix)** Full Member of the Plenary Council of the Management Committee (from December 2012 to December 2014 and since August 2019) of the Machadinho Hydroelectric Consortium, in which the Company holds interest; **(xx)** Alternate Member of the Deliberative Council (since August 2019) of the GESAI Consortium - Santa Isabel, in which Vale holds

interest; and **(xxi)** Full Member of the Deliberative Council (from May 2012 to July 2019) of the Porto Estrela Hydroelectric Exploitation Consortium, in which Vale holds interest. Graduated in Accounting Sciences in the Federal University of Paraná in December 2001. He completed an MBA in Financial Management and Controllershhip at Fundação Getúlio Vargas in August 2003 and executive MBA in Consortium at Fundação Dom Cabral in February 2014. He also holds a Master's degree in Business Administration in Fundação Cultural Dr. Pedro Leopoldo, completed in March 2005, having as concentration area "Innovation and Competitiveness Management" and as a research line "Business Management and Competitiveness - People Management". Mr. Yoshitomo Nishimitsu has declared for all legal purposes, that in the last 5 years he has not been convicted of any criminal offense, any conviction in an administrative proceeding of the Securities Commission, any conviction by final and unappealable decision, at the judicial or administrative level, that has suspended or disqualified him for the practice of any professional or commercial activity. Mr. Glauco Vinícius de Oliveira Gonçalves declared that he was not a politically exposed person, as defined in the applicable regulations.

Additional information on the participation of members of the board of directors and fiscal council of the Company in meetings held by the respective body (item 12.6)

Board of Directors	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Director	% of member's participation in meetings held after investiture
José Maurício Pereira Coelho	22	100%
Eduardo de Oliveira Rodrigues Filho	22	95%
Fernando Jorge Buso Gomes	22	100%
Ken Yasuhara	22	0%
José Luciano Duarte Penido	22	100%
Manuel Lino Silva de Sousa Oliveira	N/A	N/A
Roberto da Cunha Castello Branco	N/A	N/A
Marcelo Gasparino da Silva	N/A	95%
Mauro Gentile Rodrigues da Cunha	N/A	N/A
Rachel de Oliveira Maia	N/A	N/A

Roger Allan Downey	N/A	100%
Murilo César Lemos dos Santos Passos	N/A	95%
Lucio Azevedo	N/A	86%
André Viana Madeira	N/A	N/A

Fiscal Council	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Director	% of member's participation in meetings held after investiture
Bruno Funchal	4	100%
Cristina Fontes Doherty	10	100%
Nelson de Menezes Filho	10	0%
Marcelo Amaral Moraes	10	100%
Marcelo Santos Dall Occo	N/A	N/A
Marcus Vinícius Dias Severini	10	100%
Vera Lucia de Almeida Pereira	N/A	N/A
Raphael Manhães Martins	10	100%
Adriana de Andrade Solé	N/A	N/A

Additional information on the participation of members of the Company's committees in meetings held by the respective entity (item 12.8)

Audit Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
Manuel Lino Silva de Sousa Oliveira	N/A	N/A
Mauro Gentile Rodrigues da Cunha	N/A	N/A
Luciana Pires Dias	22	100%
Sergio Ricardo Romani	22	100%

Operational Excellence and Risk Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
Roger Allan Downey	14	100%

Eduardo de Oliveira Rodrigues Filho	14	100%
André Viana Madeira	N/A	N/A
Marcelo Gasparino da Silva	N/A	N/A
Antônio Umberto Benetti Queiroz	11	100%

Finance Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
José Maurício Pereira Coelho	N/A	N/A
Fernando Jorge Buso Gomes	18	100%
Roberto da Cunha Castello Branco	N/A	N/A
Murilo César Lemos dos Santos Passos	18	100%
Adriano Cives Seabra	18	100%

Innovation Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
Roberto da Cunha Castello Branco	N/A	N/A
Roger Allan Downey	N/A	N/A
Ken Yasuhara	N/A	N/A
Luiz Carlos Affonso	N/A	N/A

People, Compensation and Governance Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
Mauro Gentile Rodrigues da Cunha	N/A	N/A
Fernando Jorge Buso Gomes	13	100%
José Luciano Duarte Penido	N/A	N/A
Manuel Lino Silva de Sousa Oliveira	N/A	N/A
Oscar Augusto Camargo Filho	N/A	N/A

Sustainability Committee	Total of Meetings Held in the last reporting period by the respective entity since de investiture of the member of the Committee	% of member's participation in meetings held after investiture
Marcelo Gasparino da Silva	12	100%
Eduardo de Oliveira Rodrigues Filho	N/A	N/A
Rachel de Oliveira Maia	N/A	N/A
José Luciano Duarte Penido	13	100%
Carlos Alberto de Oliveira Roxo	13	100%

Business Risk Executive Committee - Operational	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
Carlos Henrique Senna Medeiros	5	100%
Rodrigo Ramos Silveira	5	100%
Kleger Duque de Almeida Filho	5	100%
Luis Eduardo Simonetti Baroni	5	100%
Carlos Rodrigues de Campos Mello Junior	5	100%
Bruno Santos Ferraz	5	100%
Rafael Jabur Bittar	5	0%
Patrick James	3	100%
José Luiz de Oliveira Martins	3	100%
Lucas Barros Duarte	5	40%
Fernando Campos Guimarães	5	80%
Bruna Paiva Maffra	5	0%
Geraldo Pimentel Mármore Sobrinho	5	0%
Claudemir Peres	5	100%
Michael Gerald Duffy	5	20%
Guilherme Alves de Melo	5	20%
Roberto Mauro Di Biase Sampaio	4	100%

Business Risk Executive Committee - Geotechnicians	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
Carlos Henrique Senna Medeiros	6	83%
Luiz Fernando Landeiro Junior	6	67%
Luis Eduardo Simonetti Baroni	6	50%
Rodrigo Ramos Silveira	6	100%
Túlio Weber Drumond Santos	6	83%
Carlos Rodrigues de Campos Mello Junior	6	17%
Rafael Jabur Bittar	6	100%
Carlos Eduardo Bechara Miana	6	100%
Diogo Afonso Costa	6	17%
Ricardo Batista Mendes	5	100%
Frank Marcos da Silva Pereira	6	100%
Diogo Augusto Monteiro	6	0%
Claudio Augusto Mendes	3	33%
Claudemir Peres	6	0%
Leonardo Camona Xerinda	6	50%
Lucas Barros Duardo	6	50%
Luke Thomas Mahony	6	83%
Roberto Mauro Di Biase Sampaio	5	60%
Glauco Vinícius de Oliveira Gonçalves	5	40%

Business Risk Executive Committee - Strategy, Financial and Cyber Risks	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
Luciano Siani Pires	6	100%
Eduardo de Barros Montarroyos	6	100%
Marcio Felipe Milheiro Aigner	6	100%
Juan Franco Merlini	6	83%
Fabio de Souza Queiroz Ferraz	6	100%
Marco Aurelio Brito Braga	3	67%
José Cláudio Cyrineu Terra	N/A	N/A

Rogério Tavares Nogueira	6	100%
Ricardo Monte Alto de Almeida	0	0
Vagner Silva de Loyola Reis	4	75%
Murilo Muller	2	0%
Luiz Fernando Landeiro Junior	4	75%
Dan Harif	6	50%
Luiz Antonio R. R. Scavarda do Carmo	6	67%
Viktor Nigri Moszkowicz	6	33%
Patricia Silva Rodrigues Scheel	6	67%
Eduardo Amiel Pfiffer	6	0%
Sonia Zagury	6	17%
Carlos Eduardo Woelffel Martins	6	17%
Marcos Guilherme Ruffeil Moreira	4	100%
Bruno Araujo Perrotta	4	50%
Andressa Machado Duran Linhares	3	67%
Eliane Velo Dominguez	2	0%

Business Risk Executive Committee - Compliance	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
Alexandre Silva D'Ambrosio	5	80%
Eduardo de Barros Montarroyos	5	100%
André Moreira Santos	5	100%
Hugo Guimarães Barreto Filho	5	0%
Octavio Bulcão Nascimento	5	60%
Camilla dos Reis Claudio Soares	5	100%
Roberta Gomes de Oliveira	5	80%
Milena Jorge Martins	4	0%
Rafael Gomes Martinez	4	0%
Cláudio Depes Tallon Netto	4	25%
Karin Nunes Kern Rocha	4	25%
Mariana Correia Pereira	4	25%
Andressa Machado Duran Linhares	3	100%

Business Risks Executive Committee – Sustainability, Institutional Relations and Reputation	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
Luiz Eduardo Fróes do Amaral Osorio	1	100%
Rodrigo Lauria de Castro Loureiro	1	100%
Hugo Guimarães Barreto Filho	1	100%
Júlio César Gama de Almeida	1	100%
Luiz Ricardo de Medeiros Santiago	1	0%
Bruno Santos Ferraz	1	100%
Camilla Lott Ferreira	1	100%
Marcelo Leite Barros	1	0%
Luiz Gustavo Reche	1	0%
Antonio Daher Padovezi	1	0%
Sérgio Inácio Cassamo Chitará	1	100%
Fernando Marino	1	100%
Rafael Gomes Martinez	1	100%
Renata Silveira Bellozi	1	0%
Elisa Romano Dezolt	1	100%
Vitor Monteiro Cabral	1	100%
Liesel Mack Filgueiras	1	0%
Dairson Alexandre Pintor	1	100%
Valéria Cristina Franco	1	100%
Marcelo Tertuliano Melo	1	100%
Marcos Lewin	1	100%

Conduct and Integrity Committee	Total of Meetings Held in the last reporting period by the respective entity since the investiture of the Committee member	% of member's participation in meetings held after investiture
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Marina Barrenne de Artagão Quental	10	90%
Ricardo Henrique Baras	10	80%
Alexandre Silva D'Ambrosio	10	100%
Camilla dos Reis Claudio Soares	10	100%

Additional Information to item 12.10

Mr. Lucio Azevedo, full member of the Board of Directors, stated that, although he is an employee of Vale, he was assigned to the Union of Workers in Railway Companies of the States of Maranhão, Pará and Tocantins, under the terms of the legislation in force, and therefore, he stated, for all legal purposes, that there are no labor or control relations between him and (i) any company directly or indirectly controlled by Vale; (ii) any direct or indirect controlling shareholders of Vale; or (iii) any relevant suppliers, customers, debtors or creditors of Vale, its subsidiaries or its parent companies.

Information about annual meeting installation quorums

The following is information on the installation of our general shareholders' meetings held in the last three years and in the current year up to the date of filing of this Reference Form:

Date	04/30/2021
Type of Shareholders' Meeting	Annual and Special Shareholders' Meeting
Installation on second call	No
Installation Quorum	The ordinary and extraordinary meetings were installed on the first call with the presence of shareholders representing 80.6% and 80.93% of the shares issued by the Company, respectively.

Date	03/12/2021
Type of Shareholders' Meeting	Extraordinary Shareholders' Meeting
Installation on second call	No
Installation Quorum	The extraordinary meeting was installed on the first call with the presence of shareholders representing 77.26% of the shares issued by the Company.

Date	04/30/2020
Type of Shareholders' Meeting	Annual and Special Shareholders' Meeting
Installation on second call	No
Installation Quorum	The ordinary and extraordinary meetings were installed on the first call with the presence of shareholders

	representing 76.7% and 78.6% of the shares issued by the Company, respectively.
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Date	4/30/2019
Type of Shareholders' Meeting	Annual and Special Shareholders' Meeting
Installation on second call	No
Installation Quorum	The annual and special shareholders' meetings was held on first call with the attendance of shareholders representing 82.24% and 80.09% of the shares issued by the Company.

Date	April 13, 2018
Type of Shareholders' Meeting	Annual and Special Shareholders' Meeting
Installation on second call	No
Installation Quorum	The meeting was installed on first call with the attendance of shareholders representing 83% of the shares issued by the Company.

Information on the Person in charge of Internal Audit

Name	Ricardo Henrique Baras
CPF	103.564.968-30
Age	50
Profession	Officer
Position held	Non-statutory Director of Internal Audit
Election date	08/12/2013
Date of appointment	08/12/2013
Term duration	Indefinite
Other positions/functions performed at the issuer	Member of the Conduct and Integrity Committee (former Ethics Committee) and acting Ombudsman
Professional Experience	Audit Director of Suzano Papel e Celulose S.A. (from 2009 to 2010) and Audit Director of Alcoa Alumínio S.A. (since 2010).

For information on the advisory and statutory committees of the Board of Directors and the non-statutory Board of Executive Officers, see item 12.1 of this Reference Form.

Information about employee training on the Code of Ethical Conduct

For such information, see item 5.4 of this Reference Form.

Evaluation process of the Board of Directors, committees, board of executive officers and members of each of the mentioned bodies

For information on the evaluation process of the board of directors, the committees, the board of executive officers and the members of each of these bodies, see item 12.1(d).iii of this Reference Form.

Training programs for members of the board of directors, its committees, board of executive officers and fiscal council

In order to integrate new members of the Board of Directors, Vale's Corporate Governance Secretary regularly promotes an integration and training program that involves: (a) holding of workshops with Executive Officers and several areas of the Company for an institutional view and a overview of strategic issues of the Company and, therefore, to inform the new member about issues that are essential for understanding the business and its challenges; and (b) the visitation of its members to the Company's operational areas in Brazil and abroad, in order to keep them in touch with the local leadership and updated on all critical business issues in their day-to-day routines.

Main aspects of the Company's Governance in relation to the facts that have an impact on third parties in the meetings of the board of directors

Pursuant to item 10.2 of the Bylaws of the Board of Directors, *"The notice of meeting shall be sent to all members of the Board of Directors, preferably sixteen (16) calendar days in advance, observing the best interests of the Company, through the appropriate tools of the Corporate Governance Portal of Vale, stating the date, the time and place of the meeting, as well as the list of matters to be dealt with, together with the respective proposal for resolution and/or other documents necessary for the examination of the matter."*

The meeting agenda of the Board of Directors is also shared, in advance, with the entire Board of Executive Officers. In addition, in order to ensure the timely, correct and fair disclosure of information to the market, at the end of the meeting, notice is given of the deliberations contained in the agenda to the Executive Officer responsible for Investor Relations, when these may have a significant influence in the price of the securities issued by Vale and in the decision of the investors to exercise any rights related to such securities.

13. Management compensation

13.1 - Describe the compensation policy or practice of the board of directors, statutory and non-statutory board, fiscal council, statutory committees and audit, risk, financial and compensation committees, addressing the following aspects

a. objectives of the compensation policy or practice

Vale is one of the largest diversified mining companies in the world and one of the largest private companies in Latin America. It is present in 23 countries, with shareholders in all continents, and 74,316 own employees and 111,921 outsourced employees (of which 57,705 are permanent and 54,216 of projects) operating in their operations on December 31, 2020.

Therefore, it is a global company, of large size and great complexity, which requires from its management a deep knowledge of its business and market, in addition to an unlimited dedication.

As a global company, Vale knows that attracting the best professionals, retaining talent, motivating and involving professionals who occupy strategic positions, especially Statutory Officers, Members of the Board of Directors and Committees, is a critical challenge for the Company's success at all times. Therefore, the market is always the benchmark, within a global competition perspective, and Vale considers, for purposes of determining the compensation of its management, the compensation policies and practices adopted by the top mining companies, as well as other large global companies from other industries.

That said, the annual compensation proposal is prepared based on these market principles, also taking into account the responsibilities of each member, the time dedicated to their duties, their competence and professional reputation and the value of their services in the market. Said proposal also considers the market practices in the localities where the Company operates, its alignment with the short and long term strategy, its return to shareholders and the sustainability of its business.

The compensation proposals are prepared with the support of the Committee of People, Compensation and Governance, composed of four members of the Board of Directors, one of them independent and specialized in corporate governance. This committee also has an external member, specialized in human resources, who makes recommendations to the Board of Directors in relation to the annual global compensation of the Executive Board.

The Board of Directors deliberates and submits the compensation proposal for approval and analysis by the shareholders, under the provisions of Article 10, Paragraph 4, of the Company's Bylaws. Once the total compensation is approved at the Annual Ordinary Shareholders' Meeting, it is the responsibility of the Board of Directors, with the support of the People, Compensation and Governance Committee, to distribute it among the Executive Officers and the Advisory Committees to the Board.

The Executive Board's Compensation Policy was approved in 2019 by Vale's Board of Directors, and made available in Portuguese and English versions on the Company's website for access by shareholders and investors. It describes the total compensation package for the Chief Executive Officer and Statutory Executive Board, as described in item 13.1 (b)(i) below.

As a result of a continuous and thorough review of our compensation programs, which included investor feedback, external market research and data analysis of various performance metrics, Vale continues to advance in its compensation practices, aiming to increase competitiveness and alignment with shareholders, in addition to supporting the cultural transformation initiative, which started at the beginning of 2019, in order to promote culture as a facilitator of its strategy and ambitions for the coming years.

b. Composition of the compensation, indicating:

i. Description of the elements of compensation and the objectives of each one:

BOARD OF DIRECTORS

Fixed Compensation

Base fee. The compensation consists exclusively of the payment of a fixed monthly amount (fees), with the purpose of remunerating the services of each member of the Board, within the scope of the responsibility assigned to the Company's Board of Directors.

The alternate members of the Board of Directors shall be compensated only for each meeting to which they attend, in the absence of the sitting member, in the amount of 50% of the compensation awarded to the sitting member.

Direct and Indirect Benefits. Directors are not entitled to direct and indirect benefits. The Board members are entitled to life insurance.

Participation in Committees. Since 2018, the full members of the Board of Directors who are also members of committee(s), additionally receive the respective monthly compensation as a member of such committee(s), observing the limit of receipt of such compensation due in virtue of their participation in up to two committees.

Variable Compensation, Benefits and Others

They are not entitled to other types of compensations or benefits, including bonuses, profit sharing, compensation for participation in meetings, commissions, post-employment benefits, benefits motivated by the termination of position, and share-based compensation.

FISCAL COUNCIL

Fixed Compensation

Base fee. The compensation consists exclusively of the payment of a fixed monthly amount (fees), with the objective of remunerating the services of each member of the Fiscal Council, within the scope of the responsibility assigned to the Fiscal Council. The determination of the Fiscal Council's compensation is calculated as a percentage (10%) of the average compensation attributed to the Company's Statutory Officers.

In the event of vacancy, the sitting member shall not be compensated, while the alternate members shall be compensated only in cases where they carry out their activities due to vacancy, impediment or absence of the respective sitting member.

Direct and indirect benefits and participation in Committees. They are not entitled to direct and indirect benefits, representation funds or compensation for participation in Committees, except reimbursement of travel and per diem expenses necessary for the performance of their duties, to which they are entitled.

Variable Compensation, Benefits and Others

They are not entitled to other types of compensations or benefits, including bonuses, profit sharing, compensation for participation in meetings, commissions, post-employment benefits, benefits motivated by the termination of position, and share-based compensation.

ADVISORY COMMITTEES

The compensation considers exclusively the payment of a monthly amount (fees), for the purpose of remunerating the services of each member, within the scope of responsibility assigned to each Advisory Committee.

The Board of Directors, for advisory, permanently counts on five (05) technical and consulting committees, namely: (a) People, Compensation and Governance Committee, (b) Operational Excellence and Risk Committee, (c) Finance Committee, (d) Audit Committee, (e) Nominating Committee, (f) Sustainability Committee, and (g) Innovation Committee (collectively, "Advisory Committees").

As a result of the rupture of the Dam I of the Córrego de Feijão Mine, which took place in the city of Brumadinho on January 25, 2019, the Board of Directors decided to create three (3) Independent Extraordinary Advisory Committees ("CIAEs"), which are non-statutory committees, namely:

- The Support and Reparation CIAE is dedicated to monitoring the measures aimed at assisting victims and recovering the affected area;
- The Investigation CIAE is focused on the investigation of the causes; and
- The Dam Safety CIAE is focused on recommending measures to be taken to reinforce the safety conditions thereof.

In February 2020, the Support and Repair CIAE and the Verification CIAE delivered their reports and were discontinued, while the Dam Safety CIAE was maintained for another year and published its Final Report in May 2021.

Fixed Compensation

Base fee. The compensation consists, exclusively, of the payment of a monthly amount (fees), with the objective of remunerating the services of each consultant, within the scope of responsibility attributed to each Advisory Committee. Specifically, for members of CIAEs, the monthly amount may vary according to the time worked in each month. The compensation of the members of the Advisory Committees is defined by the Board of Directors.

Direct and Indirect Benefits. Executives are entitled to a benefits package compatible with market practices, which includes meal vouchers, medical, hospital and dental care, supplementary pensions, and life insurance and use of a car owned by Vale with driver services. The benefits, in addition to being in line with market practices, are intended to support executives and their dependents in key areas, such as healthcare and housing.

For information on the Supplementary Pension Plan (Valia), see item 13.10 of this Reference Form.

Participation in Committees. They are not entitled to direct and / or indirect compensation and benefits for participating in committees.

Variable Compensation, Benefits and Others

They are not entitled to other types of compensations or benefits, including bonuses, profit sharing, compensation for participation in meetings, commissions, profit sharing, compensation for participation in meetings, and commissions, post-employment benefits, benefits motivated by the termination of position, and share-based compensation. The Board members are entitled to life insurance.

STATUTORY OFFICERS (BOARD OF EXECUTIVE OFFICERS)

Fixed Compensation

Base fee. This is the monthly fixed fee, which aims to attract and retain executives with experience and capacity compatible with the scope and responsibility of the position assigned to them in the Company's management. These components are not associated with Vale's performance.

Direct and Indirect Benefits. Executives are entitled to a benefits package compatible with market practices, which includes medical, hospital and dental care, supplementary pension plans and life insurance. The benefits, in addition to being in line with market practices, are intended to support executives and their dependents in key areas, such as healthcare and housing.

For information about the Complementary Pension Plan (Valia), see item 13.10 of the attachment to the Proposal.

Participation in Committees. They are not entitled to compensation for participation in committees.

Variable compensation

Bonus. It is the variable short-term compensation, which remunerates the executive according to the performance achieved in the face of the challenges that have been established for the year. It is calculated based on the results of the Company and the achievement of collective and individual goals, derived from the strategic planning and the annual budget approved by the Board of Directors. The main objective is to stimulate the delivery of strategic priorities, ensure competitiveness with the market, and focus on social and environmental issues, in addition to acknowledging the role of the executive in the Company's performance.

Short-term variable compensation is based on performance goals of different natures, which are an important management tool and have been increasingly relevant to the evolution and implementation of the Company's main strategic plans. It is associated with economic and financial, health and safety, sustainability and strategic goals, in addition to the Company's overall result (measured by cash generation) and the individual performance of each executive (Behavioral Performance Factor - FCD).

- In 2020, short-term compensation, in addition to being aligned with Vale's objective to be a leader in low-carbon mining, included with one of the targets the inclusion of the Risk Management element for all employees and executives of the Company, with 10% weight linked to this initiative;
- The panels of short-term goals, with an impact on the payment of the Annual Bonus, already have Environmental, Social and Governance ("ESG") metrics (both general and specific goals), involving health issues, security, risk management / HIRA (Hazard Identification and Risk Assessment) and low carbon targets related to the reduction of impacts on the climate, energy self-production, reduction in water abstraction, recovery and protection of forests and socioeconomic contributions, among other initiatives;
- For 2021, Vale focuses more on the collective goals, in order to reinforce a more integrated performance among the areas, with the inclusion of Cultural Transformation, Productivity and Management Model (Vale Process System – "VPS") indicators.
- Vale also adjusted the goals of the areas of Health, Safety, Geotechnics, Reparation and Compliance, removing the financial and production results of the panel for more focus and priority to the component of Risk Management, leaving executives and other employees of these areas fully involved in the mission of reducing and mitigating operational risks without suffering the impact of financial results.

Others. They are not entitled to profit sharing, compensation for participation in meetings, and commissions, except for possible extraordinary mechanisms of attraction, retention and/or incentives for relevant deliveries and other initiatives that bring differentiated value to the company, which can generate extraordinary bonuses upon approval by the Board of Directors, on the recommendation of the People, Compensation and Governance Committee, observing the total amount approved at the General Meeting by the Company's shareholders. In this sense, for the fiscal year 2021, the following items are considered: (i) the payment of eventual bonus (in a single installment) for executives who stood out due to their merit in the previous fiscal year, as determined in the performance appraisal; (ii) payment of contractual renewal bonuses for executives, due to changes in contractual clauses that had an impact on compensation; and (iii) payment of signing bonuses for new executives.

Post-Employment Benefits

The Statutory Officers may enjoy Medical-Hospital-Dental Assistance provided by the Company for up to 12 months after their termination, so that they can seek alternatives outside the corporate plan.

Entitlement to benefits after termination of position

The members of the Statutory Board of Executive Officers are not entitled to benefits motivated by the termination of the position, except, however, as described in item 13.12 of this attachment to the Proposal, for any indemnity arising from the termination or non renewal of the employment contract of said Officers with the Company, provided that these events occur at the Company's initiative. For further information, see item 13.12 of this attachment to the Proposal.

Share-based Compensation

Virtual Stock Program ("PAV")

It is one of Vale's long-term variable compensation programs, and directs management efforts to create Vale's sustainable and long-term value, aligning executives' focus to shareholders' vision and encouraging retention and performance. In this program, the compensation is based on units of virtual shares and is linked to the relative performance of the Company vis-à-vis other large mining companies and similar peers and absolute performance through ESG metrics related to the dimensions of health, safety and sustainability, including the action plan to eliminate the main ESG GAPs in relation to the best market practices, which considers issues related to dams, community development, human rights, ethics and corruption, among others.

For more information on the PAV, see item 13.4 of this Annex III to the Proposal.

Matching Program

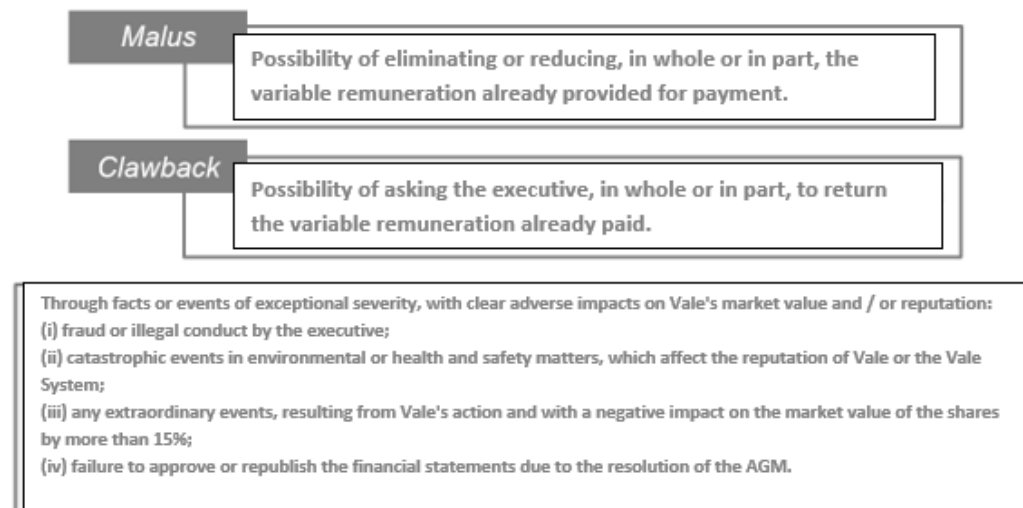
It is one of the long-term variable compensation programs, and the participation therein by the Statutory Officers is mandatory throughout the duration of the cycle, while they continue active in the Company. To comply with the program, they must use their own resources to acquire common shares issued by the Company (through the purchase in the market or the use of shares that the executive already owns, detached from current cycles) and keep them in their possession for at least the three-year cycle, observing the Rule of Stock Ownership Guidelines (SOG), as described in item 13.4 below. After the three years of the cycle, the executives who are still in the Company and own these shares receive the program award, corresponding to at least the same number of shares originally acquired.

For more information on the Matching, see item 13.4 of this Annex III to the Proposal.

Other compensation practices

Malus and Clawback Clauses

In 2019, the Malus rule was implemented and in 2020 the Clawback rule was approved as a complement to Malus for implementation from 2021. The adoption of such rules allows, through facts or events of exceptional gravity, the Board of Directors to decide to eliminate, reduce or even obtain the return, in whole or in part, of the variable compensation provided for payment or installments already paid to executives.



The *Malus and Clawback* rules apply to Vale's Statutory Board of Executive Officers only.

Individual Performance Evaluation

In 2020, the Individual Performance Evaluation process was reformulated, recounting procedural improvements (evaluations being made 100% online and in anonymous format), implementation of a broader concept (360° for CEO and 180° for Executive Officers) and the inclusion of Behavioral Performance Factor (BPF) with direct impact on the Annual Bonus, and can leverage or reduce the amount to be paid for the performance presented in the year. As output of the process, possible individual actions with an impact on the compensation of the Statutory Officers are approved, with due regard for meritocracy and pay for performance.

As developments of the evaluations, in addition to the reducing factor/lever of the Annual Bonus, meritocracy and differentiation actions of executives who present better performance can be implemented, as well as feedback and development actions, if there are executives with lower performance than desired.

Early renewal of terms of office and employment contracts for statutory executives

The Company opted to anticipate the process of election/renewal of terms of office and the execution of contracts with the current Executive Officers, for the 1st quarter of 2021 (replacing the month of May 2021), mainly considering the current context, in which it is essential that Vale remains on the journey of evolution of its Corporate Governance, maintains the stability of its management and business plan and proceeds with the desired cultural transformation for the next five years.














Compensation Distribution

The compensation mix for Statutory Officers is closer to the interests of shareholders and the profile of the international executive market, which has greater focus and relevance in the components of long-term variable compensation.

This adjustment was made through concessions in line with individual performance and is also the result of developments in the annual performance evaluation process for executives.

Based on the compensation elements applicable to the Company's Statutory Executive Officers, as presented in previous items (fixed fees, Bonuses, Matching and PAV), the following compensation distribution considers the achievement of the target performance for short-term and long-term variable compensation²⁰:

²⁰ This is the expected distribution according to the designed model (compensation policy) assuming the achievement of the target performance. Accordingly, the information above does not correspond to the information in the tables presented in items 13.1.b.ii and 13.2 that reflect the results of each fiscal year (disclosed considering the Company's cash disbursement criteria in each year).

	Chief Executive Officer				Other Officers				Rationale
	2018	2019	2020	2021	2018	2019	2020	2021	
Fixed compensation	 25%	 27%	 19%	 12%	 33%	 33%	 31%	 31%	Attract and retain executives with experience and skills consistent with the scope and responsibility of the position
Annual bonus	 32%	 33%	 24%	 20%	 33%	 33%	 31%	 31%	Acknowledge the executive's participation in the year's result, encouraging him to overcome challenges, achieve sustainable results and manage risks effectively.
Long-term incentive	 43%	 40%	 57%	 68%	 34%	 34%	 38%	 38%	Promote long-term retention and commitment of executives, with creation of sustainable value.

NON-STATUTORY BOARD OF EXECUTIVE OFFICERS

They are employees of the Company with employment relationship and may be responsible for global corporate functions or business units, or for regional or local corporate functions, or for areas or operating systems in the Company's various businesses.

Fixed Compensation

Base salary. They are entitled to receive a monthly fixed amount, defined on the basis of the Company structure of positions, which is aligned to the market practices and the purpose of which, according to the employment agreement signed with each executive, is to remunerate the services provided within the scope of responsibility assigned to each one in the different activities of the Company.

Direct and Indirect Benefits. They are entitled to a package of benefits compatible with market practices and includes meal voucher, Medical-Hospital-Dental Care, Complementary Pension (Valia), Life Insurance and use of a car owned by Vale with driver services. The benefits, in addition to being aligned with market practices, are intended to support executives and their dependents on key issues, such as health care and housing.

For more information about the Complementary Pension Plan (Valia), see item 13.10 of this Annex III to the Proposal.

Participation in Committees. They are not entitled to compensation for participation in committees.

Variable compensation

Profit sharing (PLR). They are entitled to the annual variable portion based on the Company's results and defined through objective indicators and targets, derived from the strategic planning and annual budget approved by the Board of Directors. The main purpose of the PLR is to ensure competitiveness with the market and alignment with shareholders' interests, as well as to recognize the executive officer's participation in the Company's performance. This amount is distributed according to the performance measured by the targets assigned to each Director, which are defined based on the cascading of targets for the Statutory Directors. The calculation methodology used to establish the variable compensation of the Non-Statutory Board, as mentioned above, is described in detail in item 13.1 (d) below.

Others. They are not entitled to bonuses, compensation for participation in meetings and commissions.

Post-Employment Benefits

They may benefit from Medical-Hospital-Dental Care borne by the Company after they leave the Company, for a period of six months from projection of prior notice so that they may seek alternatives outside the corporate plan.

Entitlement to benefits after termination of position

They may receive an individual outplacement service (career transition coaching) from the specialized company indicated by Vale.

Share-based Compensation

Virtual Stock Program ("PAV")

It is one of Vale's long-term variable compensation programs, and directs management efforts to create Vale's sustainable and long-term value, aligning executives' focus to shareholders' vision and encouraging retention and performance. In this program, the compensation is based on units of virtual shares and is linked to the relative performance of the Company vis-à-vis other large mining companies and similar peers and absolute performance through ESG metrics related to the dimensions of health, safety and sustainability, including the action plan to eliminate the main ESG GAPs in relation to the best market practices, which considers issues related to dams, community development, human rights, ethics and corruption, among others.

For more information on the PAV, see item 13.4 of this Annex III to the Proposal.

Matching Program

It is one of the long-term variable compensation programs, and the participation therein by the Statutory Officers is mandatory throughout the duration of the cycle, while they continue active in the Company. To comply with the program, they must use their own resources to acquire common shares issued by the

Company (through the purchase in the market or the use of shares that the executive already owns, detached from current cycles) and keep them in their possession for at least the three-year cycle, observing the Rule of Stock Ownership Guidelines ("SOG"), as described in item 13.4 below. After the three years of the cycle, the executives who are still in the Company and own these shares receive the program award, corresponding to at least the same number of shares originally acquired.

The rules and conditions of Matching offered to these stakeholders are the same as those applied to the Statutory Officers, except in relation to: (i) the conditions of obligation of participation and permanence until the end of the cycle, as the program is voluntary for Non-Statutory Officers, and (ii) maintenance of ownership of share, which is not applicable to Non-Statutory Officers.

For more information on the Matching, see item 13.4 of this Annex III to the Proposal.

Additional information

Note that the *Malus and Clawback* rules previously described for the Statutory Board of Executive Officers Board do not apply to Non-Statutory Directors

NON-STATUTORY COMMITTEES

The Company also has six non-statutory committees, namely: (a) Business Risk Executive - Operational, (b) Business Risk Executive Committee - Geotechnical; (c) Business Risk Executive Committee - Strategic, Financial and Cyber; (d) Executive Business Risk Committee - Compliance; (e) Executive Business Risk Committee - Sustainability and Reputation Risks; and (f) the Conduct and Integrity Committee. All positions of non-statutory committees are filled by statutory, non-statutory directors and other Company leaders, who do not receive any additional compensation for this function, either fixed or variable.

ii. In relation to the last 3 fiscal years, what is the proportion of each element in the total compensation

According to the tables below²¹, the proportions of each element in the total compensation for the fiscal years of 2018, 2019, and 2020 were approximately:

²¹ It takes into account the cash disbursements for each period.

Fiscal Year 2018

Compensation breakdown	Board of Directors	Fiscal Council	Statutory Board	Non-Statutory Board ⁽¹⁾	Committees
Monthly Fixed Compensation	-	-	-	-	-
<i>Salary or pro-labore</i>	86.54%	83.33%	12.37%	20.80%	86.65%
<i>Direct and Indirect Benefits</i>	-	-	4.24%	5.49%	-
<i>Participation in committees</i>	-	-	-	-	-
<i>Other ⁽²⁾</i>	13.46%	16.67%	2.60%	5.26%	13.35%
Variable compensation	-	-	-	-	-
<i>Bonus</i>	-	-	18.81%	-	-
<i>Profit sharing</i>	-	-	-	32.76%	-
<i>Participation in Meetings</i>	-	-	-	-	-
<i>Commissions</i>	-	-	-	-	-
<i>Other ⁽²⁾</i>	-	-	9.02%	6.55%	-
Post-Employment Benefits	-	-	-	-	-
Termination of position	-	-	41.15%	-	-
Share-based Compensation	-	-	11.81%	29.14%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%

⁽¹⁾ Amounts related to the termination of office have not been considered in the Non-Statutory Board.

⁽²⁾ Payments related to payroll charges under responsibility of VALE - INSS

Fiscal Year 2019

Compensation breakdown	Board of Directors	Fiscal Council	Statutory Board	Non-Statutory Board ⁽¹⁾	Committees
Monthly Fixed Compensation	-	-	-	-	-

Compensation breakdown	Board of Directors	Fiscal Council	Statutory Board	Non-Statutory Board ⁽¹⁾	Committees
<i>Salary or pro-labore</i>	72.18%	83.33%	29.17%	39.86%	86.26%
<i>Direct and Indirect Benefits</i>	-	-	9.52%	8.94%	-
<i>Participation in committees</i>	12.06%	-	-	-	-
<i>Other ⁽²⁾</i>	15.76%	16.67%	5.74%	9.76%	13.74%
Variable compensation	-	-	-	-	-
<i>Bonus</i>	-	-	0.00%	-	-
<i>Profit sharing</i>	-	-	-	0.00%	-
<i>Participation in Meetings</i>	-	-	-	-	-
<i>Commissions</i>	-	-	-	-	-
<i>Other ⁽²⁾</i>	-	-	4.55%	0.00%	-
Post-Employment Benefits	-	-	-	-	-
Termination of position	-	-	20.96%	-	-
Share-based Compensation	-	-	30.06%	41.44%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%

⁽¹⁾ Amounts related to the termination of office have not been considered in the Non-Statutory Board.

⁽²⁾ Payments related to payroll charges under responsibility of VALE - INSS

Fiscal Year 2020

Compensation breakdown	Board of Directors	Fiscal Council	Statutory Board	Non-Statutory Board ⁽¹⁾	Committees
Monthly Fixed Compensation	-	-	-	-	-
<i>Salary or pro-labore</i>	65.53%	83.33%	13.54%	26.01%	86.61%
<i>Direct and Indirect Benefits</i>	-	-	4.07%	8.77%	-

Compensation breakdown	Board of Directors	Fiscal Council	Statutory Board	Non-Statutory Board ⁽¹⁾	Committees
<i>Participation in committees</i>	18.60%	-	-	-	-
<i>Other ⁽²⁾</i>	15.87%	16.67%	2.71%	6.96%	13.39%
Variable compensation	-	-	-	-	-
<i>Bonus</i>	-	-	22.14%	-	-
<i>Profit sharing</i>	-	-	-	21.47%	-
<i>Participation in Meetings</i>	-	-	-	-	-
<i>Commissions</i>	-	-	-	-	-
<i>Other ⁽²⁾</i>	-	-	5.87%	4.29%	-
Post-Employment Benefits	-	-	-	-	-
Termination of position	-	-	23.86%	-	-
Share-based Compensation	-	-	27.80%	32.50%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%

⁽¹⁾ Amounts related to the termination of office have not been considered in the Non-Statutory Board.

⁽²⁾ Payments related to payroll charges under responsibility of VALE - INSS and other types of bonuses paid.

iii. Methodology for calculation and adjustment of each element of compensation

The annual global amount of the compensation of the members of the Board of Directors, the Statutory Board of Executive Officers, the Fiscal Council and the members of the Advisory Committees is fixed at the Annual Shareholders' Meeting and distributed by the Board of Directors, with the recommendation of the People, Compensation and Governance Committee.

Board of Directors

The definition of values that make up the fees for full members and alternates occurs annually in accordance with market practice, verified by reference surveys conducted by specialized companies, in which the behavior of the compensation for companies of similar size is observed. Full members receive every month

the fixed portion of the compensation, while alternates receive the fixed portion of the compensation when there is participation in a meeting of the Board of Directors, replacing the full member.

Fiscal Council

The amounts that make up the fees for full members have as reference the value of 10% (ten percent) of the fixed compensation that, on average, is attributed to Statutory Officers (not counting the benefits, representation budgets, profit sharing or any other payment or award that may be part of the compensation package of those stakeholders). The members of the Fiscal Council are also entitled to reimbursement of travel and per diem expenses necessary for the performance of their duties. Alternate members shall only be remunerated in cases in which they exercise their activities due to vacancy, impediment or absence of the respective full member.

Advisory Committees

The fixed monthly compensation (fees) is defined based on market practice, verified through the performance of referential surveys conducted by specialized companies, in which the behavior of compensation for companies of similar size is observed. Until 2019, fees were readjusted annually by the Broad National Consumer Price Index – IPCA. As of 2020, this portion came to be evaluated along with the other elements of executive compensation, by the People, Compensation and Governance Committee (with subsequent assessment by the Board of Directors), and adjusted as necessary, having as based on the references of the international executive market.

Statutory Officers (Executives)

The fixed fees are determined from market practice, verified by reference surveys conducted by specialized companies, in which the behavior of the compensation for companies of similar size is observed. Until 2019, fees were readjusted annually by the Broad National Consumer Price Index – IPCA. As of 2020, this portion came to be evaluated along with the other elements of executive compensation, by the People, Compensation and Governance Committee (with subsequent assessment by the Board of Directors), and adjusted as necessary, having as based on the references of the international executive market.

The direct and indirect benefits to which they are entitled are calculated according to market practice, verified by reference surveys conducted by specialized companies, in which the behavior of granting benefits to companies of similar size is observed, as well as evaluated by the People, Compensation and Governance Committee and approved by the Board of Directors.

The bonus component is calculated based on the Company's results, and may vary between 0% and 200% of the target established with reference to the market, depending on the goals established (collective and/or individual), the individual performance (FCD) and cash generation of the Company for each fiscal year, as described in item 13.1 (d) below.

The components of share-based compensation (PAV and Matching) are defined based on a multiple of the monthly fixed portion specific to the level that the executive occupies and the location in which he/she operates in the Company:

- (i) The PAV uses the average price of the common shares issued by the Company in the last 60 trading sessions of the previous reporting period for the calculation of the virtual shares granted, and makes payments conditional on Vale's performance in the ranking of peer companies, as measured by Vale's cumulative TSRs and of companies in the period, however, for cycles starting from 2020, such payments will still have the impact of ESG metrics.
- (ii) Matching uses the average purchase price of the common shares issued by the Company, at the time the cycle is granted, using the own funds of the executives who choose to purchase the shares.

For more information regarding the method of calculating share-based compensation, see item 13.4 of this Annex III to the Proposal.

All components of the compensation package of the Statutory Board of Executive Officers, as well as the methodologies for adjustment of amounts are evaluated by the People, Compensation and Governance Committee and approved by the Board of Directors.

Non-Statutory Board of Executive Officers

The fixed compensation of Officers, with employment relationship, is represented by the payment of monthly fixed amounts. Every year, Vale's Human Resources department acquires compensation surveys conducted by specialized companies in order to evaluate the competitiveness of the Company's compensation against its competitive market for labor. The comparison is made with national and multinational companies from different sectors, and the equalization of the comparison takes place through a scoring system. This system is based on points assessment system, which is used by world-class companies and assesses the weight of positions based on their complexity, allowing the global ranking of positions.

There is no predefined percentage or frequency for fixed salary readjustment, and when wage revisions occur, they are based on the market movement and the performance of the Non-Statutory Director (meritocracy).

The direct and indirect benefits to which they are entitled are defined in accordance with market practice, verified by reference surveys carried out by specialized companies, which observe the behavior of granting benefits to companies of different segments or of similar size.

The profit-sharing (PLR) component is calculated based on the Company's results, ranging from 0% to 200% of the market-established target, depending on the targets set and company cash generation for each year. The readjustment of the fixed compensation resulting from the IPCA or other forms of merit reflects directly in the other elements of the compensation, since they use as a basis the fixed compensation.

Share-based compensation (PAV and Matching) has the same methodology of calculations and as previously described in the item above regarding the Statutory Officers (Executives) and item 13.4 of this Annex III to the Proposal.

iv. Reasons justifying the composition of the compensation

The reasons for the composition of the compensation are the incentive to maximize shareholders' returns, improve management, enhance performance, and retain the Company's executives, aiming at gains through the commitment to the Company's short-term performance and long-term results, in particular the appreciation of common shares, the performance of the relative TSR (which measures Vale's position in relation to peer companies) and the achievement of

ESG commitments. In relation to the executive officers, Vale adopts a compensation composition model that concentrates a significant portion of the total compensation in the variable components (both short and long term), being part of the policy of sharing risks and results with the main executives of the Company.

v. Existence of members not remunerated by the issuer and the reason therefor

As of the date of this Proposal, the Company does not have unpaid members, except for the members of the Non-Statutory Committees, who are not remunerated for the exercise of this function, since they already receive compensation as executive officers or employees of the Company.

For purposes of determining the total amount of the annual compensation for the current reporting period, the amounts owed to all members of the Board of Directors shall be taken into account, since in the future there may be no possibility of waiver of compensation.

c. Main performance indicators that are taken into account in determining each element of compensation:

All definitions in relation to compensation are supported by market studies, with input from one or more specialized consultancies. With respect to the Statutory Officers, these definitions are also evaluated by the People, Compensation and Governance Committee and approved by the Board of Directors.

The main performance indicators taken into account in determining the compensation are those related to the Company's performance, such as measures for cash generation and relative TSR (that measures Vale positioning as compared to peer companies), and general goals of productivity, sustainability, risk management, among others. It is worth highlighting that in 2020 the indicators related to the ESG theme were implemented as parameters for the definition of compensation within the short and long term variable compensation programs.

For more information, see items 13.1 (b) and 13.4 of this Annex III to the Proposal.

d. How compensation is structured to reflect the evolution of performance indicators

The definition of targets of executives' performance and commitment to safety and sustainability and those related to ESG themes for structuring the payment of short-term variable compensation is derived from the strategic planning and budget approved by the Board of Directors, and reviewed each year to support the goals and expected results for the Company.

The performance indicators taken into account in determining the compensation derived from the share-based compensation plan are the quotation of the Company's shares in the market and, specifically for the PAV, the Company's ranking among a group of other companies with characteristics similar to those of Vale (peer group) and ESG metrics (these from 2020).

e. How the compensation policy or practice is aligned with the interests of the issuer of the short, medium and long term

The Company's compensation practice is based on its performance and financial sustainability, in accordance with the strategic planning established for the medium and long term, and in line with the return to shareholders.

To that end, the PAV and Matching were defined with grace periods for payment of the compensation, which deadlines are described in item 13.4 and established so that such programs are in line with the evolution of the Company's own performance indicators.

f. Existence of compensation supported by subsidiaries, controlled companies or direct or indirect controllers

At the date of this Reference Form, there is no estimated compensation of the Company Management for fiscal year 2021 that may be supported by subsidiaries, direct or indirect parent companies, by virtue of the positions held by them in the Company.

g. Existence of any compensation or benefit linked to the occurrence of a particular corporate event, such as disposal of the controlling interest of the issuer

At the date of this Annex III to the Proposal, there is no provision for compensation or benefit in the Company linked to the occurrence of a certain corporate event.

However, it should be noted that there may occur any awards, bonuses or other payments or compensation increments approved by the Company's Board of Directors, in line with the performance presented by the executives, and future challenges, and with the Compensation Policy of the Executive Board, may be paid to the members of the Executive Board.

h. Practices and procedures adopted by the Board of Directors to define the individual compensation of the Board of Directors and board of executive officers, indicating:

i. The issuer's bodies and committees that participate in the decision-making process, identifying how they participate

The People, Compensation and Governance Committee, which advises Vale's Board of Directors, participates in the decision-making process and is responsible for evaluating all the definitions regarding the compensation of the Statutory Officers. After a technical evaluation of the market surveys received, the committee prepares a compensation proposal that is sent for analysis by the Board of Directors and, next, to the Meeting, as established in the Company's Bylaws.

In addition, as explained above, we clarify that the Company's Board of Executive Officers is not responsible for approving its compensation, nor is it responsible for determining targets and parameters for purposes of determining its variable compensation.

ii. Criteria and methodology used to determine the individual compensation, indicating whether studies are used to verify market practices and, if so, the criteria for comparison and the scope of these studies

In relation to the methodology used to determine the individual compensation of the managers, the Company uses studies to verify market practices, with the support of one or more specialized consultants, in which the behavior of benefits for companies of similar size.

It should be noted that the market is always the benchmark, within a global competition perspective, and Vale considers, for purposes of determining the compensation of its management, the compensation policies and practices adopted by the top mining companies, as well as other large global companies from other industries.

iii. How often and in which way the board of directors assesses the adequacy of the issuer's compensation policy

The Board of Directors evaluates on an annual basis the suitability of the methodology, practices and procedures used to define the individual compensation of directors.

13.2 - Total compensation per body recognized in the result of the last 3 fiscal years and the one foreseen for the current fiscal year of the board of directors, statutory board and fiscal council

Total compensation forecast for the current year Dec 31, 2021 - Annual Values				
	Board of Directors	Statutory Board	Fiscal Council	Total
Total number of members	14.00	9.48	5.00	28.48
No. of members receiving compensation	14.00	9.48	5.00	28.48
Annual Fixed compensation				
Salary or pro-labore	12.820.853,02	28.845.735,84	1.521.399,60	43.187.988,46
Direct and indirect benefits	0.00	6.868.003,57	0.00	6,868,003.57
Participation in committees	3.658.666,36	0.00	0.00	3.658.666,36
Others	0.00	0.00	0.00	0.00
Description of other fixed compensations	-	-	-	
Variable compensation				
Bonus	0.00	41.700.178,57	0.00	41,700,178.57
Profit sharing	0.00	0.00	0.00	0.00
Participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Others	0.00	15.865.177,75	0.00	15.865.177,75
Description of other variable compensations		Other types of bonus		
Post-employment	0.00	0.00	0.00	0.00
Termination of position	0.00	17.945.243,99	0.00	17,945,243.99
Share-based, including options	0.00	66.141.791,20	0.00	66,141,791.20
Notes:	1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21. The "Total number of members" field covers the full members and the alternate members of the Board of Directors.	1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21. 2. Other types of bonuses include: (i) the payment of eventual bonus (in a single installment) for executives who stood out due to	1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21. 2. The full members (5 members) of the Fiscal Council are considered.	

	2. The compensation for participation in Committees includes the participation of sitting members only.	their merit in the previous fiscal year, as determined in the performance appraisal; (ii) payment of contractual renewal bonuses for executives, due to changes in contractual clauses that had an impact on compensation; and (iii) payment of signing bonuses for new executives.		
		3. The "Termination of Office" field covers severance payments made to Executive Officers who have left the company in 2019 and 2020.		
Total compensation	16.479.519,38	177.366.130,92	1.521.399,60	195.367.049,90

Compensation in the Fiscal year ending 31 December 2020 – Annual Amounts				
	Board of Directors	Statutory Board	Fiscal Council	Total
Total number of members	13.25	6.35	4.75	24.35
No. of members receiving compensation	13.25	6.35	4.75	24.35
Annual Fixed compensation				
Salary or pro-labore	9.541.887,60	22.404.890,44	1.680.907,88	33,627,685.92
Direct and indirect benefits	0.00	6.730.673,70	0.00	6,730,673.70
Participation in committees	2.707.977,62	0.00	0.00	2,707,977.62
Others	2.310.506,52	4.480.978,09	336.181,58	7,127,666.19
Description of other fixed compensations	INSS on fixed fees	INSS on fixed fees	INSS on fixed fees	
Variable compensation				
Bonus	0.00	36.629.008,34	0.00	36,629,008.34
Profit sharing	0.00	0.00	0.00	0.00
Participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00

Others	0.00	9.709.809,10	0.00	9,709,809.10
Description of other variable compensations		Other charges paid on compensation		
Post-employment	0.00	0.00	0.00	0.00
Termination of position	0.00	39.473.868,92	0.00	39,473,868.92
Share-based, including options	0.00	45.992.204,06	0.00	45,992,204.06
Notes:	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21. The "Total number of members" field covers the full members and the alternate members of the Board of Directors.</p> <p>2. The compensation for participation in Committees includes the participation of sitting members only.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. It includes the Bonus that was due for payment in 2019 (which was suspended due to the accident), in addition to the Bonus due for payment in 2020.</p> <p>3. Severance payments made to Executive Officers who have left the company in 2018, 2019 and 2020.</p> <p>4. It includes the Matching that was due for payment in 2019 (which was suspended due to the accident), in addition to the Matching and PAV due for payment in 2020.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. The full members (5 members) of the Fiscal Council are considered.</p>	
Total compensation	14,560,371.74	165,421,432.65	2,017,089.46	181,998,893.85

Compensation in the Fiscal Year ending December 31, 2019 – Annual Amounts				
	Board of Directors	Statutory Board	Fiscal Council	Total
Total number of members	12.92	6.91	5.00	24.83
No. of members receiving compensation	12.92	6.91	5.00	24.83
Annual Fixed compensation				
Salary or pro-labore	7.142.459,33	24,913,435.61	1,833,960.00	33,889,854.94

Direct and indirect beneficts	0.00	8,130,545.72	0.00	8,130,545.72
Participation in committees	1.194.000,00	0.00	0.00	1,194,000.00
Others	1.559.291,87	4,898,186.06	366,792.00	6,824,269.93
Description of other fixed compensations	INSS on fixed fees	INSS on fixed fees	INSS on fixed fees	
Variable compensation				
Bonus	0.00	0.00	0.00	0.00
Profit sharing	0.00	0.00	0.00	0.00
Participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Others	0.00	3,885,703.39	0.00	3,885,703.39
Description of other variable compensations		Hiring bonus and INSS on variable compensation and termination of position		
Post-employment	0.00	0.00	0.00	0.00
Termination of position	0.00	17,899,948.43	0.00	17,899,948.43
Share-based, including options	0.00	25,676,497.21	0.00	25,676,497.21

<p>Notes:</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>1. It considers the full members (12 members between January and April, 13 members between May and November and 11 members in December) and the alternate members (5 months with alternate member participation in the year) remunerated for participating in the Board of Directors' meetings.</p> <p>2. The compensation for participation in Committees includes the participation of sitting members only.</p> <p>3. Payment referring to PAV was made in January, 2019 before the Brumadinho dam collapse. The other variable compensations that should have been paid this year were suspended due to the dam collapse.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. Share-based Compensation: values referring to PAV due for payment in 2019⁽¹⁾. There was no payment for the Matching (suspended).</p> <p>3. Bonus: There was no payment for the Bonus (suspended).</p> <p>4. Termination of position: severance payments made to executive officers who left the company in 2017, 2018 and 2019.</p> <p>5. Payment referring to PAV was made in January, 2019 before the Brumadinho dam collapse. The other variable compensations that should have been paid this year were suspended due to the dam collapse.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. The full members (5 members) of the Fiscal Council are considered.</p> <p>3. Payment referring to PAV was made in January, 2019 before the Brumadinho dam collapse. The other variable compensations that should have been paid this year were suspended due to the dam collapse.</p>	
<p>Total compensation</p>	<p>9,895,751.20</p>	<p>85,404,316.42</p>	<p>2,200,752.00</p>	<p>97,500,819.62</p>

Compensation in the Fiscal year ending December 31, 2018 – Annual Values				
	Board of Directors	Statutory Board	Fiscal Council	Total
Total number of members	12.08	6.00	5.00	23.08
No. of members receiving compensation	12.08	6.00	5.00	23.08
Annual Fixed compensation				
Salary or pro-labore	6,608,146.89	20,543,646.36	1,705,551.75	28,857,345.00
Direct and indirect benefits	0.00	7,050,290.66	0.00	7,050,290.66
Participation in committees	0.00	0.00	0.00	0.00
Others	1,028,229.38	4,317,265.39	341,110.35	5,686,605.12
Description of other fixed compensations	Payroll costs under Vale's responsibility - INSS	Payroll costs under Vale's responsibility - INSS	Payroll costs under Vale's responsibility - INSS	
Variable compensation				
Bonus	0.00	31,237,934.71	0.00	31,237,934.71
Profit sharing	0.00	0.00	0.00	0.00
Participation in meetings	0.00	0.00	0.00	0.00
Commissions	0.00	0.00	0.00	0.00
Others	0.00	14,983,080.22	0.00	14,983,080.22
Description of other variable compensations		Payroll costs under Vale's responsibility - INSS		
Post-employment	0.00	0.00	0.00	0.00
Termination of position	0.00	68,346,721.83	0.00	68,346,721.83
Share-based, including options	0.00	19,622,073.35	0.00	19,622,073.35

Notes:	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. The full members (12 members) and the alternate members (2 participations of alternate member were necessary in the year) are considered.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21.</p> <p>2. Share-based compensation: amounts referring to the PAV (cycles 2014, 2015 and 2016) and Matching (cycle 2015).</p> <p>3. Bonus: amounts referring to the results and targets for the 2017 reporting period.</p> <p>4. Termination of position: severance payments made to executive officers who left the company in 2016, 2017 and 2018.</p>	<p>1. The total number of members was established according to Official Circular Letter CVM/SEP 01/21. The full members (5 members) of the Fiscal Council are considered.</p>	
Total compensation	7,636,376.27	166,101,012.52	2,046,662.10	175,784,050.89

13.3 - Variable compensation related to the past three fiscal years and expected compensation forecast for the current fiscal year of the board of directors, statutory board and fiscal council:

Variable compensation forecast for the current fiscal year (2021)

Item / Year	Board of Directors	Statutory Board	Fiscal Council	Total
Total number of members ⁽¹⁾	14.00	9.48	5.00	28.48
No. of members receiving compensation⁽²⁾	0.00	9.48	0.00	9.48
Bonus⁽³⁾				
Minimum Amount Forecast in the Compensation Plan	0.00	0.00	0.00	0.00

Maximum Amount Forecast in the compensation plan ⁽⁴⁾	0.00	51.898.335,48	0.00	51,898,335.48
Amount Estimated in the compensation plan, if the targets are met ("Target") ⁽⁵⁾	0.00	25.949.167,74	0.00	25,949,167.74
Profit sharing				
Minimum Amount Forecast in the Compensation Plan	-	-	-	-
Maximum Amount Forecast in the compensation plan	-	-	-	-
Amount Forecast in the compensation plan, if the targets are met	-	-	-	-

(1) Estimate of the annual average of the number of members of said body verified monthly pursuant to item 13.2.

(2) Estimated number of officers and directors, as applicable, who are expected to be assigned variable compensation recognized in the issuer's income for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

(3) It only considers installments referring to short-term variable compensation plan. It does not consider other bonuses that can be recognized in the year.

(4) Value corresponding to 200% of the target established with reference to the market, considering the statutory members eligible to the bonus in 2021, according to the panel of targets and other 2020 results.

(5) Value corresponding to the target established with reference to the market, considering the statutory members eligible to the bonus in 2021, according to the panel of target and other 2020 results.

Variable compensation - Fiscal Year ended on Dec 31, 2020

Item / Year	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Total number of members ⁽¹⁾	13.25	6.35	4.75	24.35
Number of members receiving compensation ⁽²⁾	0.00	6.35	0.00	6.35
Bonus ⁽³⁾				
Minimum Amount Anticipated in the Compensation Plan	0.00	0.00	0.00	0.00
Maximum Amount Anticipated in the Compensation Plan ⁽⁴⁾	0.00	42,667,926.48	0.00	42,667,926.48
Amount Anticipated in the compensation plan if targets are met ⁽⁵⁾	0.00	21,333,963.24	0.00	21,333,963.24
Value effectively recognized in the result of the fiscal year ⁽⁶⁾	0.00	19,048,646.32	0.00	19,048,646.32
Profit Sharing				
Minimum Amount Anticipated in the Compensation Plan	-	-	-	-
Maximum Amount Anticipated in the Compensation Plan	-	-	-	-
Amount Anticipated in the compensation plan, if targets are met	-	-	-	-
Amount effectively recognized in the results for the fiscal year	-	-	-	-

(1) Annual average of the number of members of said body verified monthly pursuant to item 13.2.

(2) Number of officers and board directors, as applicable, who were assigned variable compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

(3) Considers only the portions of the short-term variable compensation plan. It does not consider other bonuses that have been recognized in the year.

(4) Value corresponding to 200% of the target established with reference to the market, considering the statutory members eligible to the bonus in 2020, according to the panel of targets and other 2019 results.

(5) Value corresponding to the target established with reference to the market, considering the statutory members eligible to the bonus in 2020, according to the panel of target and other 2019 results.

(6) Refers to the annual bonus program, linked to the results and targets of the 2019 fiscal year, paid in 2020. This amount does not consider the bonus paid in 2020 linked to the 2018 fiscal year, whose payment was suspended in 2019 due to the accident (the amount was R\$ 17.580.362,02).

Variable compensation - Fiscal Year ended on Dec 31, 2019

Item / Year	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Total number of members ⁽¹⁾	12.92	6.91	5.00	24.83
Number of members receiving compensation ⁽²⁾	0.00	6.91	0.00	6.91
Bonus ⁽³⁾				
Minimum Amount Anticipated in the Compensation Plan	-	0.00	-	0.00
Maximum Amount Anticipated in the Compensation Plan ⁽⁴⁾	-	35,760,234.48	-	35,760,234.48
Amount Anticipated in the compensation plan if targets are met ⁽⁵⁾	-	17,880,117.24	-	17,880,117.24
Value effectively recognized in the results of the fiscal year ⁽⁶⁾	-	0.00	-	0.00
Profit Sharing				
Minimum Amount Anticipated in the Compensation Plan	-	-	-	-
Maximum Amount Anticipated in the Compensation Plan	-	-	-	-
Amount Anticipated in the compensation plan, if targets are met	-	-	-	-
Amount effectively recognized in the results for the fiscal year	-	-	-	-

(1) Annual average of the number of members of said body verified monthly pursuant to item 13.2.

(2) Number of officers and board directors, as applicable, who were assigned variable compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

(3) Considers only the portions of the short-term variable compensation plan. Does not consider other bonuses that have been recognized in the fiscal year.

(4) Value corresponding to 200% of the target established with reference to the market, considering the members who occupied the Board of Executive Officers in 2018.

(5) Value corresponding to the target established with reference to the market, considering the members who occupied the Board of Executive Officers in 2018.

(6) Value effectively recognized in the fiscal year, regarding the annual bonus program, linked to the results and targets for the 2018 fiscal year. This amount was suspended due to the Brumadinho dam breach, and, accordingly, there was no payment in 2019.

Variable compensation - Fiscal Year ended on Dec 31, 2018

Item / Year	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Total number of members ⁽¹⁾	12.08	6.00	5.00	23.08
Number of members receiving compensation ⁽²⁾	0.00	6.00	0.00	6.00

Bonus⁽³⁾				
Minimum Amount Anticipated in the Compensation Plan	-	-	-	-
Maximum Amount Anticipated in the Compensation Plan ⁽⁴⁾	-	27,310,672.64	-	27,310,672.64
Amount Anticipated in the compensation plan if targets are met ⁽⁵⁾	-	13,655,336.32	-	13,655,336.32
Value effectively recognized in the results of the fiscal year ⁽⁶⁾	-	27,161,721.49	-	27,161,721.49
Profit Sharing				
Minimum Amount Anticipated in the Compensation Plan	-	-	-	-
Maximum Amount Anticipated in the Compensation Plan	-	-	-	-
Amount Anticipated in the compensation plan, if targets are met	-	-	-	-
Amount effectively recognized in the results for the fiscal year	-	-	-	-

(1) Annual average of the number of members of said body verified monthly pursuant to item 13.2.

(2) Number of officers and board directors, as applicable, who were assigned variable compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

(3) Considers only the portions of the short-term variable compensation plan. Does not consider other bonuses that have been recognized in the fiscal year.

(4) Amount corresponding to 200% of the target established with reference to the market, and considering the members that were part of the Board of Executive Officers throughout 2017.

(5) Amount corresponding to 100% of the target established with reference to the market, and considering the members that were part of the Board of Executive Officers throughout 2017.

(6) Refers to the amount effectively recognized, regarding the annual bonus program, linked to the results and targets of the 2017 reporting period.

13.4 - Regarding the share-based compensation of the Board of Directors and Board of Statutory Executive Officers, in force in the last fiscal year and anticipated for the current fiscal year, report:

The Company has two share-based compensation plans for the Board of Statutory and Non-Statutory (Matching and PAV) Executive Officers, which are not extended to the members of the Board of Directors. None of the plans contemplates the granting of stock options of the Company, rather only the payment of bonuses, referenced to the market quotation of the Company's shares.

a. General Terms and Conditions

Virtual Stock Program ("PAV")

This is a long-term compensation incentive, linked to the Company's performance, for the Company's Statutory Officers (Board of Executive Officers) and non-Statutory Officers.

In this program the compensation is based on units of virtual shares and is linked to the Company's relative performance against other large mining companies and similar peers (80%) and to the absolute performance regarding ESG metrics (20%), related to the health, safety and sustentability dimensions, including the action plan for the elimination of the main ESG gaps in relation to the best industry practices, that takes into consideration issues related to dams, development of communities, human rights, ethics and corruption, among others.

For the purposes of calculating the number of virtual shares to be granted to each executive, the following parameters are used: (i) the historical price of shares issued by Vale in the last 60 trading sessions of the year preceding the beginning of the cycle, weighted by the volume of shares traded, (ii) the executive's compensation at the end of the year preceding the beginning of the cycle, and (iii) the PAV reference value, that varies depending on the level and location of the participant.

From 2014 to 2018 (including), the PAV lasted 4 years and made gradual payments over the cycle life. As of 2019, the PAV cycles have 3 years of duration with full reward.

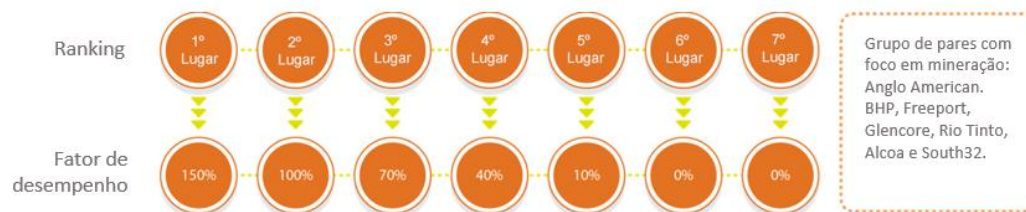
The PAV, until the 2020 reward, was paid in cash at the end of the 3-year cycle. As approved in the Annual Shareholders' Meeting, as of the 2021 grant, the Virtual Stock Program/PAV will be modified as below:

- (i) it will be paid in shares issued by the Company (“Real Stock”) (and not in cash anymore), and
- (ii) an additional payment (virtual dividends) at the end of the cycle, based on (a) the value to be paid per share in the distribution of dividends or interests on equity by Vale to its shareholders during the duration of the cycle, and (b) the number of shares initially granted to the officers multiplied according to the program final performance factor. Such adjustments strengthen the ownership feeling and the engaging of the officers, besides aligning their actions to the shareholders’ interest.

The PAV payment metrics consist of:

- 1- Total Shareholder Return (80% weight)** - TSR in relation to a group of peer companies, taking into account the businesses and regions where Vale operates and the influence of fluctuations in the Brazilian market.

If Vale is ranked first among the companies (P100 percentile), the amount of compensation is increased by 50% (150% performance factor); if Vale is in P25 (first quartile) or below, there is no payment (zero performance factor); and for Vale's interim positions in the ranking (between P25 and P100), it is paid according to its performance, whose factor can vary between 10% and 150%, as follows:

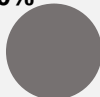




- 2 - ESG metrics (20% weight)** - ESG metrics are associated with health, safety and sustainability, having been included as of the 2020 cycle (with payment to be made in 2023), further reinforcing Vale's concern with such issues and demonstrating the Company's commitment and focus on long-term sustainable development and excellence in issues related to ESG practices.
 - 2.1 Health and safety metrics (10% weight) aim to promote the effective management of high potential recordable accidents and injuries, considering fatalities or changed lives, enabling Vale to deal with risks more efficiently, in addition to monitoring the actual frequency and severity of accidents. This marks a critical shift in the focus of the indicators, moving from a reactive to a proactive approach.
 - 2.2 The Sustainability metrics (10% weight) is based on Vale's 2030 commitments, which cover: (a) reduction of greenhouse gas emissions in accordance with the Paris Agreement; (b) 100% global self-production of clean energy; (c) 10% reduction in new water uptake; (d) recover and

protect 500,000 ha of degraded land beyond Vale's limits; (e) socioeconomic contribution to health, education and income generation, and (f) elimination of the main ESG gaps in relation to best practices.

The inclusion of 20% of ESG indicators to the program performance metrics is more aggressive than the benchmarking made with Vale's peers, which have, on average, 10% of these indicators as a metrics for long-term incentives.

See below a table summarizing the paragraphs above.

VIRTUAL STOCK PLAN		DESCRIPTION OF INDICATORS USED FOR GRANTS	
	UNTIL 2019	2020+	
TSR	100% 	80% 	Vale's Total Shareholder Return (TSR), compared to a pre-selected peer group.
ESG INDICATORS (ENVIRONMENTAL, SOCIAL AND GOVERNANCE)	-	20% 	Health and safety (10%) and sustainability indicators based on Vale's 2030 commitments (10%).
PAYMENT CONDITIONS (TRIGGER)	If Vale is below the 5 th position in the TSR ranking, there will be no payments related to the program.		

See below the history of results in the latest PAV payments:

History of results in the latest VSP payments			Year of payment (January)		
			2019	2020	2021
VALE3 Price			54.28	49.73	71.72
Average of the last 60 trading sessions of the year prior to payment					
TSR metric	Position in raking	2018 Cycle	Not applicable	7 th place	3 rd place
		2017 Cycle	2 nd place	3 rd place	5 th place
		2016 Cycle	4 th place	4 th place	Not applicable
		2015 Cycle	1 st place	Not applicable	Not applicable
	Performance factor	2018 Cycle	Not applicable	40%	70%
		2017 Cycle	125%	100%	100%
		2016 Cycle	85%	85%	Not applicable
		2015 Cycle	150%	Not applicable	Not applicable

Matching

This is a long-term payment incentive, based on the Company's expected performance, which is reflected in its market value and share price, for the Company's Statutory (Board of Executive Directors) and Non-Statutory Officers.

The participation of the Statutory Officers is mandatory during the full duration of the cycle while they remain active in the Company. To comply with the program, they must use their own resources to acquire common shares issued by the Company (through purchases in the market or the use of shares already owned by the officer, detached from current cycles) and keep them in their possession for at least the three-year cycle, observing the Stock Ownership Guidelines ("SOG"). After the three years of the cycle, the officers who are still in the Company and own these shares receive the program reward, which is at least the same number of shares originally acquired. The participation of Non-Statutory Officers is voluntary.

The calculation base for the program is mainly the officer's base compensation and the price of the share at the moment of the concession of the cycle. For the purpose of rewarding at the end of the cycle, the Company makes the payment of at least the same number of shares initially granted, plus the amount related to the Withholding Tax.

For specific years where the net Annual Bonus effectively paid is not enough for the officer to participate in the Matching program, the obligation of participation is limited to 50% of the net Bonus effectively paid.

Furthermore, as of 2019, a requirement under the SOG Matching program was implemented for the Executive Officers, where they will retain the ownership of the shares issued by Vale in the amount equivalent to at least 36 (thirty-six) times the value of the fixed monthly payment to the CEO and 24 (twenty-four) times the value of the fixed monthly payment the other Executive Officers. Officers may reach this level of participation over their terms, and cannot trade the shares before the minimum value is reached. This obligation does not apply to Non-Statutory Officers.

As of 2016 (including), the plan allows participation using shares already held ("Free Stock"), as long as they are not linked to other Matching cycles that are not yet closed. After 3 years, the officers that are still in the Company and still keep such shares in their possession, receive a reward equivalent to the net amount in Vale's shares, plus the Withholding Tax. As of the 2019 grants, participants will be entitled to receive the net amount equivalent to dividends (or interests on shareholders' equity) on shares not yet rewarded by the Company, whenever there is distribution to its shareholders.

As of the 2019 grants, besides the program rewards, have the right to receive the net value equivalent to the dividends or interests on equity of the shares not yet liquidated, during the cycle and at any moment when Vale makes distribution to its shareholders.

b. Main Objectives of the Plan

The main objectives of share-based compensation plans are: to focus management efforts on creating value and wealth for Vale, to align officers and shareholders interests, to strengthen a sustainable performance culture, to serve as a lever for retaining executives and to encourage the "feeling of ownership".

c. How the plan contributes to these objectives

The share-based compensation plans align the interests of the stockholders and the Statutory and Non-Statutory Officers insofar as they ensure that there are only gains for the officers when there are gains for the Company.

d. How the plan fits into the issuer's compensation policy

The share-based compensation plans are part of Vale's compensation policy as they are responsible for the long-term alignment of officers with the interests of the Company and its shareholders, contributing to the sustainability and maintenance of a level of competitiveness appropriate to the Company's businesses and to the retention of qualified professionals. They are designed with the support of a specialized consultancy and take into account the movements of the national and international market.

e. How the plan aligns the interests of managers and issuer in the short, medium and long term

The design of the share-based plans incorporates the Company's performance factor, the variation of its shares over the three-year or four-year period and, still, in the case of the PAV, the Company's relative performance compared to a group of companies with characteristics similar to Vale and, as of 2020, the alignment with the Company's main strategic deliveries (through ESG metrics). Therefore, the plans align the interests of the managers and the interests of the Company in the medium and long term.

f. Maximum number of shares covered

Not applicable. There is no granting of stock options under the share-based compensation plans.

In case of the PAV, the number of shares granted as a reference under the plan varies according to the basic compensation of each officer and with the average price of the common shares issued by Vale in a specified number of trading sessions prior to the grant.

In the case of the Matching Plan, the calculation base is the fixed compensation received by the Company's Board of Statutory Executive Officers, and the parameters for this calculation are pre-established for each hierarchical level and each country where the Company operates.

g. Maximum number of options to be granted

Not applicable. There is no granting of stock options under the share-based compensation plans.

h. Conditions for acquisition of shares

Not applicable. Share-based compensation plans do not grant officers with options to acquire Company shares.

i. Criteria for setting the price of acquisition or exercise

Not applicable. As the plans do not contemplate the granting of stock options, there is no need to mention the determination of the purchase price or option exercise.

Considering the Company's current plans:

- (i) in the PAV, the definition of the reference price to be considered at the beginning of each cycle, for the purposes of calculating the number of virtual shares granted, takes into account the price history of the shares issued by Vale in the last 60 trading sessions of the year before the beginning of the respective cycle, weighted by the volume of shares traded in each of these trading session and makes payments linked to Vale's performance in the ranking of peer companies, measured by Vale's and peer company's accumulated TSRs in the period; for the cycles started as of 2020, such payments will also be impacted by the ESG metrics. After approval at the April 2021 Meeting, the awarding of this cash payment program for awarding real shares issued by the Company at market price. This is not a new compensation program, but the change in the form of payment of a type of program granted in previous years and it is not a stock option plan, in line with art. 168, § 3 of Law 6,404 / 76 and
- (ii) in Matching, for the definition of the granting price to be considered at the beginning of each cycle, it is considered the average purchase price of the shares issued by Vale in the market, at the beginning of the cycle, referring to the participation of all Company's officers that are eligible to participate in the program and that have opted to invest cash resources for the purchase of said shares in the market. This same grant price is then also applied to all Company officers who are eligible to participate in the program and who have opted to invest through blocking their "free stock".

j. Criteria for setting the term of exercise

Not applicable. The share-based compensation plans do not contemplate the granting of stock options, consequently there is no term for the exercise.

Considering the current programs: in PAV, the reward was carried out in a gradual way (0%, 20%, 30% and 50%) over a four year cycle. As of 2019, the cycle duration was shortened to three years and with full reward (100% at the end of the cycle, without intermediate payments).

In the Matching Program, the reward occurs at the end of the 3-year cycle, and as of 2019 there may also be gradual payments, whenever there is distribution of dividends or interest on equity by Vale to its shareholders.

k. Settlement form

The Matching is rewarded with the same number of shares initially purchased by the officer, also at the end of the three year cycle.

Besides the final award, the Matching Program includes partial payments related to virtual dividends, which will be made whenever dividends or interests on equity are distributed to Vale's shareholders.

The PAV, until the 2020 reward, was paid in cash at the end of the 3-year cycle. As proposed to the Annual Shareholders' Meeting, as of the 2021 grant, if approved by the shareholders in said Meeting, the Virtual Stock Program/PAV will be modified as below:

- (iii) it will be paid in shares issued by the Company ("Real Stock") (and not in cash anymore), and
- (iv) an additional payment (virtual dividends) at the end of the cycle, based on (a) the value to be paid per share in the distribution of dividends or interests on equity by Vale to its shareholders during the duration of the cycle, and (b) the number of shares initially granted to the officers multiplied according to the program final performance factor. Such adjustments strengthen the ownership feeling and the engaging of the officers, besides aligning their actions to the shareholders' interest.

For officers terminated by the Company's initiative, the Matching and PAV rewards are paid at the termination act, proportionally to the period worked and based on partial results. As of 2021, for Statutory Officers terminated by the Company's initiative, such payments will be made only on the vesting of the cycles, and based on the verified official results (share price and performance metrics).

Both plans include the withholding tax, which is borne by the Company for the benefit of the participants.

I. Restrictions on the transfer of shares

In the Matching Plan, if the participant trades, transfers or sells any of the Company's shares linked to the Plan within the period of three years, he loses the right to the reward at the end of the cycle.

Also, within the scope of the Plan, operations involving derivatives, which may show to be positions sold in Vale's shares, as well as the lease of shares owned by the participant to third parties, are prohibited, considering that the Matching program has as one of its purposes the exposure and alignment of the officer to the Company's listed shares during the period of the Plan. The transactions described above (involving derivatives and share leases) related to any share of Vale that the officer holds are also prohibited, even if they were acquired outside the scope of the Plan, as long as he is an active participant of the Plan.

Furthermore, as of 2019, Statutory Officers must comply with the Stock Ownership Guidelines, so that de statutory officer must keep the property of Vale's issued shares with a value equivalent to at least 36 (thirty-six) times the value of the monthly fixed payment to the CEO and to 24 (twenty-four) times the value of the monthly fixed payment to the other Executive Officers. Officers may reach this level of participation over their terms, and cannot trade the shares before the minimum value is reached. This rule is not valid for Non-Statutory Officers.

This item is not applicable to the PAV, since the participants of the Plan are not required to maintain a shareholding position in the Company.

m. Criteria and events that, when verified, will cause the suspension, change or extinction of the plan

In the Matching program, any transfer, trade or sale of the shares issued by Vale linked to the plan by the participant before the end of the three year cycle, leads to the cancellation of any rights related to the Plan, besides the compliance with the Stock Ownership Guidelines for Statutory Officers.

In the Matching program and in the PAV, the voluntary termination by the officer leads to the extinction of any future rights related to the Plans.

Furthermore, the Malus and/or Clawback rules may also be applied for Statutory Officers, due to facts or events extraordinary, as was the case, for example, in 2019 due to the Brumadinho dam breach. These rules are described in tem 13.1.b(i) and do not apply for Non-Statutory Directors.

n. Effects of the departure of the officer of the issuer's bodies on his rights under the share-based compensation plan

As it is a retention mechanism, in case of termination by his own initiative, the participant loses the right to receive any rewards from the share-based compensation plans. In case of termination or non-renewal of the employment agreement by the Company, the participant receives the amounts to which he had already become entitled at the time of termination of the contract.

13.5. Regarding the share-based compensation recognized for the past three fiscal years, and that anticipated for the current fiscal year, for the Board of Directors and Board of Statutory Executive Officers, prepare a table with the following content:

The share-based compensation plans (described in item 13.4) do not contemplate the granting of stock options, because they are based on the quotations of the Company's shares to define the amount to be paid as an incentive to Executive Officers.

Therefore, most information is not applicable, for example, information related to the weighted average price of the reporting period (a) of the options outstanding at the beginning of each fiscal year, (b) of the options lost during each fiscal year, c) of the options exercised during each fiscal year, (d) of the options expired during each fiscal year and to the potential dilution in case of exercise of all options granted are not applicable to the Company. Considering the above paragraphs, the incentive information, including the amounts paid in each period, is disclosed in the tables below for reference purposes.

Share-based compensation anticipated for the current fiscal year (2021):

	Board of Directors	Board of Statutory Executive Officers	Total
Total number of members⁽¹⁾	14.00	9.48	23.48
Number of members receiving compensation⁽²⁾	0.00	9.48	9.48
Weighted average price of exercise:			
(a) of the options outstanding at beginning of the fiscal year	n/a	n/a	n/a
(b) of the options lost during the fiscal year	n/a	n/a	n/a
(c) of the options exercised during the fiscal year	n/a	n/a	n/a
(d) of the options expired during the fiscal year	n/a	n/a	n/a
Potential dilution in case of exercise of all options granted	n/a	n/a	n/a

⁽¹⁾ Corresponds to the estimate of the annual average of the number of members of said administrative body to be verified monthly pursuant to item 13.2.

⁽²⁾ Corresponds to the number of officers and directors, as applicable, who were assigned share-based compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

Share-based compensation - Fiscal Year ended on Dec 31, 2020:

	Board of Directors	Board of Statutory Executive Officers	Total
Total number of members⁽¹⁾	13.25	6.35	19.60
Number of members receiving compensation⁽²⁾	0.00	6.35	6.35
Weighted average price of exercise:			
(a) of the options outstanding at beginning of the fiscal year	n/a	n/a	n/a
(b) of the options lost during the fiscal year	n/a	n/a	n/a
(c) of the options exercised during the fiscal year	n/a	n/a	n/a
(d) of the options expired during the fiscal year	n/a	n/a	n/a
Potential dilution in case of exercise of all options granted	n/a	n/a	n/a

⁽¹⁾ The total number of members corresponds to the annual average of the number of members of said administrative body, verified monthly under the terms of item 13.2.

⁽²⁾ The number of members receiving compensation corresponds to the number of officers and directors, as applicable, who were assigned share-based compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

Share-based compensation - Fiscal Year ended on Dec 31, 2019:

	Board of Directors	Board of Statutory Executive Officers	Total
Total number of members⁽¹⁾	12.92	6.91	19.83
Number of members receiving compensation⁽²⁾	0.00	6.91	6.91
Weighted average price of exercise:			
(a) of the options outstanding at beginning of the fiscal year	n/a	n/a	n/a
(b) of the options lost during the fiscal year	n/a	n/a	n/a
(c) of the options exercised during the fiscal year	n/a	n/a	n/a
(d) of the options expired during the fiscal year	n/a	n/a	n/a
Potential dilution in case of exercise of all options granted	n/a	n/a	n/a

⁽¹⁾ The total number of members corresponds to the annual average of the number of members of said administrative body, verified monthly under the terms of item 13.2.

⁽²⁾ The number of members receiving compensation corresponds to the number of officers and directors, as applicable, who were assigned share-based compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

Share-based compensation - Fiscal Year ended on Dec 31, 2018:

	Board of Directors	Board of Statutory Executive Officers	Total
Total number of members⁽¹⁾	12.08	6.00	18.08
Number of members receiving compensation⁽²⁾	0.00	6.00	6.00
Weighted average price of exercise:			
(a) of the options outstanding at beginning of the fiscal year	n/a	n/a	n/a
(b) of the options lost during the fiscal year	n/a	n/a	n/a
(c) of the options exercised during the fiscal year	n/a	n/a	n/a
(d) of the options expired during the fiscal year	n/a	n/a	n/a
Potential dilution in case of exercise of all options granted	n/a	n/a	n/a

⁽¹⁾ The total number of members corresponds to the annual average of the number of members of said administrative body, verified monthly under the terms of item 13.2.

⁽²⁾ The number of members receiving compensation corresponds to the number of officers and directors, as applicable, who were assigned share-based compensation as recognized in the issuer's results for the year, as set forth in Official Circular Letter CVM/SEP 01/2021.

Share-based compensation anticipated for the current fiscal year (2021):

	Board of Directors	Board of Statutory Executive Officers	Total
Granting of stock options (Incentive Grant)			
Date of grant	-	January 2017 and 2018, and March 2018 ⁽¹⁾	-

(Date of granting the incentive)			
Number of granted options	n/a	n/a	n/a
Deadline for options to become exercisable (Deadline for receiving the incentive)	-	December 2020 and March 2021 ⁽²⁾	-
Deadline for the exercise of options	n/a	n/a	n/a
Term of restriction on the transfer of shares	n/a	n/a	n/a
Fair value of the options on the date of each grant (Value of the Incentive Paid)	-	60,370,298.95	60,370,298.95

(1) The PAV cycles began in January 2017 and 2018, and the Matching cycle began in March 2018, with payments scheduled for 2021.

(2) On December 31, 2020, the third and second windows of anticipation of the PAV cycles began respectively on December 31st, 2017 and 2018; the Matching cycle began in 2018 and will end in March 2021.

Share-based compensation - fiscal year ended on 12/31/2020:

	Board of Directors	Board of Statutory Executive Officers	Total
Granting of stock options (Incentive Grant)			
Date of grant (Date of granting the incentive)	-	January 2016, 2017 and 2018, and March 2017 ⁽¹⁾	-
Number of granted options	n/a	n/a	n/a
Deadline for options to become exercisable (Deadline for receiving the incentive)	-	December 2019 and March 2020 ⁽²⁾	-
Deadline for the exercise of options	n/a	n/a	n/a
Term of restriction on the transfer of shares	n/a	n/a	n/a
Fair value of the options on the date of each grant (Amount of the Incentive Paid)	-	35,325,905.85	35,325,905.85

(1) The PAV cycles began in January 2016, 2017 and 2018, and the Matching cycle began in March 2017, with payments scheduled for 2020. The Matching cycle began in 2016 with payment originally scheduled for 2019, but, due to its suspension, it was also paid in 2020, but not taken into account in the above table.

(2) On December 31, 2019, the third, second and first windows of anticipation of the PAV cycles were closed (they had begun, respectively, in 2016, 2017 and 2018); and the Matching cycle, that began in 2017, was closed in March 2020. The Matching cycle began in 2019, but due to its suspension it was also paid in 2020, but not taken into account in the above table.

Share-based compensation - fiscal year ended on December 31, 2019

	Board of Directors	Board of Statutory Executive Officers	Total
Granting of stock options (Incentive Grant)			

Date of grant (Date of granting the incentive)	-	January 2015, 2016 and 2017 ⁽¹⁾	-
Number of granted options	n/a	n/a	n/a
Deadline for options to become exercisable (Deadline for receiving the incentive)	-	December 2018 ⁽²⁾	-
Deadline for the exercise of options	n/a	n/a	n/a
Term of restriction on the transfer of shares	n/a	n/a	n/a
Fair value of the options on the date of each grant (Amount of the Incentive Paid)	-	25,676,497.21	25,676,497.21

(1) The PAV cycles began in January 2015, 2016 and 2017, with payments scheduled for 2019. The Matching cycle begun in 2016 with payment originally scheduled for 2019, is being budgeted for 2020 due to its suspension.

(2) The third, second and first windows of anticipation of the PAV cycles begun, respectively, in 2015, 2016 and 2017, were closed pm December 31st, 2018. The Matching cycle that ended in March 2019 is being budgeted for 2020 due to its suspension.

Share-based compensation - fiscal year ended on 12/31/2018:

	Board of Directors	Board of Statutory Executive Officers	Total
Granting of stock options (Incentive Grant)			
Date of grant (Date of granting the incentive)	-	January 2014, 2015 and 2016, and March 2015 ⁽¹⁾	-
Number of granted options	n/a	n/a	n/a
Deadline for options to become exercisable (Deadline for receiving the incentive)	-	December 2017 and March 2018 ⁽²⁾	-
Deadline for the exercise of options	n/a	n/a	n/a
Term of restriction on the transfer of shares	n/a	n/a	n/a
Fair value of the options on the date of each grant (Amount of the Incentive Paid)	-	19,622,073.35	19,622,073.35

(1) In 2014, 2015 and 2016 the PAV cycles started in January, and the Matching cycle started in March 2015.

(2) On December 31, 2017, the third, second and first windows of anticipation of the PAV cycles were closed (they had begun, respectively, in 2014, 2015 and 2016); and the Matching cycle, that began in 2015, was closed in March 2018.

13.6 - Regarding open stock options of the Board of Directors and Board of Statutory Executive Officers at the end of the fiscal year, prepare table with the following content:

Not applicable, since the company's share-based compensation plans does not contemplate the granting of stock options. The plans based on the Company's shares take into account the share price and the measured performance factors in order to carry the granting.

The Matching program reward corresponds to the net amount equivalent to at least to the same number of shares acquired by the participant at the beginning of the cycle, plus the corresponding Withholding Tax.

The PAV award is equivalent to the net amount in cash, and, as of the 2021 grants, in Real Stock (approved in the 2021 Ordinary and Extraordinary Shareholders' Meetings), according to the verified share price and the performance metrics.

For more information, refer to items 13.4 and 13.5 of this Annex III to the Proposal.

13.7 - Regarding stock options exercised and shares delivered related to the share-based compensation of the Board of Directors and Board of Statutory Executive Officers, prepare a table with the following content, for the past three fiscal years:

Information not applicable to the PAV, since that, until the award in 2020, the PAV was paid in cash at end of the 3-year cycle. Therefore the plan did not contemplate the granting of stock options nor the delivery of shares issued by the Company. As proposed to the Annual Shareholders' Meeting, as of the 2021 reward, if approved by shareholders in said Meeting, the Virtual Stock Program/PAV will be paid in shares issued by the Company ("Real Shares") (and not in cash anymore):

The Matching plan does not contemplate the granting of stock options, but contemplates the delivery of shares issued by the Company. Therefore, under the Matching plan, the Company may directly purchase shares in the market or use shares in its treasury in order to meet the Program's benefits. For additional information regarding the number of shares in the treasury and the amount used for this purpose, please see items 19.2 and 19.3 of the Reference Form.

For reference purposes only, the shares delivered to officers (which were bought in the market) due to the Matching Plan in the last 3 (three) fiscal years are presented below:

Share-based compensation - fiscal year ended on 12/31/2020

Administrative Body	Board of Directors	Board of Statutory Executive Officers
Total number of members ⁽¹⁾	13.25	6.35
Number of members receiving compensation ⁽²⁾	0.00	6.35
Options exercised		
Number of shares	N/A	N/A
Weighted average price of exercise	N/A	N/A
Difference between the exercise value and the market value of the shares linked to the options exercised	N/A	N/A

Shares delivered		
Number of shares delivered	N/A	432,920 ³
Weighted average purchase price	N/A	44.06 ⁴
Difference between the purchase price and the market value of the purchased shares	N/A	N/A

⁽¹⁾ The total number of members corresponds to the estimate of the annual average of the number of members of said administrative body verified monthly under the terms of item 13.2.

⁽²⁾ Corresponds to the number of executive officers and advisors, as applicable, linked to the Matching plan, as provided for in Circular Letter CVM / SEP 01/2021.

⁽³⁾ That is a total of 132,157 shares related to the Matching cycle started in 2016 (whose payment was suspended in 2019 and happened only in 2020) and 300,763 shares related to the cycle started in 2017 (with payment originally scheduled for 2020).

⁽⁴⁾ This is the simple average between the weighted average price of the 2016 cycle (whose payment was suspended in 2019 and happened only in 2020), which was R\$ 46,35 and the weighted average price of the 2017 cycle (with payment originally scheduled for 2020), which was R\$ 41,47.

Share-based compensation - fiscal year ended on 12/31/2019

Administrative Body	Board of Directors	Board of Statutory Executive Officers
Total number of members ⁽¹⁾	12.92	6.91
Number of members receiving compensation ⁽²⁾	0.00	6.91
Options exercised		
Number of shares	N/A	N/A
Weighted average price of exercise	N/A	N/A
Difference between the exercise value and the market value of the shares linked to the options exercised	N/A	N/A
Shares delivered		
Number of shares delivered	N/A	0

Weighted average purchase price	N/A	N/A
Difference between the purchase price and the market value of the purchased shares	N/A	N/A

⁽¹⁾ The total number of members corresponds to the estimate of the annual average of the number of members of said administrative body verified monthly under the terms of item 13.2.

⁽²⁾ Corresponds to the number of executive officers and advisors, as applicable, linked to the Matching plan, as provided for in Circular Letter CVM / SEP 01/2021.

Share-based compensation - fiscal year ended on 12/31/2018

Administrative Body	Board of Directors	Board of Statutory Executive Officers
Total number of members⁽¹⁾	12.08	6.00
Number of members receiving compensation ⁽²⁾	0.00	6.00
Options exercised		
Number of shares	N/A	N/A
Weighted average price of exercise	N/A	N/A
Difference between the exercise value and the market value of the shares linked to the options exercised	N/A	N/A
Shares delivered		
Number of shares delivered	N/A	165,177
Weighted average purchase price	N/A	43.5287
Difference between the purchase price and the market value of the purchased shares	N/A	N/A

⁽¹⁾ The total number of members corresponds to the estimate of the annual average of the number of members of said administrative body verified monthly under the terms of item 13.2.

⁽²⁾ Corresponds to the number of executive officers and advisors linked to the Matching program, as provided for in Circular Letter CVM / SEP 01/2021.

For more information, see items 13.4 to 13.6 in this Annex III to the Proposal.

13.8 - Summary description of information necessary to understand the data disclosed in items 13.5 to 13.7, such as the explanation regarding the stock and option pricing methods, indicating at least:

Item not applicable. See items 13.4 to 13.7 this Annex III to the Proposal.

Nevertheless, pursuant to item 13.5, the Company clarifies that the values paid (or scheduled to be paid) were taken into account in the company share-based variable compensation plans (Matching and PAV), since the Company does not have stock option plans.

The effective share purchasing price in the market in the day of reward were considered for the Matching program rewards. Therefore, under the Matching program, the Company may purchase shares directly in the market or use shares in its treasury in order to meet the Program's benefits. For additional information regarding the number of shares in the treasury and the amount used for this purpose, please see items 19.2 and 19.3 of the Reference Form.

Regarding the PAV rewards, the average negotiated volume share prices were considered until 2020, related to the 60 last sessions of the year before the reward. Until the 2020 reward, the PAV was paid in cash at the end of the 3-year cycle. As proposed to the Annual Shareholders' Meeting, as of the 2021 reward, if approved by shareholders in said Meeting, the Virtual Stock Program/PAV will be paid in shares issued by the Company ("Real Shares") (and not in cash anymore):

13.9. Inform the number of shares or stocks directly or indirectly held in Brazil or abroad, and other securities convertible into shares or stocks, issued by the issuer, its direct or indirect controllers, controlled companies or under common control, by members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by department.

a. Number of shares or stocks directly or indirectly held in Brazil or abroad, and other securities convertible into shares or stocks, issued by the Company, by members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by department on the closing date of the last fiscal year:

Shares issued by VALE S.A.

Shareholders on 12/31/2020	Nominative CS
Board of Directors ¹	19,304
Board of Statutory Executive Officers ²	1,218,371
Total	1,237,675

¹ Includes 790 shares in American Depositary Receipts (ADRs), on the New York Stock Exchange, issued by Vale S.A.

¹ Includes 89,919 shares in American Depositary Receipts (ADRs), on the New York Stock Exchange, issued by Vale S.A.

¹ Includes 90,709 shares in the form of American Depositary Receipts (ADRs), on the New York Stock Exchange, issued by Vale S.A.

b. Number of shares or stocks directly or indirectly held in Brazil or abroad, and other securities convertible into shares or stocks, issued by the Company's direct and indirect controllers, by members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by administrative body, on the closing date of the last fiscal year:

As of December 31, 2020, the Company had no controlling shareholders.

c. Number of shares or stocks directly or indirectly held in Brazil or abroad, and other securities convertible into shares or stocks, issued by controlled companies or under the common control of the Company, by members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by administrative body, on the closing date of the last fiscal year:

The members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by administrative body, do not hold, directly or indirectly, shares or stocks, in Brazil or abroad, and other securities convertible into shares or stocks, issued by controlled companies or under the common control of the Company, on the closing date of the last fiscal year.

13.10 - Regarding pension plans in force granted to members of the Board of Directors and to the Statutory Officers, provide the following information in the form of a table:

According to a contractual clause, the Company pays the amounts of the employer and the executive, up to 9% of the fixed compensation, to Valia – Fundação Vale do Rio Doce de Seguridade Social (“Valia”), or to another supplementary pension plan of the statutory officer’s choice.

In Valia, the minimum age for applying for retirement income is 45, after a minimum five years grace period with contributions.

Valia – Fundação Vale do Rio Doce de Seguridade Social

	Board of Directors	Board of Statutory Executive Officers	Total
Number of members ⁽¹⁾	-	7 members	-
Name of the Plan	Benefit Plan Vale Mais		
Number of administrators who qualify for retirement	-	2, of whom (i) 0 per Normal Retirement Income and (ii) 2 per Early Retirement Income.	-

	Board of Directors	Board of Statutory Executive Officers	Total
Conditions for early retirement	-	<ul style="list-style-type: none"> ▪ be at least 45 years old; ▪ have at least 5 years of uninterrupted enrollment with VALIA, counted from the initial date of the last enrollment of the participant in the Vale Mais Plan (except for participants who migrated from the Defined Benefit Plan – already extinct - to the Vale Mais Plan); ▪ have terminated the employment contract with the sponsor or have lost the manager status. 	-
Updated amount of accumulated contributions in the pension plan until the end of the last fiscal year, minus the portion related to contributions made directly by the administrators	-	R\$10,388,140.70 ⁽²⁾	-
Accumulated total amount of contributions made during the last fiscal year, minus the portion related to contributions made directly by the administrators	-	R\$ 2,027,378.13 ⁽³⁾	-

	Board of Directors	Board of Statutory Executive Officers	Total
Possibility and conditions for early redemption	-	<p>The active participant who, on the date of termination of his/her employment agreement with the sponsor, or on the date he/she loses his/her manager status, does not elect to become a self-sponsored payer or co-participant, or does not opt for the portability and is not enjoying Vale Mais Plan benefits, shall be eligible to receive the Redemption.</p> <p>The Redemption value will be equal to: 100% of the Participant's Account + 1% of the Sponsor's Account per month of ordinary contribution paid by the participant to the Vale Mais Plan, up to a maximum of 80% of that Account.</p>	-

(1) Corresponds to the number of directors and officers, as applicable, linked to the pension plan, as provided for in Circular Letter CVM / SEP 01/2021.

(2) Amount corresponding to the sum of the Sponsor Accounts of the participants, determined on 12/31/2020.

(3) Amount corresponding to the sum of the ordinary contributions made by the sponsor on behalf of each participant in the fiscal year of 2020.

13.11 - In form of a table, nominate, for the 3 last fiscal years, regarding the Board of Directors, Board of Statutory Executive Officers and Fiscal Council:

BOARD OF DIRECTORS	Total number of members	Number of members receiving compensation	Amount of the highest individual compensation (R\$)	Amount of the lowest individual annual compensation (R\$)	Average amount of the individual annual compensations (R\$)
2020	13.25	13.25	1.515.887,77	697.332,64	924.518,13
2019	12.92	12.92	1,224,000.00	540,000.00	765,925.02
2018	12.08	12.08	1,087,301.28	540,000.00	632,150.35

Note: The members with the highest and lowest individual compensations were compensated for twelve months in the period. Considers charges and participation in committees for sitting members.

BOARD OF STATUTORY EXECUTIVE OFFICERS	Total number of members	Number of members receiving compensation	Amount of the highest individual compensation (R\$)	Amount of the lowest individual annual compensation (R\$)	Average amount of the individual annual compensations (R\$)
2020	6.35	6.35	31.517.607,55	6.668.017,46	23.836.572,62
2019	6.91	6.91	15,102,649.02	3,281,499.41	12,359,524.81
2018	6.00	6.00	22,625,108.16	5,255,131.28	27,683,502.09

Notes:

2020: Net of taxes. The highest individual compensation refers to a member with 12 months of activity in the company in 2020.

The lowest individual compensation refers to a member with 12 months of activity, in view of the orientation of excluding members who have worked for a shorter period in 2020.

The average compensation refers to the total paid to statutory officers divided by the number of active members, according to guidelines in the circular letter.

2019: The highest individual compensation refers to a member with 6 months of activity in the company.

The lowest individual compensation refers to a member with 12 months of activity, in view of the orientation of excluding members who have worked for a shorter period.

2018: When disclosing the Reference Form in 2019, the Company introduced an additional table in item 13.16 "Other Relevant Information", which shows the amounts paid disregarding amounts related to non-recurring events, such as severance commitments and expenses related to termination of officers and social contribution charges applicable to such expenses, for purposes of the calculation of the maximum and average compensation of the Board of Statutory Executive Officers. The Company understands that the table introduced below more appropriately reflects the average and maximum compensation of the Board of Statutory Executive Officers in the ordinary course of the Company's business regarding this period, as it does not contemplate the effects of non-recurring events.

In 2018, all active members of that body exercised the position in the company for twelve months, and the member of the Board of Executive Officers with the highest compensation exercised its functions during the twelve-month period.

The Company clarified that the average amount of the individual compensation corresponded to the total amount of the annual compensation of the Board of Executive Officers, including amounts related to termination of position for executives who left the Company before the beginning of the fiscal year, divided by the number of members receiving compensation, according to Circular Letter/CVM/SEP No. 03/2019, both indicated in item 13.2. Due to this reason, the average value was higher than the value of the highest individual compensation.

FISCAL COUNCIL	Total number of members	Number of members receiving compensation	Amount of the highest individual compensation (R\$)	Amount of the lowest individual annual compensation (R\$)	Average amount of the individual annual compensations (R\$)
2020	4.75	4.75	348.453,88	263.834,86	331.530,08
2019	5.00	5.00	440,116.55	440,116.55	440,140.40
2018	5.00	5.00	409,332.42	409,332.42	409,332.42

Note: The members with the highest individual compensation were compensated for 12 months in the period, while the member with smallest individual compensation was compensated for 9 months in the period. Considers charges.

13.12. Describe contractual arrangements, insurance policies or other instruments that structure mechanisms for compensation or indemnification for administrators in the event of dismissal or retirement, indicating the financial consequences for the issuer.

The contracts with the Company's Statutory Officers contain indemnification and non-competition (period of unavailability) clauses for cases of termination, non-renewal of the contract and retirement, provided that these events take place at the Company's initiative, in the following amounts: Until the 2020 fiscal year, the indemnification and non-competition values were fixed based on a multiple of the officer's monthly base salary.

At the end of 2020, the severance package for the Company's Statutory Officers was altered, to be implemented as of 2021, in the following terms:

- Establishment of a range varying from zero to the current multiple of the officer's monthly base salary, being the final value to be defined for each officer for indemnification for the period of unavailability (non-competition clause) to be appreciated by the Board of Directors. The adjustments allow the Company to establish indemnity funds compatible with the complexity of the position, maturity of the executive in the function and performance in the conduct of results, replacing the previously defined fixed and previously defined multiples in the same way for all.
- Changes in the payment format of long-term variable compensation programs that are in force at the time of termination of the officer, which will be paid only at the moment of the vesting of the cycles and based on the official results obtained (share price and performance metrics), and no longer at the time of termination based on partial results.

Vale does not sign with the members of the Board of Directors and members of the Fiscal Council other contractual arrangements, insurance policies or other instruments that structure compensation or indemnification mechanisms in case of removal from office, besides those described in this Annex III to the Proposal.

For details regarding insurance policies and indemnity contracts involving the payment or reimbursement of expenses borne by the Company's managers, see item 12.11 of this Reference Form.

13.13. Regarding the 3 last fiscal years, indicate the percentage of total compensation of each administrative body recognized in the issuer's results, related to members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council who are parties related to the controllers, direct or indirect, as defined by the accounting rules that address this matter.

Administrative Body	2020	2019	2018
Board of Directors	32.6%	46.9%	43.04%
Board of Statutory Executive Officers	0.00%	0.00%	0.00%
Fiscal Council	0.00%	0.00%	0.00%

13.14. Regarding the last three fiscal years, indicate the values recognized in the issuer's results as compensation paid to members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council, grouped by administrative body, for any reason other than the position they hold, such as, for instance, commissions and consultancy or advisory services provided.

In the last three fiscal years, no compensation was paid to members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council for any reason other than the position they hold.

13.15. Regarding the last three fiscal years, indicate the values recognized in the results of direct or indirect controllers, companies under common control and subsidiaries of the issuer, such as compensation paid to members of the Board of Directors, Board of Statutory Executive Officers or Fiscal Council of the issuer, grouped by administrative body, specifying to what titles such values were attributed to such individuals

Fiscal Year 2020 - compensation received due to the exercise of a position in the Company				
	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Direct and Indirect Controllers	-	-	-	-
Company's Subsidiaries	-	Total: R\$ 2,904.23 related to benefits granted abroad	-	R\$ 2,904.23
Companies Under Common Control	-	-	-	-

Fiscal Year 2019 - compensation received due to the exercise of a position in the Company				
	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Direct and Indirect Controllers	-	-	-	-
Company's Subsidiaries	-	Total: R\$ 3.751.415,76, made up of: (a) Fixed portion and direct and indirect Benefits: R\$ 743.033,44; and (b) Termination of Position: R\$ 3,008,382.32	-	R\$ 3,751,415.76
Companies Under Common Control	-	-	-	-

Fiscal Year 2018 - compensation received due to the exercise of a position in the Company				
	Board of Directors	Board of Statutory Executive Officers	Fiscal Council	Total
Direct and Indirect Controllers	-	-	-	-
Company's Subsidiaries	-	Total: R\$ 21,532,564.19, made up of: (a) Fixed portion and direct and indirect Benefits: R\$ 1,994,456.08; and (b) Termination of Position: R\$ 19,538,108.11	-	R\$ 21,532,564.19
Companies Under Common Control	-	-	-	-

13.16. Provide other information that the issuer deems relevant.

The Company reminds that, in 2020, in addition to the regular programs with payment in 2020, the variable compensation installments that had been suspended in 2019 due to the Brumadinho dam breach were planned and paid for executives who were not involved in any investigation related to the dam rupture.

Installments that had been suspended in 2019 are related to the Annual Bonus and to the Matching Program (including due applicable charges). This situation does not apply to PAV, since it was settled to the executives before the Brumadinho dam beach (payment date: January 15, 2019).

The amounts actually paid in 2020, segmented between the suspended programs for 2019 and the 2020 programs are shown below:

Variable Compensation	2020A	
	Ref. to 2019	Ref. to 2020
Annual Bonus	17.580.362	19.048.646
Share-based Compensation (VSP)		16,097,816
Share-based Compensation (Matching)	7.614.066	22,280,322
Others	3,516,072	4,725,399
Total Variable Compensation	28.710.500	62,152,183

Therefore, approximately R\$ 30 million of the compensation scheduled for 2020 refers to the 2019 fiscal year.

Further Clarifications to Item 13

Proposal for the Global Compensation 2021

The proposal for the manager's global compensation for the 2021 fiscal year to be submitted to the Annual Shareholders' Meeting to set the global annual compensation for Vale's administrators, members of the Advisory Committees and members of the Fiscal Council for the 2021 fiscal year, in the amount of up to **R\$ 202.759.895,90 (two hundred two million seven hundred fifty nine thousand eight hundred ninety five Reais and ninety centavos) net of taxes**, to be individualised by Vale' Board of Directors, as well as to set the monthly compensation for each member in office of the Fiscal Council as of May 1st, 2021, until the Annual Shareholders' Meeting to be held in 2022 in an amount corresponding to 10% (ten percent) of the compensation that, in average, will be monthly assigned to each Executive Officer²², not counting the benefits, representation payments and profit sharing. In addition to the compensation set forth above, the members in office of the Fiscal Council shall be entitled to reimbursement of travel and subsistence expenses necessary for the performance of their duties, provided that alternate members shall only be remunerated in the cases in which they exercise their title due to vacancy, impediment or absence of the respective sitting member.

It is once again clarified that the 2021 global amount above mentioned is higher than the amount mentioned in item 13.2 of the Reference Form for 2021, since it also contemplates, besides the compensation to be assigned to the members of Board of Directors, of the Fiscal Council and of the Board of Executive Officers, the compensation to Committee members (external members and committee members that are also alternate members of the Board of Directors), while the amounts in item 13.2 of this Annex III to the Proposal contemplates only the compensation values of the members of the Board of Directors (including the compensation of the sitting members of the Board of Directors

14. Human Resources

14.1 – Description of human resources

a. number of employees (total, per groups based on the activity performed and per geographic location)

The table below shows the number of employees of the Company and its subsidiaries on December 31, 2018, 2019 e 2020:

	2018 ⁽⁴⁾	2019	2020
Total number of own employees	70,270	71,149	74,316
<i>Per business area</i>			
Ferrous Minerals	43,504	42,077	44,342
Non-ferrous	14,349	13,738	13,762
Coal	2,350	2,927	3,320
Fertilizers ⁽¹⁾	12	0	0
Other ⁽²⁾	10,055	12,407	12,892
<i>Per geographic location</i>			
Brazil	55,230	55,439	58,249
Canada	6,029	6,078	6,166
Indonesia	3,128	3,095	3,082
New Caledonia	1,359	1,373	1,255
Australia	19	11	8
United States	3	4	3
China	152	179	164
Mozambique	2,664	3,279	3,698
Peru	29	33	31
Chile	10	12	12
Other ⁽³⁾	1,647	1,646	1,648

(1) Discontinued operations.

- (2) It comprises the following: Corporate Services and Biopalma.
(3) It comprises the following: Argentina, United Arab Emirates, France, Netherlands, India, Japan, Malaysia, Oman, Paraguay, United Kingdom, Singapore, Switzerland and Uruguay
(4) In 2018, Vale Fertilizantes, Miski Mayo and Vale Cubatão ceased to be part of the general consolidation. Companies Biopalma and Tecnores have become part of the global consolidation.

b. number of third parties (total, per groups based on the activity performed and per geographic location)

The table below shows the number of third parties of the Company and its subsidiaries for the fiscal years ended December 31, 2018, 2019 and 2020 per activity performed and per geographic location:

	2018 ⁽³⁾	2019	2020
Number of third parties	54,644	78,143	111,921
<i>Per business area</i>			
Ferrous	26,714	27,749	34,042
Non-ferrous	8,850	10,828	10,395
Coal	4,212	5,900	6,076
Other ⁽¹⁾	14,868	33,666	61,408
<i>Per geographic location</i>			
Brazil	40,371	57,388	90,877
Canada	2,918	3,892	4,617
Indonesia	3,242	5,657	6,499
New Caledonia	1,203	1,081	192
Australia	0	1	6
China	18	18	20
Mozambique	5,543	8,731	8,016
Peru	2	2	2
Chile	11	28	89
Other ⁽²⁾	1,336	1,345	1,603

⁽¹⁾ It comprises the following: Corporate Services and Biopalma.

⁽²⁾ It comprises the following: Argentina, Japan, Malaysia, Oman, Paraguay, United Kingdom, Singapore, Switzerland and Uruguay.

⁽³⁾ In 2018, Vale Fertilizantes, Miski Mayo and Vale Cubatão are no longer part of the general consolidation. Biopalma and Tecnores have become part of the global consolidation.

c. Turnover rate

The turnover rate of the Company's employees and its subsidiaries in the fiscal years ended in 2018, 2019 and 2020 was 6.5%, 6.44% and 7.48%, respectively. The turnover rate is calculated on the basis of data from Vale S.A. and its subsidiaries in the following countries: Brazil, Canada, Indonesia, New Caledonia, Australia, United States, China, Mozambique, Peru, Chile, Argentina, Austria, United Arab Emirates, Netherlands, India, Japan, Malaysia, Oman, Paraguay, United Kingdom, Singapore, Switzerland and Uruguay. The turnover rate is equal to the termination rate for the year, that is, a rate of 7.48% means that, for 100 active employees in 2020, almost 8 employees were terminated.

14.2 – Relevant changes – Human resources

In the fiscal year of 2018, there was a 39% increase in the number of third parties in the area of Ferrous, which was due to some factors such as: (a) increase in the production of iron ore and pellets with Serra Sul ramp-up, return of Plants 1, 2 and São Luís Plants, among others, (b) entry of the new Contract Management System (SGC), and (c) new third-party accounting rule, accounting for per CPF and no longer per job title.

In 2019, there was a 43% increase in the total number of third parties, where 31% are related to Project/Temporary Third Parties and 12% to Permanent Third Parties. This growth was due to the increase in the number of third parties in the project area, from 2018 to 2019, by virtue of: (a) implementation of dam containment projects; (b) increase in the current portfolio; (c) increase in the works of major projects approved in the second half of 2018 (Salobo III, Programa 240 and Programa do Gelado); (d) increase in the volume of works for the two major Canadian projects (VBME and CCM Phase 1).

In the fiscal year of 2020, there was a 43% growth in the total of third parties, due to the works of the Reparation Board, an increase in the current projects portfolio, resumption of works in 2020 after stoppage due to the pandemic scenario and the inclusion of third parties associated with contracting by service level - outsourcing. In addition to the above, outsourcing data has not been reported in previous years, only permanent third-party data and project data have been considered.

14.3 – Description of the employee compensation policy

Wages and benefits provided by Vale and its subsidiaries are usually defined taking into account compensation and benefit practices of each location in which the Company operates.

a. Variable compensation and salary policy

Fixed compensation

Income-basis: monthly fixed installment, defined through Company's job structure, which is aligned with Market best practices and have as na aim remunerate the services provided within the scope of responsibility attributed to each employee in the different activities of the Company.

Vale negotiates salaries and benefits with several unions in different countries and has signed collective bargaining agreements with unionized employees at our operations in Brazil, Canada, Indonesia, Malawi, Mozambique and Oman.

In Brazil, Vale has signed collective bargaining agreements with national coverage clauses and local specific agreements with unions representing 100% of the Company's employees in the country of its employees. In the Collective Bargaining Agreement 2020/2021, a 4.5% pay increase was granted, as of November 2020, to all employees who do not hold management positions at the Company.

Vale Canada also establishes salaries and benefits for its unionized employees through collective bargaining agreements. In 2020, collective bargaining agreements were negotiated for operations in the province of Ontario. For non-unionized employees, Vale Canada undertakes an annual review of wages and benefits. The Company offers these employees and their dependents other benefits, including flexible supplementary health care.

Variable compensation

Profit sharing and Results (PLR): annual variable portion based on Company's results and defined by means of objective indicators and targets, derived from strategic planning. In addition to ensuring competitiveness with the market, PLR has as its main objective alignment with the interests of shareholders and focus on socio-environmental issues, to recognize the participation of employees in the Company's performance.

Certain employees who are part of Vale's management team may, depending on the eligibility of each plan, also participate in the long-term incentives, such as:

- (i) Matching: For information on the Matching, see item 13.4 of this Reference Form.

(ii) *Virtual Share Program (“PAV”)*: For information on the PAV, see item 13.4 of this Reference Form.

The variable compensation and salary policy attributed to non-statutory Officers is described in item 13 of this Reference Form.

b. Benefit policy

Wages and benefits provided by Vale and its subsidiaries are usually defined on a company-to-company basis. Our benefit policy is in line with our strategy of attraction and retention, following the applicable legislation and the market practice in the countries where we operate. We provide an attractive and competitive benefit package, which ensures health, well-being, protection and quality of life. The main benefits offered to the employees are medical and dental care, life insurance, private pension fund, and short-term and long-term disability benefits.

With regard to pension plans, Vale recommends offering a model of the type of contribution defined at the locations where the financial market allows the management of long-term resources in a sustainable manner.

Vale's Brazilian employees and most of its Brazilian subsidiaries may participate in pension plans managed by Valia. The majority of participants in Valia's plans participate in a plan called "Vale Mais", which Valia implemented in 2000. This plan is mainly defined as a contribution plan with a fixed benefit in relation to services prior to 2000 and other fixed benefits to cover temporary or permanent disability, retirement and financial protection to dependents in the event of death. Valia also operates a fixed benefit plan, closed to new participants since May 2000, with benefits based on years of service, wage, and social security benefits. This plan covers retired participants and their beneficiaries, as well as a relatively small number of employees who did not want to switch from the old plan to the "Vale Mais" plan when it was established in May 2000.

The employees of our base metals operations participate in fixed benefit pension plans and fixed contribution pension plans. Fixed benefit plans have been closed to new participants since 2009, and all new employees in our Base Metals operations are eligible to participate in fixed contribution pension plans.

c. Characteristics of share-based compensation plans of non-management employees, identifying (i) group of beneficiaries; (ii) conditions for the exercise; (iii) exercise prices; (iv) terms of exercise; and (v) the number of shares committed by the plan.

The share-based compensation plans described in item 13.4 of this Reference Form are extended to non-statutory Officers of the Company, and to other levels of leadership, according to the eligibility rules of each plan. The main characteristics of the referred to plans are described in item 13.4 of this Reference Form.

14.4 - Description of the relations between the issuer and unions, indicating whether there were any stoppages or strikes in the last three fiscal years

Vale maintains a harmonious relationships with unions worldwide and seeks to settle any conflicts directly with the unions, through frequent meetings and permanent gatherings (up to the date of this Reference Form, there are approximately 20 unions in Brazil and 12 unions in the rest of the world).

In the last three fiscal years, there were no strikes or stoppages in the activities of the Company or its subsidiaries, pursuant to the Global Reporting Initiative (GRI), which establishes as strikes or stoppages interruptions of more than 7 days.

As of 2005, employees elect, through a direct voting process, an effective member of the Board of Directors and its respective alternate. Elections are conducted jointly by the Company and the unions.

14.5 – Other relevant information – Human Resources

There is no other relevant information that has not been disclosed in the items above.

15. Control and economic group

15.1/ 15.2 Shareholding position

Shareholder	Nationality	Federal Unit	Legal Representative / Proxy	CPF / CNPJ (Brazilian taxpayer no.) of the Proxy	CPF/ CNPJ	Common Shares		Preferred Special Class Shares		Total Preferred Shares		Total		Member of shareholders' agreement	Majority shareholder	Date of last change
						Quantity	%	Quantity	%	Quantity	%	Quantity	%			
Previ – Caixa de Previdência dos Funcionários do Banco do Brasil	Brazilian	RJ	N/A	N/A	33.754.482 / 0001-24	527,685,282	9.986	0	0	0	0	527,685,282	9.986	No	No	04/30/2021
Bradespar S.A.	Brazilian	SP	N/A	N/A	03.847.461/00 01-92	293,907,266	5.562	0	0	0	0	293,907,266	5.562	No	No	04/30/2021
Mitsui & Co., Ltd	Japanese		Mitsui & Co. (Brazil) S.A.	61.139.697/0001-70	05.466.338/00 01-57	286,347,055	5.419	0	0	0	0	286,347,055	5.419	No	No	04/30/2021
BlackRock, Inc.	North American	-	Banco BNP Paribas Brasil S.A.	01.522.368/0001-82	N/A	279,562,772	5.290	0	0	0	0	279,562,772	5.290	No	No	04/30/2021
Capital World Investors	North American	-	J.P. Morgan S.A. Distributor of Bonds and Securities.	33.851.205/0001-30	N/A	302,201,922	5.719	0	0	0	0	302,201,922	5.719	No	No	04/30/2021
Capital Research Global Investors	North American	-	J.P. Morgan S.A. Distributor of Bonds and Securities.	33.851.205/0001-30	N/A	294,934,543	5.581]	0	0	0	0	294,934,543	5.581]	No	No	04/30/2021
Federal Government	Brazilian	-	-	-	-	0	0.000	12	100.000	12	100.000	12	0.001	No	No	04/30/2021
Treasury	-	-	N/A	N/A	-	164,518,561	3.113	0	0	0	0	164,518,561	3.113	-	-	04/30/2021
Others	-	-	N/A	N/A	-	3,135,317,369	59.331	0	0	0	0	3,135,317,369	59.331	-	-	N/A
Total	-	-	-	-	-	5,284,474,770	100.000	12	100.000	12	100.000	5,284,474,782	100.000	-	-	-

15.3 – Capital Distribution

Date of last change	04/30/2021
Number of individual shareholders (Units)	291,684
Number of legal entity shareholders (Units)	2,625
Number of institutional investors (Units)	2,254

Outstanding Shares

Outstanding shares corresponding to all shares of the issuer, except those held by the controlling shareholder, the persons related to it, the managers of the issuer, and the shares held in treasury.

	Units	Percentage
Number of common shares	5,119,956,209	96.89%
Number of class E preferred shares	0	0.00%
Number of preferred shares	0	0.00%
Total	5,119,956,209	96.89

15.4 Organization chart of the issuer's shareholders and the economic group in which it is inserted, indicating:

- a. all direct and indirect controllers and, in case the issuer so wishes, the shareholders with interest equal to or greater than 5% of one class or type of shares**

Vale has not had controlling shareholders since the termination of the Shareholders' Agreement, entered into on August 14, 2017, on November 9, 2020 .

b. main subsidiaries and affiliates of the Company:

On March 31, 2021, Vale's main subsidiaries or affiliates (see item 9.1.c of this Reference Form) included:

Aliança Geração de Energia S.A. – Shared Control Directly in the country
Aliança Norte Energia Participações S.A. – Shared Control Directly in the country
Baovale Mineração S.A. – Shared Control Directly in the country
California Steel Industries, Inc. – Shared Control Abroad
Companhia Coreano-Brasileira de Pelotização – Shared Control Directly in the country
Companhia Hispano-Brasileira de Pelotização – Shared Control Directly in the country
Companhia Ítalo-Brasileira de Pelotização – Shared Control Directly in the country
Companhia Nipo-Brasileira de Pelotização – Shared Control Directly in the country
Companhia Portuária da Baía de Sepetiba - Directly Controlled in the country
CSP - Companhia Siderúrgica do Pecém - Shared Control Directly in the country
Ferrous Resources Limited - Directly Controlled Abroad
Korea Nickel Corporation – Indirectly Shared Control Abroad
Mineração Rio do Norte S.A. – Shared Control in Brazil
Minerações Brasileiras Reunidas S.A. – Directly Controlled in Brazil
MRS Logística S.A. - Shared Control Directly in the country
Nacala Corridor Holding Netherlands B.V. - Shared Control
New Steel Global - Directly Controlled Abroad
Salobo Metais S.A. – Directly Controlled in Brazil
Tecnored Desenvolvimento Tecnológico S.A. – Directly Controlled in the country
Vale Canada Limited – Indirectly Controlled Abroad
Vale Holdings B.V. - Directly Controlled Abroad
Vale International S.A. – Indirectly Controlled Abroad
Vale Malaysia Minerals Sdn. Bhd. – Indirectly Controlled Abroad
Vale Manganês S.A. – Directly Controlled in Brazil
Vale Shipping Holding Pte. Ltd – Indirectly Controlled Abroad
VLI S.A. – Directly Shared Control in Brazil

For further information, see item 15.7 of this Reference Form.

c. Company's interests in group companies

On March 31st, 2021, Vale had no interest in other companies in the group other than its controlled and affiliated companies.

d. group companies' interests in the Company

On March 31st, 2021, none of the companies in the group, which is not a direct or indirect controlling shareholder of Vale, held direct or indirect interests in the Company.

e. companies under common control

As of March 31, 2021, Vale had no controlling shareholders, so there were no companies under common control.

15.5 Shareholders' agreement filed at the issuer's headquarters or to which the controller is a party

Not applicable. Since the termination, on November 9, 2020, of the Shareholders' Agreement entered into on August 14, 2017, Vale has not had any shareholder or group of controlling shareholders, or any controlling block, nor is there any shareholders' agreements filed at the Company's headquarters.

15.6 – Significant changes to stakes held by members of the issuer's control group and officers

There were no significant changes to interests held by members of the Company's control group and directors, in the latest three (3) fiscal years.

It should be noted, however, that since the termination, on November 9, 2020, of the Shareholders' Agreement entered into on August 14, 2017, Vale has not had any shareholder or group of controlling shareholders, or any controlling block, nor is there any shareholders' agreements filed at the Company's headquarters.

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15.7 - Main corporate events occurred at the issuer, subsidiaries or affiliates

The transactions below had no effect on Vale's shareholding structure. Considering the nature of these transactions, and for not involving a company directly or indirectly controlling Vale, there is no sense in implementing mechanisms to guarantee equitable treatment among the shareholders of the Company.

2018

Voisey's Bay mine's cobalt stream sale

On June 28, 2018, Vale completed the transactions with Wheaton Precious Metals Corp. (Wheaton) and Cobalt 27 Corp. (Cobalt 27) for the sale of a Stream in the aggregate total of 75% cobalt, related to the cobalt byproduct of the Voisey's Bay mine to be delivered from January 1, 2021, encompassing the ramp-down of the current mine operation of Voisey's Bay and the future production of the Voisey's Bay (VBME) underground expansion project. Under the terms disclosed on June 11, 2018, Vale received, on this date, US\$ 390 million cash from Wheaton, and US\$ 300 million cash from Cobalt 27, upon conclusion of the transaction.

Sale of interests in coal project in Australia

In September 2018, the Company sold its 50% interest in the Eagle Downs coal project (including all associated rights and obligations) in Central Queensland, Australia, to BS Coal Pty Ltd, for the total amount of: (i) \$90 million in cash upon completion, (ii) \$27 million in cash on the third anniversary of closing, and (iii) royalties to be paid for more than 50 percent of all Eagle Downs Project produced and sold coal.

Purchase of Ferrous Resources Limited

On December 4, 2018, the Company entered into an agreement with IEP Ferrous Brazil LLC for the acquisition of Ferrous Resources Limited, a company that held and operated, through its subsidiaries in Brazil, iron ore mines close to Vale's operations in Minas Gerais, at the amount of R\$ 2.131 billion (equivalent to US\$ 550 million). All conditions were met, including the approval of antitrust authorities in Brazil, and the transaction was completed on August 1st, 2019.

Purchase of New Steel Global NV

On December 10th, 2018, the Company entered into an agreement with Hankoe FIP to acquire New Steel Global NV and, indirectly, New Steel S.A. and Centro Tecnológico Soluções Sustentáveis S.A., companies that develop innovative iron ore beneficiation technologies, and have patents for dry concentration processes (Fines Dry Magnetic Separation - FDMS) in several countries. The cost of acquisition is US\$ 500 million. All conditions were met, including the approval of antitrust authorities in Brazil, and the transaction was completed on January 24th, 2019. New Steel currently has patents in 56 countries for Fines Dry Magnetic Separation (FDMS), a dry process concentration technique.

2019

Mergers of Vale Holdings & Services AG and Vale International Holdings GmbH

On November 1st, 2019, Vale concluded the reorganization of its international structure, with: (i) the merger of Vale Holdings & Services AG into Vale International Holdings GmbH; and (ii) the merger of Vale International Holdings GmbH into Vale Holdings B.V., the new company name of Cubatão Fertilizer B.V., a company based in the Netherlands that became directly owned by Vale S.A.

Redemption of Preferred Shares of Minerações Brasileiras Reunidas S.A. – MBR

On December 20th, 2019, Vale redeemed, a Special Shareholders' Meeting of the controlled company Minerações Brasileira Reunidas S.A. – MBR (“MBR”) approved both compensation and redemption, with the resulting cancellation of all class A preferred shares issued by MBR, wholly owned by Banco Bradesco BBI S.A., at the total amount of R\$ 3,309 million. Upon such an operation, Bradesco ceased to be an MBR shareholder, causing the sale of the minority interests to be ended.

2020

Ferrous Resources System Ownership Restructuring

On January 31, 2020, after the completion of the acquisition of Ferrous Resources Limited by the Company, which took place on August 1, 2019, the Company implemented a corporate reorganization of the companies indirectly controlled by Ferrous Resources Limited in Brazil and, through (a) transfers of shares issued by: (i) Ferrous Resources do Brasil SA, (ii) Empresa de Mineração Esperança S.A. and (iii) Mineração Jacuípe S.A. e (b) a reduction in the capital stock of Ferrous Resources Limited, the Company became the sole shareholder of Ferrous Resources do Brasil S.A., of Empresa de Mineração Esperança S.A. and of Mineração Jacuípe S.A., therefore directly holding one hundred percent (100%) of the shares issued by them.

Merger of Ferrous Resources do Brasil S.A.

On April 30, 2020, the Company's Special Shareholders' Meeting approved the merger of Ferrous Resources do Brasil S.A. into the Company, which already held one hundred percent (100%) of the shares issued by the said merged company.

Merger of Mineração Jacuípe S.A.

On April 30, 2020, the Company's Special Shareholders' Meeting approved the merger of Mineração Jacuípe S.A. into the Company, which already held one hundred percent (100%) of the shares issued by the said merged company.

Merger of Minas da Serra Geral S.A., Retiro Novo Reflorestamento Ltda., MSE – Serviços de Operação, Manutenção e Montagens Ltda. and Mineração Guariba Ltda.

On April 30, 2020, the Company's Special Shareholders' Meeting approved the merger of the companies Minas da Serra Geral S.A., Retiro Novo Reflorestamento Ltda., MSE – Serviços de Operação, Manutenção e Montagens Ltda. and Mineração Guariba Ltda. into the Company, which already held one hundred percent (100%) of the shares/membership interests issued by the merged companies.

Acquisition of shares of Empreendimentos Brasileiros de Mineração S.A. – EBM

On November 3, 2020, Vale purchased, from JFE Steel Corporation, common shares representing 99.999998% of the share capital of Empreendimentos Brasileiros de Mineração S.A. – EBM (“EBM”), with which Vale became the direct owner of 100% of EBM's shares and, directly and indirectly, the holder of 100% of the shares issued by Minerações Brasileiras Reunidas S.A. – MBR (“MBR”).

Total divestment of the palm oil production and marketing business in Brazil

On November 19, 2020, Vale and its subsidiary Docepar S.A. completed the transaction for the sale of shares issued by Brasil Bio Fuels Reflorestamento, Indústria e Comércio S.A. (formerly

referred to as Biopalma da Amazônia S.A. Reflorestamento, Indústria e Comércio) to Brasil Bio Fuels Pará Ltda., a company belonging to the economic group of Brasil Bio Fuels S.A., resulting in a total divestment of the palm oil production and marketing business in Brazil. This transaction had been approved by the antitrust authority in Brazil.

Liquidation of Minerações BR Holdings GmbH

In December 2020, the liquidation process of Minerações BR Holdings GmbH in Austria ("MBR Austria"), a subsidiary of MBR, was completed. In the course of the liquidation process, MBR Austria divested 100% of its stake in Zhuhai YPM Pellet Co. Ltd.

VLI S.A. ("VLI") Stock Option Purchase Agreement ("Agreement") exercised by BNDES Participações S.A. – BNDESPAR ("BNDESPAR")

In December 2020, BNDESPAR exercised the option to purchase 711,263,233 (common shares, registered and with no par value, issued by VLI, representing approximately 8% of the total shares issued by VLI, which it held against the Company, as a result of a Stock Option Purchase Agreement of shares issued by VLI, entered into by BNDESPAR and the Company on June 23, 2015. As a result of this transaction, the Company now held 2,631,089,569 common shares issued by VLI, representing approximately 29.6% of VLI's total shares.

2021

Acquisition of interest in Boston Metal

On January 29, 2021, Vale completed a US\$6 million investment in the Boston Electrometallurgical Company to acquire a minority stake in the company, focused on the development of steel decarbonization technology.

Sale of Potasio Rio Colorado

On February 19, 2021, Vale and its indirect subsidiary Vale Fertilizer Netherlands BV concluded the transaction for the sale of 100% shares issued by Potasio Rio Colorado to the Province of Mendoza, resulting in the total divestment of the project of the same name, acquired by Vale in 2009.

Sale of Vale Nova Caledônia

On March 31, 2021, the sale of Vale Nouvelle-Calédonie S.A.S ("VNC") was completed by subsidiary Vale Canada Limited ("VCL") to Prony Resources New Caledonia consortium. The transaction provides a \$1.1 billion financial package to VNC operations, in which Vale Canada Limited will contribute \$555 million to support the continuity of operations and financing of the Pact for Sustainable Development of the Extreme South that will also be secured by Vale. In

addition, Vale will continue to be entitled to a long-term supply contract for part of the production, allowing it to continue meeting the growing demand for nickel by the electric vehicle industry.

Mergers of Companhia Paulista de Ferro Ligas ("CPFL") and Valesul Alumínio S.A. ("Valesul")

On April 30, 2021, the Vale's Annual Shareholders Meeting approved the merger, by the Company, of CPFL and Valesul by Vale, who already held 100% (one hundred percent) of the shares issued by the said merged companies, without the issuance of new shares and without changes in Vale's share capital, with the consequent version of the full amount of their respective assets for Vale. As a consequence of the said mergers, CPFL and Valesul will be extinguished and Vale will succeed them universally, in all their assets, rights and obligations of a legal or conventional order, under the terms of the current legislation.

Merger of the Spun-off Assets of Minerações Brasileiras Reunidas S.A. ("MBR") by Vale

On April 30, 2021, the Company's Extraordinary Shareholders' Meeting approved the incorporation of the net assets to be spun-off formed by certain assets and liabilities of MBR ("Acquired Collection MBR") by the Company, which will succeed MBR, universally and without continuity solution, in all rights and obligations in relation to the incorporated MBR Spun-off Collection.

15.8 - Other relevant information

Further clarifications to item 15.1/2

Further clarifications on item 15.2

The following are further clarifications to item 15.2, regarding shareholders that hold significant interests in the Company:

Capital Research and Management Company

Capital World Investors ("CWI") and Capital Research Global Investors ("CRGI") hold relevant equity interests in the Company, as reported in item 15.1/2 of this Reference Form. CWI and CRGI are independent investment divisions of Capital Research and Management Company ("CRMC");

CRMC is a company incorporated and existing under the laws of the United States of America, with headquarters at 333, South Hope Street, Los Angeles, California 90071, United States of America, as a holding company of foreign investment management companies, having as legal representative in Brazil the JP Morgan Distributor of Securities, enrolled with the CNPJ/MF under No. 33.851.205/0001-30, and Citibank DTVM SA, enrolled with the CNPJ/MF under No. 33.868.597/0001-40.

In addition to the shares mentioned above, which are described in item 15.1/2 of this Reference Form, as reported to the Company, Capital International Investors, also as CRMC's independent investment division, manages common shares issued by the Company, in a percentage of less than 5%. These interests are recorded in item 15.1/2 in the line "Others".

For CWI and CRGI's current positions, please see item 15.1/2 of this Reference Form.

Further clarifications on item 15.3

In relation to the information required by item 15.3.c of Exhibit 24 of CVM Instruction 480/09, the Company clarifies that, despite having made efforts to do so, it was not possible to obtain segregation of institutional investors for all the securities that make up the distribution of its capital, in the institutions responsible for this control, especially in relation to holders of ADRs, due to the inexistence of systems currently reporting reports covering such information.

Thus, in item 15.3.c, for information purposes "number of institutional investors", in relation to the holders of ADRs, it was considered exclusively the depositary of such ADRs, Citibank N.A.

The Company further clarifies that it was not possible to identify 2.1% of the total shareholders and, therefore, it was not possible to segregate them into "individuals", "legal entities" or "institutional investors" in item 15.3.

16. Related party transactions

16.1 - Description of the issuer's rules, policies and practices regarding the transactions with related parties, as defined by the accounting rules that deal with this matter, stating, when there is a formal policy adopted by the issuer, the body responsible for its approval, date of approval and, if the issuer discloses the policy, locations on the worldwide computer network where the document can be viewed.

Vale is among the largest Brazilian private companies, which operates in various segments of the economy, and in view of the constant search for better commercial conditions, the Company negotiates the terms of transactions inherent to its business, which includes transactions with related parties.

As provided for in the Bylaws, Vale's Board of Directors is responsible for deliberating on any business between the Company and a related party, and it is certain that the members of the Board of Directors with interests potentially conflicting with the interests of the Company will not participate in the decision-making process.

Therefore, the Board of Directors must resolve on the policies to avoid conflicts of interest between Vale and its shareholders or management, as well as on the adoption of measures deemed necessary in the event of conflicts of this nature. In this sense, the Board of Directors may establish delegations, with jurisdictions and procedures, that meet the peculiarities and nature of the operations, without prejudice to being duly informed about all the Company's transactions with related parties.

Therefore, on December 19, 2013, Vale's Board of Directors approved Vale's Transaction policy (as updated on October 21, 2015 and January 28, 2021, the "Policy"), which establishes the principles and guidelines for Transactions with Related Parties and other situations of potential conflict of interest involving Vale or its subsidiaries, to be conducted under commutative and market conditions. According to the Policy:

- The definition of "Related Party" and "Transactions with Related Parties" follow the criteria of accounting standards, which may be more restrictive than applicable laws and regulations under certain circumstances.
- The revised policy introduced the concept of "Reference Shareholders", which are shareholders who are considered related parties, based on the standards established in Politics, which consider, the effective influence on Vale through a direct or known relationship, the existence of common management with such shareholder or a company that is part of this group of shareholders, among others. The Reference Shareholders list will be reviewed annually by the Audit Committee.
- The Audit Committee is responsible for reporting potential conflicts of interest between Vale and its shareholders or directors and reviewing the procedures and terms of transactions with related parties that are submitted for approval by the Board of Directors. For information on the measures taken to address conflicts of interest, see item 16.3 of this Reference Form.
- Any shareholder, or their representative, with potentially conflicting interests is excluded from the transaction-related decision-making process and will only have access to publicly available information on the matter.
- Any loans in favor of Related Parties are expressly forbidden, except in favor of subsidiaries or affiliates of Vale Group.

The Policy establishes the following procedure for identifying Vale's Reference Shareholder.

- a. The classification of a shareholder as a reference shall be deliberated by the Executive Board of Finance and RI at least once a year, in accordance with the shareholder's performance before the Company, considering (i) their effective influence on the Company that may be due to direct ties or notorious relationship, (ii) the existence of common directors with the shareholder or company of their group, (iii) the existence of directors who are employed or occupy positions in the shareholder or their group. This classification will be evaluated annually by the Audit Committee for its opinion.
- b. In the first 60 days following the end of each fiscal year, Vale's Reference Shareholders shall submit the list of entities and persons that configure Related Parties under the Policy ("List"), without prejudice to the discretion that the Reference Shareholders bring to the attention of the competent Audit Committee cases in which they consider that there is a conflict of interest.
- c. Any updates to the List shall also be informed to Vale within 60 days of the date on which the Related Party is aware of the occurrence.
- d. In order to validate or supplement the information received, the Compliance Board will conduct consultations regarding the data provided by the Reference Shareholders, as well as the persons identified by them respectively in the Reference Shareholders' Questionnaire and their possible updates.
- e. During any sale, quotation, purchase or contracting process, regardless of nature or value, involving Vale or its subsidiaries, a list of Related Parties shall be consulted, which consolidates all information received as above, in order to verify whether it is a potential Transaction with related Party and, if positive, such transaction shall follow specific internal procedures for its approval by the governance bodies in accordance with the Policy.

The absence of a voluntary manifestation of a member of the Key Personnel of the Company's Management, in relation to the existence of a conflict of interest, will be considered a violation of the terms of the Policy, and this act should be brought to the attention of the Compliance Board, which will recommend to the competent bodies of the Company's management, about the application of any penalties.

If any Transaction with a Related Party that has not been submitted to the classification and resolution governance provided for in the Policy, prior to its consummation, becomes known to Vale's administrators and employees, the Transaction shall be reported to the Compliance Board, which shall notify the requesting/tenderer responsible for the non-compliance, to initiate the procedures established in the Policy.

In addition, to ensure transparency about these transactions to investors and the market, Vale discloses information about Transactions with Related Parties through its financial statements, annual reports, in fact relevant or specific communications.

The Policy and practices of Vale with respect to Related Party Transactions comply with the guidelines of the Brazilian Corporate Governance Code.

The Policy of Transactions with Related Parties and Conflicts of Interest can be found on the Company's website (www.vale.com), the Investor Relations section (<http://www.vale.com/brasil/PT/investors/corporate-governance/policies/Paginas/default.aspx>) and the CVM *website* (www.gov.br/cvm).

16.2 - Except for the transactions carried out between the issuer and companies in which it holds, directly or indirectly, of the entire share capital, to disclose information on related party transactions that, according to accounting standards, should be disclosed in the issuer's individual or consolidated financial statements and that were entered into during the last financial year or are in force during the current financial year:

Name of the related party	Banco Bradesco S.A.
Transaction date	04/08/2016
Amount involved (R \$)	8,513,344,579.69
Existing balance (R\$)	4,128,061,466.12
Amount of the related party	Not applicable
Duration	Maturities until 09/13/2023
Loan or other type of debt	No
Interest Rate	95.840604
Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>323 applications contracted by Vale and its subsidiaries (Bank Deposit Certificate).</p> <p>The "amount involved" specified above considers the accumulated value of the financial operations celebrated in 2020 and of the operations started in previous years with a balance in effect on 12/31/2020, resulting in a total of 323 financial investments. It was presenting considering the oldest operation still existing on 12/31/2020. The "duration" specified above considers the last maturity date of the 323 financial investments referred to in this field "object of the contract". The value of the "interest rate" specified above considers the weighted interest rate of the income of the 323 financial investments referred to in this field "object of the contract".</p> <p>The interest rate is calculated by means of the weighted average of the rates applicable to the 323 financial investments, at a rate of 91.47% of the CDI.</p> <p>The applications are readily convertible into cash and are considered with daily liquidity.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Banco Bradesco S.A., New York Branch
Transaction date	10/13/2020
Amount involved (R \$)	20,640,497,810.12
Existing balance (R\$)	3,749,348,243.61
Amount of the related party	Not applicable
Duration	03/30/2021
Loan or other type of debt	No
Interest Rate	0.966492
Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>60 <i>Time Deposit applications</i> contracted by Vale and its subsidiaries.</p> <p>The "amount involved" specified above considers the accumulated value of the 60 <i>Time Deposit applications</i> in force as of December 31, 2020 and carried out in 2020, the operations were contracted in 2020US \$ and converted for the purposes of this document to R \$ by PTAX (R \$ 5.1967). The "transaction date" is date of the oldest operation existing on 12/31/2020. The "duration" specified above considers the date of the last</p>

	maturity of the 60 financial applications referred to in this field "object of the contract". The value of the "interest rate" specified above considers the weighted interest rate of the income of the 60 financial applications referred to in this field "object of the contract".
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Banco do Brasil S.A.
Transaction date	04/25/2019
Amount involved (R \$)	3,156,442,588.64
Existing balance (R\$)	64,672,876.36
Amount of the related party	Not applicable
Duration	Maturities until 08/19/2025
Loan or other type of debt	No
Interest Rate	91.784289
Relationship to issuer	Banco do Brasil is a sponsor of the pension fund of the bank's employees, Previ – Caixa de Previdência dos Funcionários do Banco do Brasil, the latter, in turn, holds control of Litel Participações S.A. (" <u>Litel</u> "), a <i>holding company</i> that was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>266 financial applications contracted by Vale and its subsidiaries (Bank Deposit Certificate, Committed Applications and Financial Bills).</p> <p>The "amount involved" specified above considers the accumulated value of applications in force celebrated in 2020 and of the applications started in previous years, with a balance in effect on 12/31/2020, resulting in a total of 266 financial operations. The "transaction date" considers the oldest operation that still existed on 12/31/2020. The "duration" specified above considers the date of the last maturity of the 288 financial applications referred to in this field "object of the contract". The value of the "interest rate" specified above considers the weighted interest rate of the income of the 266 financial investments referred to in this field "object to the contract".</p> <p>The interest rate is the weighting of the rates of the 266 financial investments. 91.78% of CDI.</p> <p>The applications are readily convertible into cash and are considered with daily liquidity.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Banco do Brasil S.A., New York Branch
Transaction date	11/27/2020
Amount involved (R \$)	3,377,855,000.00
Existing balance (R\$)	2,858,941,119.85
Amount of the related party	Not applicable
Duration	Maturities until 03/19/2021
Loan or other type of debt	No
Interest Rate	0.438461
Relationship to issuer	Banco do Brasil is a sponsor of the pension fund of the bank's employees, Previ – Caixa de Previdência dos Funcionários do Banco do Brasil, the latter, in turn, holds control of Litel Participações S.A. (" <u>Litel</u> "), a <i>holding company</i> that was a signatory to the Company's Shareholders' Agreement.
Object of the contract	5 <i>Time Deposit</i> applications contracted by Vale and its subsidiaries.

	The "amount involved" specified above considers the accumulated value of the 5 Time Deposit applications celebrated in 2020, the operations were contracted in US\$ and converted to R\$, through PTAX (R\$ 5.1967), for this document. The "transaction date" considers the oldest operation existing on 12/31/2020. The "duration" specified above considers the date of the last maturity of the 5 financial applications referred to in this field "object of the contract". The value of the "interest rate" specified above considers the weighted interest rate of the income of the 5 financial applications referred to in this field "object of the contract".
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Banco Bradesco S.A.
Transaction date	01/03/2020
Amount involved (R \$)	792,814,828.,86
Existing balance (R\$)	Not applicable
Amount of the related party	Not applicable
Duration	12/30/2020
Loan or other type of debt	No
Interest Rate	0.00000
Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	Throughout 2020, 128 closings of foreign exchange operations were made by Vale and its subsidiaries in 8 different foreign currencies. The "amount involved" specified above considers the value provided for in the 128 contracts made to which this field "object of the contract" refers. The "transaction date" is the oldest date existing on 12/31/2020. The "duration" specified above considers the date of the last maturity of the open transactions on 12/31/2020.
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Banco do Brasil S.A.
Transaction date	01/02/2020
Amount involved (R \$)	24,222,048,825.40
Existing balance (R\$)	Not applicable
Amount of the related party	Not applicable
Duration	12/30/2020
Loan or other type of debt	No
Interest Rate	0.00000
Relationship to issuer	Banco do Brasil is the sponsoring company of the bank employees 'pension fund, Previ - Banco do Brasil Employees' Pension Fund, the latter, in turn, holding control of Litel Participações SA ("Litel") , a holding company that was a signatory to the Company's Shareholders' Agreement.
Object of the contract	During 2020, 668 foreign exchange transactions were settled by Vale and its subsidiaries in 5 different foreign currencies. The "amount involved" specified above considers the amount provided for in the 668 contracts executed referred to in this field "object of the contract". The "transaction date" is the oldest date on 12/31/2020. The "duration" specified above considers the date of the last due date of open transactions on 12/31/2020.

If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Banco Bradesco Europa S.A.
Transaction date	02/13/2020
Amount involved (R \$)	457,395,000.00
Existing balance (R\$)	0.00
Amount of the related party	Not applicable
Duration	Maturities until 06/15/2021
Loan or other type of debt	No
Interest Rate	0.450000
Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement. and Banco Bradesco S.A. are under common control.
Object of the contract	<p>3 receivables discount operations contracted by Vale <i>International</i> in 2020.</p> <p>The "amount involved" specified above considers the total amount debilled. The "transaction date" is the first discount date in the year. The "duration" specified above considers the date of the last maturity of the 3 operations.</p> <p>The interest rate is the weighting of the rates of the 3 Libor receivable discount transactions plus 0.55% p.a..</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Banco Bradesco S.A.
Transaction date	03/10/2006
Amount involved (R \$)	4,706,459,551.49
Existing balance (R\$)	6,610,392,638.56
Amount of the related party	Not applicable
Duration	Indefinite
Loan or other type of debt	No
Interest Rate	0.8600
Relationship with the Issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>23 bank guarantees contracted by Vale group with Banco Bradesco to ensure legal proceedings.</p> <p>Transaction date: The date of the first contracting 03/10/2006 was informed. The last two contractings took place on 07/17/2019.</p> <p>Interest rate: It refers to the average annual cost of the commission charged on top of these 23 guarantees.</p> <p>If the issuer is a creditor or debtor: this classification is not applicable in this type of transaction, since it is an ancillary transaction, tied to a main obligation. Therefore, the Company is a secured party of Banco Bradesco.</p> <p>Base date of the position reported: 12/31/2020</p>
If the issuer is a creditor or debtor	Others
Warrants	Not applicable
Termination or extinction conditions	Not applicable. Condition for the termination of the guarantee: (i) return of the original copy of the letter of guarantee and any amendments and, (ii) issuance of proof of the termination of the guarantee duly signed by the beneficiary or the delivery to the guarantor of document that proves, unequivocally, the extinction of the liabilities secured.
Nature and Reasons for the	Not applicable.

operation / other relevant information	
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Name of the related party	Vale Moçambique
Transaction date	04/09/2018
Amount involved (R \$)	511,875,950.00
Existing balance (R\$)	511,875,950.00
Amount of the related party	-
Duration	04/09/2021
Loan or other type of debt	NO
Interest Rate	Not applicable
Relationship with the Issuer	Vale's stake in Vale Moçambique
Object of the contract	Vale S.A. contracted a bank guarantee (Standby Letter of Credit) with Unicredit to guarantee Vale Moçambique. Value in Dollars - USD 98,500,000.00 NOTE: quote from 12/31/2020 for conversion = 5.1967 Base date of the position reported: 12/31/2020
If the issuer is a creditor or debtor	Debtor/Guarantor/Beneficiary
Warrants	Not applicable
Termination or extinction conditions	Not applicable
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Banco Bradesco S.A.
Transaction date	12/02/2013
Amount involved (R \$)	7,507,028,000.00
Existing balance (R\$)	5,423,432,647.41
Amount of the related party	N/A
Duration	12/15/2028
Loan or other type of debt	N/A
Interest Rate	N/A
Relationship to issuer	Brad spar S.A., which was a signatory of Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control
Object of the contract	43 hedge transactions with the initial national value of \$7.5 Billion. There are several contracting and maturity dates. The date of contracting of the first contract and the maturity of the longer contract were indicated above. The hedges were contracted with the objective of protecting themselves from exchange variation and existing financial indexes in the Company's debts and obligations in reais. Base date of the position reported: 12/31/2020
If the issuer is a creditor or debtor	N/A
Warrants	N/A
Termination or extinction conditions	N/A
Nature and Reasons for the operation / other relevant information	N/A

Name of the related party	Banco do Brasil
Transaction date	09/23/2019
Amount involved (R \$)	16,413,900,000.00
Existing balance (R\$)	0.00
Amount of the related party	273,565,000.00
Duration	12/23/2024
Loan or other type of debt	Yes
Interest Rate	0.00000
Relationship to issuer	Banco do Brasil is a sponsor of the bank's employee pension fund, Previ – Caixa de Previdência dos Funcionários do Banco do Brasil, the latter, in turn, holds control of Litel Participações S.A. ("Litel"), a holding company that was a signatory to the Company's Shareholders' Agreement.

Object of the contract	<p>Syndicated revolving credit line contracted by Vale and two subsidiaries with a syndicate of banks, led by Citigroup, Crédit Agricole, MUFG and Sumitomo Mitsui Banking Corporation.</p> <p>Interest rate: Libor + Margin that varies according to the Company's corporate rating. In case of divergent rating, the highest rating between Moodys and S&P is applied:</p> <table><thead><tr><th><u>S&P Rating</u></th><th><u>Moodys Rating</u></th><th><u>Margin (p.a.)</u></th></tr></thead><tbody><tr><td>A- or greater</td><td>A3 or greater</td><td>0.45%</td></tr><tr><td>BBB+</td><td>Baa1</td><td>0.60%</td></tr><tr><td>BBB</td><td>Baa2</td><td>0.75%</td></tr><tr><td>BBB-</td><td>Baa3</td><td>0.90%</td></tr><tr><td>BB+ or smaller</td><td>Ba1 or smaller</td><td>1.15%</td></tr></tbody></table> <p>Commission Fee for use: from 0 to 0.30% p.a., depending on the percentage of use of the line, to be added in the margin.</p> <p>Amortization: to be determined in the disbursement request on any date up to the due date of the contract</p> <p>The line was fully disbursed in March 2020, and paid in full in September of the same year.</p>	<u>S&P Rating</u>	<u>Moodys Rating</u>	<u>Margin (p.a.)</u>	A- or greater	A3 or greater	0.45%	BBB+	Baa1	0.60%	BBB	Baa2	0.75%	BBB-	Baa3	0.90%	BB+ or smaller	Ba1 or smaller	1.15%
<u>S&P Rating</u>	<u>Moodys Rating</u>	<u>Margin (p.a.)</u>																	
A- or greater	A3 or greater	0.45%																	
BBB+	Baa1	0.60%																	
BBB	Baa2	0.75%																	
BBB-	Baa3	0.90%																	
BB+ or smaller	Ba1 or smaller	1.15%																	
If the issuer is a creditor or debtor	Debtor																		
Warrants	Vale S.A. corporate guarantee, when the line is taken by Vale Canada and Vale International entities. When the Company is the taker, no guarantees.																		
Termination or extinction conditions	General early maturity conditions for similar financing of this nature, subject to materiality, exceptions and healing periods, as applicable, including, but not limited to: (i) default of payment, (ii) cross-acceleration with other creditors, (iii) false representations, (iv) acknowledging in writing its inability to pay its debts (v) default of covenants, among others.																		
Nature and Reasons for the operation / other relevant information	Revolving credit line with commercial banks. This instrument represents an additional source of liquidity and can be used by Vale and some of its subsidiaries at any time in the useful life of the instrument. The line was fully disbursed in March 2020, and paid in full in September of the same year.																		

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	06/19/2015
Amount involved (R \$)	Not applicable
Existing balance (R\$)	Not applicable
Amount of the related party	BNDES is entitled to 1/3 (one third) of the economic rights coming from the Alemão Project.
Duration	The contract will remain in force (i) for the duration of the obligation to indemnify the Parties; or (ii) until Vale's obligation to pay Vale's royalty ceases; or (iii) by agreement in writing, between the Parties.
Loan or other type of debt	No
Interest Rate	0.000000
Relationship to issuer	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Regulate the share of the economic rights of BNDES in the event of the implementation by Vale of the Alemão Project, provided for in the "Agreement for an Advance on a Future Shareholding", entered into on 03/05/1985, through the payment by Vale to the BNDES of royalties.</p> <p>The Alemão Project is a Vale project in the region of Carajás, in the State of Pará, which has not yet been approved, which aims to produce copper concentrate.</p> <p>In accordance with the "Agreement for an Advance on a Future Shareholding", BNDES is entitled to 1/3 (one third) of the economic rights coming from the Alemão Project. Thus, BNDES' participation in this project</p>

	<p>was regulated by paying royalty, which was determined using an economic model with market assumptions.</p> <p>The royalty will be paid annually by Vale at the beginning of the sale of the Copper Concentrate of the German Project.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None.
Termination or extinction conditions	The royalty payments shall be transferred: (i) if the Alemão Project exploration activities cease, at Vale's discretion; (ii) loss of ownership, by Vale or by any assignee permitted under the Contract, of DNPM Process no. 851,431/82; or (iii) the depletion of mineral reserves in the areas covered by DNPM Process no. 851,431/82.
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	03/28/2008
Amount involved (R \$)	808,350,800.00
Existing balance (R\$)	473,776,312.10
Amount of the related party	Not applicable
Duration	9/15/2029
Loan or other type of debt	Yes
Interest Rate	0.00000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Financing for the implementation of the Hydroelectric Power Plant - UHE Estreito.</p> <p>The applicable interest rates are: TJLP+1.46% p.a. (subloans A and B) and TJLP (subloan C).</p> <p>The principal value of Subcredits A and B will be amortized in 216 successive monthly instalments, the first installment is due on 10/15/2011 and the last on 09/15/2029. The value of subcredit C has already been settled.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>BNDES may declare early maturity, with the debt being demanded and the immediate withdrawal of any disbursement, if, in addition to the conditions provided for in articles 39 and 40 of the "PROVISIONS APPLICABLE TO BNDES CONTRACTS", BNDES can prove:</p> <p>a) the reduction of Vale's staff without offering a training program and/or employee relocation program in other companies;</p> <p>b) the inclusion, in a company agreement, its articles of organization or articles of incorporation of Vale or a company which controls it, by means of which a special "quorum" is required to deliberate or approve matters that limit or curtail control of any of these companies by their controlling shareholders, or, in those documents that:</p> <p>i) restrict Vale's growth capacity or its technological development;</p> <p>ii) restrict Vale access to new markets; or</p> <p>iii) restrict or losses on the ability to pay the financial obligations arising from this transaction;</p> <p>c) constitute, with the prior authorization of the BNDES, collateral of any kind in transaction with other creditors, without guarantees of the same quality being provided to BNDES, with the same payment priority;</p> <p>d) do not maintain, during the term of the contract, the following indices:</p> <p>- Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the financial years of 2015 and 2016 will the index of 5.5 prevail); and</p> <p>- Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0.</p> <p>And, in the event of failure to comply with these indices, not within 60 days from the date of written communication, collateral, accepted by the</p>

	<p>BNDES, for an amount corresponding to at least 130% of the value of the debt.</p> <p>In the event that funds granted under the Contract are used for a purpose other than the implementation of the UHE Estreito Hydroelectric Plant and its transmission system, BNDES, without prejudice to the foregoing, shall notify the Federal Public Prosecutor, for the purposes and effects of Law No. 7,492, dated 06.16.86.</p> <p>The Contract will also expire early, with the debt demanded and immediate suspension of any disbursement, on the certification date as a Federal Deputy or Senator, for a person who carries out a remunerated function at Vale, or is among its owners, controllers or directors, persons involved in the prohibitions provided for by the Federal Constitution, article 54, items I and II. There will be no default charges, provided that it is paid within 5 (five) business days from the certification date, otherwise the charges for the early maturity due to default will be incurred.</p> <p>The change in Vale's indirect control, during the term of the Agreement, is excluded from the conditions for early maturity.</p>
Nature and Reasons for the operation / other relevant information	BNDES direct financing for the implementation of UHE Estreito. The operation presented competitive rates in the year of contracting.

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	5/19/2014
Amount involved (R \$)	2,527,103,000.00
Existing balance (R\$)	409,958.78
Amount of the related party	Not applicable
Duration	07/15/2024
Loan or other type of debt	Yes
Interest Rate	0.00000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Financing for the implementation of a mining unit and an iron ore processing unit, with capacity for 90 million tons/year, for the exploration of the S11D field, in the municipality of Canaã dos Carajás (PA)</p> <p>The applicable interest rates are: TJLP + 1.96% p.a. (subcredit A), Basket of Currencies +1.96% (subcredit B) and TJLP (subcredit C). The applicable interest rates are: TJLP+1.46% p.a. (subloans A and B) and TJLP (subloan C).</p> <p>The principal value of Subcredits A and B was settled.</p> <p>The principal value of Subcredit C will be amortized in 84 successive monthly instalments, winning the first installment on 15/07/2017 and the last on 15/06/2024.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>BNDES may declare early maturity, with the debt being demanded and the immediate withdrawal of any disbursement, if, in addition to the conditions provided for in articles 39 and 40 of the "PROVISIONS APPLICABLE TO BNDES CONTRACTS", BNDES can prove:</p> <p>a) the reduction of Vale's staff without offering a training program and/or employee relocation program in other companies;</p> <p>b) the existence of an unappealable judgement relating to acts carried out by Vale, which impinge on a crime against the environment or violate the legislation that deals with the fight against race or gender discrimination, child labor and slave labor, unless the remedy is imposed or while the judgement imposed on Vale is being fulfilled, subject to due legal process;</p> <p>c) the inclusion, in a corporate agreement, statute or corporate contract of Vale as a device by which a special "quorum" is required for the resolution or approval of matters that limit or restrict its control, or, further, the inclusion in those documents of a device that imports in:</p> <p>i) restrict Vale's growth capacity or its technological development;</p> <p>ii) restrict Vale access to new markets; or</p> <p>iii) restrict or losses on the ability to pay the financial obligations arising from this transaction;</p>

	<p>d) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, collateral, accepted by BNDES, for an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <ul style="list-style-type: none"> - Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the financial years of 2015 and 2016 will the index of 5.5 prevail); and - Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0. <p>In the event that Vale's indirect control has changed, without prior authorization from the BNDES, it does not present a letter of guarantee issued according to the BNDES model.</p> <p>In the event of application of the resources granted by the Contract for purposes other than that provided for.</p> <p>The Contract will also expire early, with the debt demanded and immediate suspension of any disbursement, on the certification date as a Federal Deputy or Senator, for a person who carries out a remunerated function at Vale, or is among its owners, controllers or directors, persons involved in the prohibitions provided for by the Federal Constitution, article 54, items I and II. There will be no default charges, provided that it is paid within 5 (five) business days from the certification date, otherwise the charges for the early maturity due to default will be incurred.</p> <p>The change in Vale's indirect control during the term of the contract is excluded from the assumptions of early maturity.</p>
Nature and Reasons for the operation / other relevant information	Financing for the implementation of a mining unit and an iron ore processing unit, with capacity for 90 million tons/year, for the exploration of the S11D field, in the municipality of Canaã dos Carajás (PA)

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	12/26/2008
Amount involved (R \$)	7,300,000,000.00
Existing balance (R\$)	2.127,604,086.55
Amount of the related party	Not applicable
Duration	12/15/2028
Loan or other type of debt	Yes
Interest Rate	1.5000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Credit Line.</p> <p>The applicable interest rates are: Libor 3M+1.5% p.a. (subcredits A1, A2, A3, A4, A5, A6, A7, A8), TJLP (subcredits B4, B11, B15), TJLP + 1.36% p.a. (subcredits B2, B3, B6, B7, B9, B10, B13 and B14). TJLP + 1.76% p.a. (subcredit B1, B5, B8 and B12), IPCA + 2.98% + 1.52% p.a. (subcredits A9, B16 and B18).</p> <p>The amortizations are monthly and successive and vary according to the undercredit of the contract, the last being 12/15/2028.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>BNDES may declare early maturity, with the debt being demanded and the immediate withdrawal of any disbursement, if, in addition to the conditions provided for in articles 39 and 40 of the "PROVISIONS APPLICABLE TO BNDES CONTRACTS", BNDES can prove:</p> <ul style="list-style-type: none"> a) the reduction of Vale's staff without offering a training program and/or employee relocation program in other companies; b) the existence of an unappealable judgement relating to the acts carried out by Vale, which violate the legislation that deals with the fight against discrimination of race or gender, child labor and slave labor; c) the inclusion, in a company agreement, its articles of organization or articles of incorporation of Vale or a company which controls it, by means of which a special "quorum" is required to deliberate or approve matters that limit or curtail control of any of these companies by their controlling shareholders, or, in those documents that: <ul style="list-style-type: none"> i) restrict Vale's growth capacity or its technological development; ii) restrict Vale access to new markets; or

	<p>iii) restrict or losses on the ability to pay the financial obligations arising from this transaction;</p> <p>d) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, collateral, accepted by BNDES, for an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <ul style="list-style-type: none"> - Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the financial years of 2015 and 2016 will the index of 5.5 prevail); and - Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0. <p>In the event that Vale's indirect control has changed, without prior authorization from the BNDES, it does not present a letter of guarantee issued according to the BNDES model.</p> <p>In the event that funds granted under the Contract are used for a purpose other than provided for in Clause One: revolving credit limit, BNDES, without prejudice to the foregoing, shall notify the Federal Public Prosecutor, for the purposes and effects of Law No. 7,492, dated 06.16.86.</p> <p>The Contract will also expire early, with the debt demanded and immediate suspension of any disbursement, on the certification date as a Federal Deputy or Senator, for a person who carries out a remunerated function at Vale, or is among its owners, controllers or directors, persons involved in the prohibitions provided for by the Federal Constitution, article 54, items I and II. There will be no default charges, provided that it is paid within 5 (five) business days from the certification date, otherwise the charges for the early maturity due to default will be incurred.</p>
Nature and Reasons for the operation / other relevant information	<p>This is a line of credit to finance the Salobo I and II Projects, Onça Puma Mining, Plant VIII and Itabira Capital Projects. The subcredits of the Capital Itabira Project were refinanced in December 2018, changing the interest rate and maturity of the contract.</p>

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	09/24/2012
Amount involved (R \$)	3,882,956,000.00
Existing balance (R\$)	796,610,354.41
Amount of the related party	Not applicable
Duration	9/15/2022
Loan or other type of debt	Yes
Interest Rate	1.300000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Financing for the implementation of the North Logistics System Training Program (CLN), aiming to increase the transport capacity of ore from 115 million tons per year (Mtpa) to approximately 150 Mtpa.</p> <p>The applicable interest rates are: TJLP + 1.30% p.a. (subloans A, B, C, D and E), 2.50% p.a. (subloans F and G) and TJLP (subloans H).</p> <p>The amortizations are monthly and successive and vary according to the Subcredit of the contract, the last being on 09/15/2022.</p> <p>Subcredit A - 107 installments Subcredit B, C and F - 101 installments Subcredit D - 110 installments Subcredit E - 95 installments Subcredit G - 83 installments Subcredit H - 86 installments</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>BNDES may declare early maturity, with the debt being demanded and the immediate withdrawal of any disbursement, if, in addition to the conditions provided for in articles 39 and 40 of the "PROVISIONS APPLICABLE TO BNDES CONTRACTS", BNDES can prove:</p> <p>a) the reduction of Vale's staff without offering a training program and/or employee relocation program in other companies;</p>

	<p>b) the existence of an unappealable judgement relating to the acts carried out by Vale, which violate the legislation that deals with the fight against discrimination of race or gender, child labor and slave labor;</p> <p>c) the inclusion, in a company agreement, its articles of organization or articles of incorporation of Vale or a company which controls it, by means of which a special "quorum" is required to deliberate or approve matters that limit or curtail control of any of these companies by their controlling shareholders, or, in those documents that:</p> <p>i) restrict Vale's growth capacity or its technological development;</p> <p>ii) restrict Vale access to new markets; or</p> <p>iii) restrict or losses on the ability to pay the financial obligations arising from this transaction;</p> <p>d) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, collateral, accepted by BNDES, for an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <p>- Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the financial years of 2015 and 2016 will the index of 5.5 prevail); and</p> <p>- Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0.</p> <p>In the event that Vale's indirect control has changed, without prior authorization from the BNDES, it does not present a letter of guarantee issued according to the BNDES model.</p> <p>If the funds granted by the Contract are used for a purpose other than that provided for in Clause One: the implementation of the North Logistics System (CLN) Development Program, aiming to increase the ore transport capacity from 115 million tons per year (Mtpa) to approximately 150 Mtpa. The Contract will also expire early, with the debt demanded and immediate suspension of any disbursement, on the certification date as a Federal Deputy or Senator, for a person who carries out a remunerated function at Vale, or is among its owners, controllers or directors, persons involved in the prohibitions provided for by the Federal Constitution, article 54, items I and II. There will be no default charges, provided that it is paid within 5 (five) business days from the certification date, otherwise the charges for the early maturity due to default will be incurred.</p>
Nature and Reasons for the operation / other relevant information	BNDES direct financing aiming to increase the transport capacity of ore from the Carajás Railway from 115 million tons per year (Mtpa) to approximately 150 Mtpa. The operation presented competitive rates in the year of contracting.

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	03/31/1997
Amount involved (R \$)	Not applicable
Existing balance (R\$)	Not applicable
Amount of the related party	Not applicable
Duration	Undetermined - until the object is completely reached. Agreement was amended and consolidated on 06/28/2007.
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	Regulate the relationship between Vale and BNDES in the research of mining rights of deposits with undefined existence, size and economicity in the mineral province of Carajás. The Contract establishes bilateral rules for the purpose of regulating: the conduct of research work by Vale; the cases and the way in which BNDES will provide financial resources to Vale to repay additional expenses arising from research work and payment of the respective administration fee; BNDE's participation rights; the disposal or assignment to third parties of exploratory targets and mining rights; the payment of the finder's fee that will be due by BNDES to Vale.
If the issuer is a creditor or debtor	Not applicable

Warrants	Not applicable
Termination or extinction conditions	Not applicable
Nature and Reasons for the operation / other relevant information	<p>Ensure the right of the Union, through BNDES, to participate in the results of future Vale ventures without registration in its assets, at the time of its privatization.</p> <p>If the research work results in the preparation of a Positive Economic Feasibility Study, Vale must send to BNDES, within 30 days after the approval of its Executive Board, all documents, studies and information necessary for BNDES' evaluation.</p> <p>The assets are divided into two groups, being: (a) Group 1 – Participation rights proportional to research work expenses, limited to 50% for BNDES; and (b) Group 2 - Rights with predefined participation (royalty due to BNDES).</p>

Name of the related party	BNDES Participações S.A. – BNDESPAR
Transaction date	6/23/2015
Amount involved (R \$)	205,538,269.37
Existing balance (R\$)	Not applicable
Amount of the related party	Not applicable
Duration	12/15/2027
Loan or other type of debt	No
Interest Rate	0.00000
Relationship with the Company	BNDES Participações S.A. - BNDESPAR was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>VLI S.A. Stock Option Purchase Agreement ("<u>Agreement</u>") held by Vale S.A. entered into with BNDESPAR. Under the aforementioned agreement, 140,239 options to purchase VLI S.A. shares were granted to BNDES, which may be exercised as of December 18, 2017 until December 15, 2027.</p> <p>This contract stems from the agreements signed between Vale and BNDESPAR that resulted in the conclusion on June 23, 2015 of the amendment to the deeds of the Private Debenture Emissions for Financing of the expansion project of the North South Railway - FNS.</p> <p>In December 2020, the Company was notified by BNDESPAR of the full exercise of the option to purchase 8% of the shares of VLI held by Vale. With the exercise of this option, Vale received US\$241 (R\$1,223 million), and had 29.6% of VLI's total shares.</p>
If the issuer is a creditor or debtor	Not applicable
Warrants	None.
Termination or extinction conditions	In the event of non-compliance with any financial or non-financial obligation assumed by Vale, VLI or FNS in the Contract, the provisions of Articles 39 to 47-A of the "Provisions Applicable to BNDES Contracts" shall be complied with.
Nature and Reasons for the operation / other relevant information	This option could be exercised, in whole or in part, upon payment of the exercise price to the Company, considering the terms, conditions and other limitations existing in the Agreement, at any time and at the creditor's free discretion, from December 2017 and until the expiration date of the debentures, in December 2027.

Name of the related party	Banco Bradesco S.A., succeeded by CIBRASEC - Companhia Brasileira de Securitização
Transaction date	3/24/2015
Amount involved (R \$)	700,000,000.00
Existing balance (R\$)	914,562,095.39
Amount of the related party	Not applicable
Duration	4/20/2022
Loan or other type of debt	Yes
Interest Rate	0.0000
Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.

Object of the contract	<p>CCB used as a ballast for CRI, to finance projects under S11D Logística, in the Port Complex of Ponta Madeira.</p> <p>The applicable interest rate is TJLP + 8.8% p.a. in reais</p> <p>Principal payment in 5 installments on 04/20/2018, 04/20/2019, 04/20/2020, 04/20/2021 and 04/20/2022</p>
If the issuer is a creditor or debtor	Debtor
Warrants	<p>Fiduciary disposal of 0.0623% (94,319.31 m²) of the property subject to registration No. 13,521 of the Property Registry Notary Office of the District of Itabira/MG.</p> <p>Aval da Docepar S.A.</p>
Termination or extinction conditions	<p>EARLY MATURITY</p> <p>a) non-payment, by the Issuer, of the Principal Amount, the Remuneration or the Mandatory Early Settlement amount within two Business Days after the date on which such a payment becomes due; b) failure to comply with any other pecuniary obligation not mentioned in item "a" above, within 15 calendar days after the date on which such a payment becomes due; c) non-compliance, by the Issuer, with any non-pecuniary obligation, principal or accessory, assumed in this Certificate or in the Fiduciary Disposal Agreement, not remedied within 60 days of that non-compliance (if another remedy period has not been expressed and specifically provided for), provided that non-compliance causes a Material Adverse Effect; d) in the event that the Fiduciary Disposal becomes effective, its effects become extinct or materially limited before full settlement of the obligations arising from this Certificate, whether by nullity, annulment, termination, repudiation, information, mutual rescission or for any other reason attributable exclusively to the Issuer, or if the Fiduciary Disposal becomes illegal and/or insufficient to ensure payment of the obligations contained in this Certificate and provided that the Fiduciary Disposal is not replaced, reinforced or supplemented in the manner provided in the Fiduciary Disposal Agreement; e) in the event that the Issuer or the Surety practices or lodges, any acts or measures, judicial or extrajudicial, that aim to annul, question, review, cancel, repudiate, suspend or invalidate the Surety and/or any of the obligations of the Guarantor under this Certificate, as the case may be; f) a statement of early maturity in relation to the obligations of the Issuer arising from any contracts or instruments to which it is subject, showing outstanding financing in the local or international market, in an individual or aggregate amount, equal to or greater than R\$ 250,000,000, updated annually, as of the Disbursement Date, by the positive variation of the General Price Index - Market, published by Fundação Getúlio Vargas ("IGPM"), or its equivalent in other currencies, as long as it is legally recognized or uncontested/defended by the Issuer; g) settled, dissolved or terminated by the Issuer; h) (h.1) adjudication of bankruptcy of the Issuer; (h.2) voluntary bankruptcy filed by the Issuer; (h.3) filing for bankruptcy of the Issuer, sought by third parties, not rebutted within the legal term; or (h.4) petition for court-supervised reorganization or out-of-court reorganization of the Issuer; i) change in the corporate purpose of the Issuer, as provided in its articles of incorporation in force on the Disbursement Date, provided that, as a result, the Issuer ceases to engage in mining activities; and proof that any of the statements made by the Issuer on this Certificate is false or incorrect in any material respect.</p> <p>PERMISSIVE EARLY REDEMPTION</p> <p>The Certificates may be redeemed early after three years as of the Issue Date, observing the terms contained in that Certificate.</p>
Nature and Reasons for the operation / other relevant information	<p>Financing for civil works in the logistic projects at the Port Complex of Ponta Madeira.</p> <p>Agreement transferred on the issue date to CIBRASEC - Companhia Brasileira de Securitização.</p>

Name of the related party	Banco Bradesco S.A.
Transaction date	08/28/2018
Amount involved (R \$)	R\$ 725,286,391.03
Existing balance (R\$)	R\$ 25,406,118.42
Amount of the related party	Not applicable
Duration	12/31/2023
Loan or other type of debt	No
Interest Rate	0.000000

Relationship with the Company	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>Provision of the issue and management of corporate credit cards to use in Brazil and abroad.</p> <p>The payment of the contract is according to consumption (on demand), and there is no commitment/obligation to use by Vale. Monthly payments to the vendor are calculated from the amounts spent on the cards.</p> <p>Additionally, it should be emphasized that the contract was signed on 08/28/2018, effective from 01/01/2019. The amount involved refers to Vale and the Group's companies. The balance as of 12/31/2020 does not include added value.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	Not applicable
Termination or extinction conditions	<p>The Agreement may be resolved at any time and by either Party upon written notice at least 180 days in advance, without any claim, indemnification or compensation for the benefit of the Party receiving the notice of resolution.</p> <p>Without prejudice to fulfilling its other rights, either Party may terminate the Agreement by written notice to the other Party, with immediate effect, without any claim, indemnity or compensation of the benefit by the Party receiving the termination notice, in the following cases:</p> <ul style="list-style-type: none"> a) application or decree of bankruptcy or judicial or extrajudicial reorganization of the other Party; b) occurrence of fortuitous case or force majeure regularly proven, which will paralyze the execution of the object for more than 30 days; c) in the event that the fines imposed on the other Party reach 10% of the value of the average of three revenues; d) material non-compliance with the applicable legislation on health and safety at work or the environment, Vale's internal standards, as well as the applicable environmental licenses and their conditions; and/or e) fraud or malice committed by a Party in a manner related to the fulfilment of its contractual obligations. <p>The Agreement may be resolved automatically and immediately, without any notice, if contractor makes use of slave or child labor or any other working conditions that adversely meet human dignity.</p> <p>Without prejudice to the satisfaction of its other rights, Vale may resolve the Agreement, upon prior communication at least 60 days in advance, in the following cases:</p> <ul style="list-style-type: none"> a) non-compliance with any of the obligations of the contract that ceases to be remedied within 30 days after receiving notification from Vale to this effect; and/or b) assignment and/or partial or total transfer to third parties of the obligations assumed, or the credits arising from the Contract, without prior and express authorization by Vale. <p>Without prejudice to the satisfaction of its other rights, Contractor may resolve the Contract, upon prior communication at least 60 days in advance, in the following cases:</p> <ul style="list-style-type: none"> (a) late payments for more than 60 days; b) delay in the availability of information that has proven to compromise the regular fulfillment of the obligations assumed in the Contract, which is not remedied within 30 days after receiving notification by Contractor in this regard; and/or c) non-compliance with any of Vale's contract obligations that directly results in contractor's impediment to continue the regular fulfillment of its contractual obligations, which is not remedied within 30 days of receiving notification from contractor in this regard.

Nature and Reasons for the operation / other relevant information	The commercial conditions contracted follow the market conditions, as confirmed in the competitive process carried out at the time of the contract, with Bradesco having the most competitive proposal.
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Name of the related party	VLI Multimodal S.A.
Transaction date	08/09/2013
Amount involved (R\$)	5,381,262,874.20
Existing balance (R\$)	36,811,500.73
Amount of the related party	Not applicable
Duration	06/29/2057
Loan or other type of debt	No
Interest Rate	0.000000
Relationship to issuer	Company of the VLI Group, in which Vale S.A. holds 29.6% of the shares
Object of the contract	<p>Provision of rail transport services.</p> <p>The consumption of the Contract occurs through useful ton transported and the payment takes place weekly between the railways. There is no fixed amount defined for that service agreement.</p> <p>The amount entered in the "amount involved" field corresponds to the historical value performed in the contract from 2014 until December 31, 2020.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	The agreement provides for compensation for theft, loss or damage of goods and will be dealt with in a specific case and, if due, will be settled within 60 (sixty) days after receiving the request for indemnification. The price to be considered will be that declared in the invoice at the time of transportation.
Termination or extinction conditions	<p>The contract may be terminated by either party by giving written notice to the other party, without the right to any claim, indemnity or compensation being due, to the benefit of the party in respect of which the resolution was requested, due to the resolution, in the following cases:</p> <p>(i) non-compliance by the other party with any obligation provided for in the contract, except if the non-compliance is remedied and if the defaulting party corrects it within ninety (90) days after receipt of written notice, from the creditor of the obligation, to this effect;</p> <p>(ii) application or decree of insolvency, bankruptcy or court-supervised or out-of-court reorganization of the other party;</p> <p>(iii) proven occurrence of Government authority act, Act of Administration, fortuitous event or of force majeure, that paralyzes the execution of the Contract for more than 180 days (one hundred and eighty) days; and</p> <p>(iv) change in the direct or indirect corporate control of one of the parties, subject to the provisions of item 16.2.1 of the agreement.</p>
Nature and Reasons for the operation / other relevant information	General cargo rail transport.

Name of the related party	Baovale Mineração S.A.
Transaction date	10/10/2001

Amount involved (R \$)	938,155,758.56
Existing balance (R\$)	85,744,679.72
Amount of the related party	Not applicable
Duration	20 years (up to 10/18/2021)
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Subsidiary of the Shared Control
Object of the contract	<p>Leasing of mining rights to the Minas Gerais Clean Water Complex, as well as equipment, vehicles and other movable property necessary for the mining operation, and fixed facilities (industrial buildings, sheds and buildings in general).</p> <p>The amount is paid annually, in two installments, the first in January, in the amount of 1% of the total amount, and the second in December, in the amount of 99% of the total value. The contract is adjusted annually according to the variation of the IGP-M/FGV - General Market Price Index.</p> <p>The "amount involved" corresponds to the historical value performed in the contract from 2001 until December 31, 2020.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>The contract may be terminated:</p> <ul style="list-style-type: none"> - due to a fortuitous event or force majeure, pursuant to art. 1,058 and sole paragraph of the Civil Code; - as agreed by the parties; - by resolution, by one of the parties, due to a breach of an obligation by the other; - bankruptcy or bankruptcy proceedings by either party.
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Companhia Hispano Brasileira de Pelotização – Hispanobrás
Transaction date	05/16/2012
Amount involved (R \$)	2,321,422,228.48
Existing balance (R\$)	118,959,000.00
Amount of the related party	Not applicable
Duration	12/31/2021
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Affiliate
Object of the contract	<p>Lease agreement. Vale leased the Hispanobrás pelletizing plant, by paying a fixed and a variable portion according to the performance of the assets. Term of the contract is three years, successively renewable for the same period.</p> <p>Leasing of industrial assets is part of the new business model chosen by shareholders for being able to capture synergies and reduce inefficiencies, ensuring better profitability and return to shareholders.</p> <p>The maturity of the Fixed Installment occurs until the last working day of July of each year and the variable installment until the last business day of January of the following year.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>Historical Values of the last three years (Total Value - Fixed + Variable): 2018 - R\$ 639,117,236.35, of which R\$ 16,621,202.28 in fixed installment 2019 - R\$ 477,838,602.06, of which R\$ 17,876,452.08 in fixed installment 2020 - R\$ 207,964,441.43, of which R\$ 19,184,632.93 in fixed installment</p> <p>The existing balance considers the amounts provided for the contract, devalued from interest because it considers the present value of the balance as of 12/31/2020.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	Either party shall have the right not to continue the lease after the three-year period, provided that it sends the other party a written notice at least one year before the end of that period. The terms for renewal of the contract are

	under negotiation between the parties. The current notification deadline is 06/30/2021.
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	Companhia Nipo Brasileira de Pelotização – Nibrasco
Transaction date	04/30/2008
Amount involved (R \$)	6.334,914,669.69
Existing balance (R\$)	686,364,000.00
Amount of the related party	Not applicable
Duration	12/31/2022
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Affiliate
Object of the contract	<p>Lease Agreement. Vale leased the two Nibrasco pelletizing plant, by paying a fixed and a variable portion according to the performance of the assets. Term of the contract is three years, successively renewable for the same period.</p> <p>Leasing of industrial assets is part of the new business model chosen by shareholders for being able to capture synergies and reduce inefficiencies, ensuring better profitability and return to shareholders.</p> <p>The maturity of fixed and variable installments occurs until the last working day of December of each year, with complement or return of value until the last working day of February of the following year.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>Historical Values (Total Value - Fixed + Variable): 2018 - R\$ 1,479,003,197.14, of which R\$ 82,445,225.76 in fixed installment 2019 - R\$ 1,053,760,625.44, of which R\$ 88,681,571.68 in fixed installment 2020 - R\$ 95,160,468.60, of which R\$ 95,160,468.60 in fixed installment</p> <p>The existing balance considers the amounts provided for the contract, devalued from interest because it considers the present value of the balance as of 12/31/2020.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	Either party shall have the right not to continue the lease after a period of three years provided that it sends the other party written notice at least one year before the end of that period.
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Ferrovia Norte Sul S.A. (through the Carajás Railroad - EFC)
Transaction date	01/01/2015
Amount involved (R \$)	1,202,131,584.17
Existing balance (R\$)	2,061,311.32
Amount of the related party	None
Duration	07/29/2057
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Company of the VLI Group, in which Vale S.A. holds 29.6% of the shares
Object of the contract	Specific Operational Contract, with the purpose (i) to carry out specific operations in mutual traffic and/or right of way; (ii) improve overall operational efficiency for rail transport and the best conditions and attractiveness, in relation to users in general, in order to enable the increase of rail transport between the parties;(iii) maintain a high standard of relationship between the parties, so that it is possible to expand the

	<p>fulfillment of the demands for transport of cargo in their areas of influence, inducing the economic development of the regions served, all according to the concession contracts, as well as in strict compliance with the technical standards and regulations applicable to the matter; and (iv) consider as a junction site between the two railways the courtyard of the Açailândia station, in the State of Maranhão, operated by Vale, where the exchange of railway compositions will be made with cargo dispatched in mutual traffic.</p> <p>Contract consumption occurs through the number of trains that pass from FNS - Ferrovia Norte Sul - to EFC - Carajás Railway. Specific Operational Contract</p> <p>The estimated value of that contract on the date of its closure on July 29, 2027, is R\$ 1,202,131,584.17 described in the contract amount.</p> <p>The balance of R\$ 755,474,329.21 refers to the amount still available for its consumption until its maturity.</p> <p>During the year 2020, a total of R\$ 106,805,881.78 was invoiced in this contract.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	The Contract may be terminated by either Party, upon notice, notification or judicial or extrajudicial challenge, within 30 days, only in case of non-compliance by either Party of any provision of the Contract and provided that the defaulting Party, upon receipt of prior notice, in writing and with proof of receipt, identifying the default, fails to remedy its default within 90 days. In the event of termination, the Parties shall proceed in accordance with the legislation in force.
Nature and Reasons for the operation / other relevant information	Sharing of railway infrastructure.

Name of the related party	VLI Multimodal S.A., Ferrovia Centro Atlântica S.A. and Ferrovia Norte-Sul S.A.
Transaction date	08/09/2013
Amount involved (R \$)	0.00
Existing balance (R\$)	Not applicable
Amount of the related party	Not applicable
Duration	7/29/2027
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Vale S.A. owns 29.6% of VLI S.A. shares, and other companies that are part of the VLI Group
Object of the contract	<p>Option to Buy and Sell Subject to Future Events. Vale will pay VLI, in the case of the exercise of the purchase option, prices determined by the residual value carried by VLI, considering the maintenance and improvements accounted for and the depreciation due to time.</p> <p>For the classification of one or more assets as reversible assets:</p> <p>1- The price to be paid for the assets will be the indemnity paid by the Granting Party to Vale, and FCA and FNS will be entitled to receive the amount never lower than the nominal value originally paid for each asset;</p> <p>2 - if the amount of indemnity paid by the Granting Party is less than the price paid by Vale to FCA and FNS, Vale shall refund, to Vale, the difference, respecting the rule set forth in item "i" above.</p>
If the issuer is a creditor or debtor	Not applicable

Warrants	Not applicable
Termination or extinction conditions	<p>There is no penalty for termination.</p> <p>Note. Option linked to the validity of the Contract for the Provision of Rail Freight Services and Related Services concluded between Vale and VLI on 12/07/2010.</p> <p>FCA and FNS own the wagons and locomotives ("Assets"), indispensable for providing the services, object of the Transportation Contract, which is why FCA and FNS have leased the Assets to Vale in an exclusive and irreversible manner for the term of the Transportation Contract.</p> <p>Vale may acquire some or all of the Assets only when one of the following conditions are met:</p> <p>a) As determined by the Granting Party in this sense; b) Termination of the Concession Contracts for any reason; c) Termination of the Transportation Contract for any reason; d) application or decree of insolvency, bankruptcy or court-supervised or out-of-court reorganization of VLI Multimodal, FCA and/or FNS; e) Non-compliance by VLI Multimodal, FCA and/or FNS with any obligation set forth in the LIABILITIES AGREEMENT, except if the latter fails to remedy the non-compliance within a period of 15 calendar days after the receipt of written notice to this effect sent by VALE; f) If there is any third-party lawsuit, in a court or administrative proceeding, affecting one or more Assets or the creation of any liens or encumbrance thereon, if the situation is not remedied by VLI Multimodal, FCA and FNS, as applicable, within 20 days; and g) If VLI Multimodal, FCA and FNS, for any reason, removes one or more Assets transferred from the possession of VALE without the express agreement of this and ANTT, in writing, if the situation is not remedied by VLI Multimodal, FCA and FNS, as applicable, within 20 days.</p>
Nature and Reasons for the operation / other relevant information	Instrument of Purchase and Sale Agreement Subject to Future Event.

Name of related party	VLI Multimodal S.A.
Transaction date	07/01/2012
Amount involved (R\$)	8,385,616,086.23
Existing balance (R\$)	34,176,877.34
Amount of related party	Not applicable
Duration	09/23/2039
Loan or other type of debt	No
Interest Rate	0,000000
Relationship with the Company	Company of the VLI Group, in which Vale S.A. holds 29.6% of the shares
Object of the contract	<p>Provision of Port Services for Cargo and Related Services in the Praia Mole Private Terminal for Mixed Use, in the Terminal of Miscellaneous Products and at the Graneis Líquidos Terminal. On November 29, 2013 the Parties entered into the first amendment to the contract in order to ensure improvements in contractual management and control of compliance with contractual obligations.</p> <p>The consumption of this contract occurs through the calculation of the total costs executed in the month, where the invoice of the service provision with a fortnightly payment period occurs.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p>

	<p>The estimated value of this contract on the date of its closure, on September 23, 2039, is R\$ 8,385,616,086.23.</p> <p>During 2020, a total of R\$ 222,611,356.41 was invoiced in this contract</p>
If the issuer is a creditor or debtor	Creditor
Guarantees and insurance	Not applicable
Conditions of termination or extinction	<p>Non-compliance by the other party with any obligation under the contract, unless the defaulting party remedies the non-compliance within 90 calendar days of receipt of written notification to that effect sent by the creditor party of the obligation.</p> <p>Application or decree of insolvency, bankruptcy or judicial or extrajudicial reorganization of the other party.</p> <p>Proven occurrence of Factum Principis, Administrative Omission, as defined in the contract, if fortuitous or force majeure, that will paralyze the execution of the contract for more than 180 calendar days.</p> <p>Change of corporate control, direct or indirect, of one of the parties.</p> <p>Resolutive Fine R\$80,615,659.69. Value subject to IGPM update.</p>
Nature and Reasons for operation/other relevant information	Provision of Services from Vale to VLI Multimodal for general cargo handling in order to allow VLI Multimodal customers to be serviced by port terminals, aiming at the search for efficiency, excellence and enhancement of the relationships and services offered jointly, with increased volume movement in the terminals and consequent increase of results
Name of the related party	Companhia Coreano Brasileira de Pelotização – Kobrasco
Transaction date	05/06/2008
Amount involved (R \$)	3.975,644,420.29
Existing balance (R\$)	223,876,000.00
Amount of the related party	Not applicable
Duration	08/31/2033
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Affiliate.
Object of the contract	<p>Lease Agreement. Vale leased the Kobrasco pelletizing plant, by paying a fixed and a variable portion according to the performance of the assets. The initial contract term was 5 (five) years renewable successively for the same period. At the last renewal, a period of 15 (fifteen) years was agreed, that is, valid until 2033, with automatic renewals of 10 years.</p> <p>Leasing of industrial assets is part of the new business model chosen by shareholders for being able to capture synergies and reduce inefficiencies, ensuring better profitability and return to shareholders.</p> <p>The maturity of the Fixed and Variable Installment occurs until the last business day of December of each year, with complement or return of value until the last working day of February of the following year.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>Historical Values of the Last Three Fiscal Years (Total Value - Fixed + Variable):</p> <p>2018 - R\$ 834,909,940.77, of which R\$ 47,192,015.52 in fixed installment 2019 - R\$ 618,352,577.31, of which R\$ 50,756,003.76 in fixed installment 2020 - R\$ 151,266,657.30, of which R\$ 54,470,277.36 in fixed installment</p> <p>The existing balance considers the amounts provided for the contract, devalued from interest because it considers the present value of the balance as of 12/31/2020.</p>
If the issuer is a creditor or debtor	Debtor

Warrants	None
Termination or extinction conditions	Either party shall have the right not to continue the Lease after the period of fifteen (15) years, provided that it sends the other party a written notice at least one year before the end of that period.
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Companhia Ítalo Brasileira de Pelotização – Itabrasco
Transaction date	9/30/2008
Amount involved (R \$)	2,800,562,965.94
Existing balance (R\$)	194,081,000.00
Amount of the related party	Not applicable
Duration	06/30/2022]
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Affiliate
Object of the contract	<p>Lease Agreement. Vale has leased the Itabrasco pelletizing plant, paying a fixed installment and another variable due to the performance of the assets. Initial term of the contract is ten (10) years and three (3) months. The Contract was extended until 06/30/2022.</p> <p>Leasing of industrial assets is part of the new business model chosen by shareholders for being able to capture synergies and reduce inefficiencies, ensuring better profitability and return to shareholders.</p> <p>The maturity of the fixed installment (4 equal installments) occurs until the last working day of each quarter and the Variable Installment occurs until the last business day of December of each year, with complement or return of value until the last working day of February of the subsequent year.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>Historical Values of the Last Three Fiscal Years (Total Value - Fixed + Variable):</p> <p>2018 - R\$ 717,586,039.40, of which R\$ 21,196,297.32 in fixed installment 2019 - R\$ 383,845,731.54, of which R\$ 22,797,062.76 in fixed installment 2020 - R\$ 134,081,261.52, of which R\$ 24,465,329.04 in fixed installment</p> <p>The existing balance considers the amounts provided for the contract, devalued from interest because it considers the present value of the balance at 12/31/2020.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	The contract is valid until 06/30/2022 and the parties must reach an agreement on the renewal or extension of term until 12/31/2021.
Nature and Reasons for the operation / other relevant information	Not applicable

Name of the related party	Samarco Mineração S.A.
Transaction date	04/12/2004
Amount involved (R \$)	11,037,037,794.27
Existing balance (R\$)	0.00
Amount of related party (R\$)	11,037,037,794.27
Duration	20 years valid until 12/31/2026
Loan or other type of debt	Not applicable
Interest Rate	0.0000
Relationship with the Company	50% Shareholder
Object of the contract	<p>Sale by Vale, of material currently non-usable, such as <i>run-of-mine</i> (ROM) to Samarco.</p> <p>Because the contract is in force majeure, there are no conditions to update the contract value on the date of December 31, 2020.</p>

	<p>The Contract establishes the annual quantities to be provided and the prices charged vary over the duration of the contract, as they are defined and impacted based on the market conditions and specificities of the pricing agreed with the client.</p> <p>On the date of this Reference Form, the contract remains unsupplied and with its balance zeroed due to the declaration of Force Majeure due to the rupture of the Samarco dam in November 2015, and there are no amounts to be received under said Agreement.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None.
Termination or extinction conditions	In the event of default for more than 90 days, bankruptcy, reorganization, insolvency, or court-supervised or extrajudicial dissolution, stoppage of supplies or receipts for more than 90 days, by order of the competent authority, fortuitous event or force majeure for more than 90 days, non-compliance to any un-remedied clause within 30 days.
Nature and Reasons for the operation / other relevant information	Not applicable.

Name of the related party	MRS Logística S.A.
Transaction date	01/01/2011
Amount involved (R \$)	21,100,000,000.00
Existing balance (R\$)	249,222,865.38
Amount of the related party	Not applicable
Duration	11/30/2026
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	Affiliate
Object of the contract	<p>The purpose of the normal contract is the provision, by MRS to VALE, of a iron-ore railroad service, from the iron-ore terminals called the Andaime Terminal, the Córrego do Feijão Terminal, the Água Santa Terminal, the Olhos D'Água Terminal, Sarzedo Novo Terminal - TCS (Sarzedo Loading Terminal), Sarzedo Terminal, Alberto Flores Terminal, Souza Noschese Terminal, Juiz de Fora Terminal located in the State of Minas Gerais, and any other Terminals that may be used - for which the transport conditions will be negotiated at the time - to the Guaíba, CPBS, CSA and Patrag unloading terminals, where the first three are located in the State of Rio de Janeiro and the last one in Minas Gerais (Ouro Branco).</p> <p>The consumption of the contract occurs according to the useful ton transported. Payment takes place weekly between companies.</p> <p>The estimated value of that contract on the date of its closure on November 30, 2026 is R\$ 21,534,464,000.00.</p> <p>The "amount involved" corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>During 2020, revenue stemming from this contract totaled R\$ 1,451,105,554.74.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	<p>During the term of the Agreement, VALE will guarantee MRS the minimum payment at 85% (eighty-five percent) of MRS's Scheduled Annual Revenue, based on adjusted annual volumes.</p> <p>MRS shall take out Optional Civil Liability Insurance for personal and material damages caused to third parties, at its own expense, to pay the costs of the corresponding policies, from which copies must be taken and sent to VALE together with the general conditions of the respective insurance.</p>
Termination or extinction conditions	The contract may be terminated, by right, by either party, by written notification to the other party, if, together or not, any of the following events occur:

	<p>1. Failure by any party to comply with any clause, condition or provision of the contract, provided that the non-compliance is not remedied within 60 (sixty) consecutive days of the above-mentioned notice;</p> <p>2. Adjudication of bankruptcy, deferral of a petition for court-supervised or out-of-court reorganization, dissolution or liquidation, declared or approved, of any of the parties;</p> <p>3. By determination of the Granting Authority, suspension by the competent authorities of the service, or by the termination of the MRS concession;</p> <p>4. If MRS unjustifiably terminates the service, in whole or in part, without the prior and express written notice or consent of Vale, for more than 10 consecutive days or 30 (thirty) alternate days;</p> <p>5. Suspension of the service, due to a fortuitous event or force majeure, for a period exceeding 60 (sixty) days;</p> <p>6. If one of the parties transfers the contract, without prior written knowledge and agreement of the other party, observing Clause Eighteen.</p>
Nature and Reasons for the operation / other relevant information	Iron Ore rail transport at MRS. Contract with guarantee of minimum volume of 85% of the volume budgeted in the year (<i>Take or pay</i>).

Name of the related party	Norte Energia S.A
Transaction date	12/10/2012
Amount involved (R \$)	2.801,993,245.22
Existing balance (R\$)	45,179,912.83
Amount of the related party	100%
Duration	30 years, up to 08/26/2045
Loan or other type of debt	No
Interest Rate	0.000000
Relationship to issuer	Affiliate
Object of the contract	<p>Contract for energy supply by Norte Energia S.A. to Vale S.A. with annual adjustment by the IPCA.</p> <p>The "amount involved" corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p> <p>The Amount Involved is calculated by the product between volume, price and period of energy contracted during the entire performance of the contract until [December 31, 2020.</p>
If the issuer is a creditor or debtor	Not applicable
Warrants	Insurance Guarantee
Termination or extinction conditions	The contract may be terminated in the event of bankruptcy, revocation of any legal authorization, total or partial non-compliance with any obligation under the contract.
Nature and Reasons for the operation / other relevant information	Electricity supply for Vale's operations in Brazil

Name of the related party	Aliança Geração de Energia S.A to Vale S.A.
Transaction date	02/27/2015
Amount involved (R \$)	3,058,697,717.12
Existing balance (R\$)	51,202,343.13
Amount of the related party	100%
Duration	21 years, until 07/09/2036

Loan or other type of debt	No
Interest Rate	0.000000
Relationship to issuer	Shared Control
Object of the contract	<p>Contract for Aliança Energia S.A. to supply energy to Vale SA, with annual IPCA adjustment. Contract composed of grouping of 7 contracts related to the supply of energy by aliança through 7 hydroelectric plants in its portfolio. The object, conditions and price of contracts are the same. They differ from each other depending on the volume to be delivered by each plant and the end term of the contract which is equal to the concession deadline of each enterprise. The Amount Involved and Existing Balance fields are the sum of this information for each of the 7 contracts. The Duration field reflects the longer contract term.</p> <p>The "amount involved" corresponds to the amount performed from the beginning of the contract until December 31, 2020, being calculated by the product between volume, price and period of energy contracted throughout the performance of the contract until December 31, 2020.]</p>
If the issuer is a creditor or debtor	Not applicable
Warrants	None.
Termination or extinction conditions	The contract may be terminated in the event of bankruptcy, revocation of any legal authorization, total or partial non-compliance with any obligation under the contract, for events of fortuitous case or force majeure.
Nature and Reasons for the operation / other relevant information	Electricity supply for Vale's operations in Brazil

Name of the related party	Banco Nacional de Desenvolvimento Econômico e Social – BNDES
Transaction date	01/06/1997
Amount involved (R \$)	76,251,999.65
Existing balance (R\$)	482,029,249.31
Amount of the related party	Not applicable
Duration	03/31/2021
Loan or other type of debt	Yes
Interest Rate	0.000000
Relationship to issuer	BNDES Participações S.A. - BNDESPAR, a wholly owned subsidiary of BNDES, was a signatory to the Company's Shareholders' Agreement.
Object of the contract	<p>Enable the development and implementation of the project for the use of mineral reserves from the deposits of Salobo Metais S.A.</p> <p>The applicable interest rate is: IGP-DI + 6.50% p.a.</p> <p>Annual amortization from 03/30/2017 to 03/30/2021</p> <p>Contract added on September 25, 2017.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	Vale's corporate guarantee
Termination or extinction conditions	Not applicable
Nature and Reasons for the operation / other relevant information	<p>Debentures issued by Salobo Metais S.A., privately, which were fully subscribed by the National Bank for Economic and Social Development (BNDES). BNDES holds debentures issued by Salobo Metais S.A., with a right to subscribe to Salobo preferred shares in exchange for part of the outstanding debentures, a right that expires two years after Salobo reaches an accumulated revenue equivalent to 200,000 tons of copper. For further information, refer to item 18 of this Reference Form.</p>

Name of the related party	Samarco Mineração S.A.
Transaction date	August 03, 2016
Amount involved (R \$)	2,950,126,543.00
Existing balance (R\$)	0
Amount of the related party	0
Duration	Maturities until 01/31/2022
Loan or other type of debt	Yes
Interest Rate	0.000000
Relationship to issuer	50% Shareholder

Object of the contract	<p>Private issuance of 2,950,126,343 simple debentures, not convertible by Samarco at a nominal unit value of R\$1.00.</p> <p>The applicable interest rate is Libor + 1.15% pa.</p> <p>The "amount involved" specified above considers the value provided for in the 8 private issuances referred to in this field "object of the contract". The "transaction date" is the oldest date on 12/31/2020. The "duration" specified above considers the date of the last maturity of the 6 private issuances referred to this field "object of the contract".</p> <p>The recoverable value of these debentures actually acknowledged in Vale's consolidated financial statements for the fiscal year ended on December 31, 2020 is equivalent to zero.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None. Nevertheless, within 90 days of obtaining the last license required for the resumption of Samarco's operational activities; or together with the provision of a guarantee for the benefit of any of its bank creditors, whichever occurs first, the Debentures should be converted to the "collateralized" type.
Termination or extinction conditions	<p>The following are circumstances of Early Maturity of the referred to issuance:</p> <ul style="list-style-type: none"> (a) Non-fulfillment by the Issuer of any pecuniary obligation due under the terms of the Deed, not remedied within 5 business days; (b) Default by the Issuer under the terms of any bond instruments and/or any financial contracts in which the Issuer is listed as a "Borrower" or loan taker, including debentures under the Issue subscribed by BHP, which is not remedied in its respective period of cure; (c) Default by the Issuer of any pecuniary obligations contracted in the local or international financial market, even if in the condition of guarantor, that are not remedied in their respective periods of cure; (d) Event of early maturity declared within the scope of the Issue subscribed by BHP; (e) Any amendment to the provisions of the deed in the scope of the Issue subscribed by BHP without the prior consent of Vale; (f) Failure by BHP to make the disbursement under the Issue subscribed by BHP after the applicable cure period, or Samarco's waiver of any of its rights under the Issue subscribed by BHP without Vale's prior consent, as provided in Clause 3.15. 7 of the Deed; (g) Confirmation that the statements provided in the Deed by the Issuer are false, misleading, incorrect or incomplete in any material respect; (h) Transfer or any form of assignment or promise to third parties by the Issuer of the obligations assumed in the Deed; (i) Request for judicial or extrajudicial recovery or self-bankruptcy formulated by the Issuer or decree of bankruptcy of the Issuer or any decision or judicial request to restructure or renegotiate debts with creditors or, also, any act similar to the previous ones
Nature and Reasons for the operation / other relevant information	Due to Samarco's cash constraint, its operations were cut after the Fundão dam rupture in November 2015, its shareholders (Vale and BHP) have been providing financial support to Samarco through debentures since the second half of 2016. The emission conditions apply to both shareholders (Vale and BHP).

Name of the related party	COMPANHIA SIDERÚRGICA DO PECÉM – CSP
Transaction date	02/07/2018
Amount involved (R \$)	4,786,954,016.79
Existing balance (R\$)	56,509,875,147.20
Amount of the related party	Not applicable
Duration	01/31/2036
Loan or other type of debt	No
Interest Rate	0.00
Relationship to issuer	Related company.
Object of the contract	The Contract establishes the annual quantities of iron ore and pellets to be supplied and the prices charged vary throughout the term of the

	<p>contract, as they are defined and impacted based on the market conditions and specificities of the pricing agreed with the client.</p> <p>The amount involved corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None.
Termination or extinction conditions	The contract may be terminated in case of non-compliance with contractual obligations by either party, in the event of bankruptcy, force majeure for a period of more than 180 consecutive days, if the shareholders' agreement in force is terminated with respect to Vale or Vale no longer owns at least 10% of CSP's shares.
Nature and Reasons for the operation / other relevant information	CSP is an integrated steel plate plant in the state of Ceará, in partnership with Dongkuk Steel Mill Co. ("Dongkuk") and Posco, two of South Korea's largest steel producers. CSP's annual production capacity is 3.0 million metric tons.

Name of the related party	Pangea Emirates Limited
Transaction date	03/27/2017
Amount involved (R \$)	4,269,058,066.83
Existing balance (R\$)	7,099,471,705.00
Amount of the related party	Not applicable
Duration	Maturities until 07/24/2034
Loan or other type of debt	Yes
Interest Rate	7.4900
Relationship to issuer	Mitsui agreed with Vale to participate in the <u>Moatize project</u> and the <u>Nacala Corridor rail & port infrastructure project</u> , in which Vale has been operating and developing in Mozambique. In the course of the participation, Mitsui acquired all shares of PANGEA, a financing company for Vale's Moatize project.
Object of the contract	<p>6 Fixed-Term Loan Credit Lines concluded on 04/29/2016 between Pangea and Vale. The applicable fees on contracts are: 10% p.a. (LVI_13), 5% p.a. (LVI_41) and Libor 6M + 6% p.a. (LVI_3).</p> <p>The interest rate is calculated using the weighted average of the rates applicable to the 6 credit lines.</p> <p>The principal debt must be amortized in 174 successive monthly instalments, the first installment due on 10/29/16 and the last on 07/24/2034.</p> <p>The balance of R \$ 7,099,471,705.00 refers to Vale Moçambique, while the balance of R \$ 848,646,791.48 refers to the Nacala Corridor (which cannot be included in the field above, due to system restrictions).</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None

Nature and Reasons for the operation / other relevant information	Project of the Moatize coal mine (" <u>Moatize project</u> ") and the <u>Nacala Corridor rail & port infrastructure project</u> , in which Vale has been operating and developing in Mozambique.
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Name of the related party	Nacala Corridor Holding Netherlands B.V.
Transaction date	12/15/2011
Amount involved (R \$)	5,800,000,000.00
Existing balance (R\$)	12,831,487.323.74
Amount of the related party	Not applicable
Duration	12/30/2034
Loan or other type of debt	Yes
Interest Rate	5.7800
Relationship to issuer	Shared Subsidiary
Object of the contract	<p>45 Fixed Term Loan Credit Lines concluded on 12/15/2011 between concessionaires (CDN, CLIN, VLL, CEAR and SDCN) / Vale and Nacala BV. The applicable fees on contracts are: 10% p.a., 5% p.a., Libor 6M + 6% p.a., Libor 6M + 7% p.a., Libor 6M + 5.5% p.a. and 1% p.a. The principal debt must be amortized in 630 successive monthly instalments, the first due on 05/21/2012 and the last on 12/30/2034. The "existing balance" comprises only the amount consolidated by Vale S.A.</p> <p>In 2020, the Company conducted the impairment test of the balance of loan receivable and recognized an impairment loss related to these loans receivable in the amount of R \$ 4,106 million due to the revision of the projections of the volume of coal transported through the corridor logistics center.</p>
If the issuer is a creditor or debtor	Others
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Financing of the Moatize coal mine project and the Nacala Corridor project.

Name of the related party	COMPANHIA SIDERÚRGICA DO PECÉM – CSP
Transaction date	04/22/2015
Amount involved (R \$)	4,328,525,000.00
Existing balance (R\$)	4,557,889,702.28
Amount of the related party	N/A
Duration	09/30/2031
Loan or other type of debt	N/A
Interest Rate	N/A
Relationship to issuer	Related company.
Object of the contract	<p>Vale S.A. Corporate Guarantee for CSP financing in proportion to its 50% shareholding.</p> <p>The PTAX rate of 12/31/2020 of 5.1967 was used to convert the guaranteed amounts from Dollar to Reais.</p>
If the issuer is a creditor or debtor	N/A
Warrants	Yes
Termination or extinction conditions	Hypothesis of triggering the warranty: Beneficiary (CSP) does not pay the financial charges or principal value on the dates of their respective maturities in debt contracts
Nature and Reasons for the operation / other relevant information	Support project funding

Name of the related party	Alelo S.A.
Transaction date	11/26/2018
Amount involved (R \$)	1,340,934,754.03

Existing balance (R\$)	150,428,485.67
Amount of the related party	Not applicable
Duration	12/31/2023
Loan or other type of debt	No
Interest Rate	0.000000
Relationship with the Company	ALELO is an entity controlled by Banco Bradesco S.A. Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>Provision of service of supply and administration of benefit cards, called "ALELO CARDS" (food voucher, meal voucher, snack voucher, Christmas basketvoucher, toy voucher and basket voucher for non-employees).</p> <p>The payment of the contract is according to consumption (on demand), with no commitment/obligation to use by Vale.</p> <p>Additionally, it should be emphasized that the contract was signed on 11/26/2018, effective from 01/01/2019.</p> <p>The "amount involved" corresponds to the amount performed from the beginning of the contract until December 31, 2020.</p>
If the issuer is a creditor or debtor	Debtor
Warrants	None
Termination or extinction conditions	<p>Either Party is provided to terminate the Agreement upon written notice at least 240 days in advance. In this case, the Party that has reported the Contract to the other Party shall be due to the compensatory fine to be calculated as set forth below:</p> <ul style="list-style-type: none"> i. Up to 12 months: fine equivalent to 5% on the average value of the last 06 revenues; ii. Between the 13th and 24th month: fine equivalent to 4% on the average value of the last 06 revenues; iii. From the 25th month: fine equivalent to 3% on the average value of the last 06 revenues. <p>Without prejudice to the satisfaction of its other rights, either Party may resolve the Agreement by written communication to the other Party, without any claim, indemnification or compensation for the benefit of the Party receiving the notice of resolution, in the following cases:</p> <ul style="list-style-type: none"> a) application or decree of bankruptcy, dissolution, liquidation or judicial or extrajudicial reorganization of the other Party; b) observing the provisions of Clause Twelve, occurrence of fortuitous case or force majeure regularly proven, which will paralyze the execution of the purpose for more than 30 days, or if proven, from the outset, as capable of delaying the fulfillment of the Contract indefinitely, either party may opt for termination, satisfying reciprocal obligations due, up to the date of such impediment; (c) non-compliance with any of the provisions of instrument or the legal and regulatory provisions to which it is subject, if not provided within 30 days from the date of receipt of the notification sent by the compliant party to the defaulting party, or within a period agreed by the parties at the time; d) by Vale in the event that contractor does not comply with the provisions of the Suppliers Code of Conduct, when applicable, and does not share the principles and values of Vale's Sustainability Policy and Human Rights Policy, whose documents are part of the Agreement, as annexed; e) in the event of proven fraud or decommissioning by the Defaulting Party. <p>In the event of a resolution motivated by either Party, in the event of items (c), (d) and (e) above, the Party giving cause to it shall be responsible for a resolution fine of 1% on the value of the calculation of the previous month, updated according to variation of the IGP-M/FGV – General Market Price Index from the date of knowledge by the other Party of the event generating the resolution until the date of effective payment of said fine, without prejudice to any losses and damages. It is already established that this penalty is cumulative to the other penalties of the Agreement.</p> <p>Without prejudice to the satisfaction of its other rights, Vale may, in its sole discretion, resolve the Agreement and/or any other contract signed between Vale and/or its subsidiaries and/or affiliates, directly or indirectly, and the</p>

	<p>contractor and/or its parent company, controlled and/or affiliated, directly or indirectly, upon prior and express communication to the contractor, with immediate effect, without the contractor and/or its parent company, its subsidiaries and/or affiliates, directly or indirectly, the right to any claim, indemnification or compensation due to resolution, in any case, in the case of:</p> <p>a) fraud or malice committed by the contractor in a manner related to the fulfillment of its contractual obligations;</p> <p>(b) the use of slavery or child labour or any other working conditions that offends human dignity;</p> <p>c) material non-compliance with the applicable legislation on health and safety at work or the environment, in particular Vale's internal standards, as well as the applicable environmental licenses and their conditions;</p> <p>d) intellectual property infringement; and/or</p> <p>e) violation of the provisions of the anti-corruption clause(s).</p> <p>In the event of a resolution motivated by either Party, in the event of items (c), (d) and (e) above, the Party giving cause to it shall be responsible for a resolution fine of 1% on the value of the measurement of the previous month, updated according to variation of the IGP-M/FGV – General Market Price Index from the date of knowledge by the other Party of the event generating the resolution until the date of effective payment of said fine, without prejudice to any losses and damages. It is already established that this penalty is cumulative to the other penalties of the Agreement.</p>
Nature and Reasons for the operation / other relevant information	Not applicable

16.3 - Identification of measures taken to deal with conflicts of interest and demonstration of the strictly commutative nature of the agreed conditions or appropriate compensatory payment

a. identify the measures taken to address conflicts of interest

Conflict of Interest and Management of the Company

In accordance with Vale's Bylaws, it is up to the Board of Directors to decide on policies to avoid conflicts of interest between Vale and its shareholders or directors, as well as on the adoption of measures deemed necessary in the event of conflicts of this nature. Furthermore, the Bylaws provide that transactions with related parties must be carried out under commutative conditions, observing market conditions, as well as that members of the Board of Directors with interests potentially conflicting with those of the company should be excluded from the decision-making process.

The Board of Directors approved, on December 19, 2013, the creation of the Related Party Transactions Policy, revised on January 28, 2021, which establishes guidelines and principles to ensure that the transfer, free of charge or burdensome, of resources, services or obligations involving persons and/or companies with which Vale has the possibility to contract under conditions other than those of independence that characterize transactions with third parties ("Related Parties" and "Transactions with Related Parties", respectively), are conducted within market parameters, valuing the best corporate governance practices, with due transparency, prioritizing Vale's best interests, avoiding abuse and misuse of the company's assets. This policy applies to Vale, its joint ventures and entities, in which Vale has significant influence, to Vale's shareholders, Vale's directors and controlling shareholders, as well as to persons who have a relationship with the Company's directors and controlling shareholders. For more information on the Related Party Transaction Policy, see item 16.1 of this Reference Form.

Pursuant to the Bylaws, it is up to the Audit Committee to evaluate, monitor and recommend to management the correction or improvement of the company's internal policies, including the Related Party Transaction Policy.

Within the framework of the Related Parties Transaction Policy, the mechanism described below was formalized to identify and resolve conflicts of interest in the Meetings of the Board of Directors and the Executive Board, applying to the hypotheses of the constant rules in Brazilian legislation:

- I. the member of the Board of Directors or Board of Executive Officers of Vale who has a conflict of interest must immediately express their conflicting private interest. If this is not done, another person may express the conflict;
- II. as soon as the conflict of interests is identified in relation to a specific topic, the member of the Board of Directors or Board of Executive Officers of Vale involved shall not receive any document or information on the matter and shall leave, even physically, from the discussions, without neglecting their legal duties. The statement of conflict of interests, abstention and temporary removal should be recorded in the minutes;
- III. in the event of Transactions with Related Parties involving a shareholder who is a signatory to the Shareholders' Agreement and, therefore, a member of Vale's control block, the member(s) of the Board of Directors indicated by the Board of Directors shall not receive any document or information on the matter and shall, even physically, depart from the discussions, requesting the recording, in the respective minutes, of the reason for their removal. That Board member shall return to the resolution to cast their vote, observing

the provisions of the Shareholder Agreement, and the applicable legal provisions;

- IV. if requested by the Chairman of the Board of Directors or the Chief Executive Officer, as the case may be, the members of Vale's Board of Directors or Executive Board involved in a conflict of interest may participate in part in the discussion, in order to provide further information on the Transaction with Related Party subject to resolution. In this case, they should be absent from the final part of the discussion.

Any violation of the provisions of the Related Party Transaction Policy will be considered a violation of the Company's Code of Conduct, and will be subject to the procedures and penalties set forth therein. In addition, the infringer will also be subject to the penalties provided for by law, in addition to being liable for losses and damages caused to Vale and third parties.

In addition, the Company's Code of Conduct provides that the members of the Board of Directors, the Advisory Committees, the Fiscal Council, Directors, employees and interns, controlled companies (provided that the local legislation is observed) shall always defend Vale's interests in the matters in which they are participating and avoid situations in which conflicts of interest may occur with Vale's own interests and, when not possible, refrain from representing Vale in the matter in question, communicating the fact to the immediate superior.

Violations of the provisions contained in Vale's Code of Conduct, rules and disciplinary guidelines subject violators to disciplinary penalties, considering the nature and severity of the offense, always observing Vale's human resources standards and applicable legislation.

b. demonstrate the strictly commutative nature of the agreed conditions or the appropriate compensatory payment

Transactions concluded with related parties are based on prior and judicious evaluations of their terms, so that they are carried out under strictly commutative conditions, observing the prices and normal market conditions. In this way, transactions with related parties do not generate any undue benefits or losses to the companies involved.

To verify the commutability of transactions with related parties, the Company analyzes the financial viability of each transaction vis-à-vis similar transactions in the market between non-related parties. The Company uses comparative methods of analysis.

Transactions with related parties of the Company may generally be divided between: (i) transactions of an operational nature; and (ii) financial transactions.

As part of its operational activities, Vale carries out a substantial volume of transactions with its subsidiaries and companies with control shared with third parties, in view of its policy of integrating activities in the production and commercial chain. In addition to the exploration of minerals, Vale invests in transport, logistics and energy activities, services and supplies necessary to achieve its corporate objective. In this context, several operational contracts are signed between Vale and companies that are members of its economic group, always taking care to observe equal conditions and avoid discrepancies with market conditions, as required by the Brazilian Corporate Law and tax legislation.

With regard to financial transactions, Vale always and dynamically seeks the best options for raising and applying existing resources in the local and international markets. In general, financial investments are carried out in order to keep the Company's liquidity available for its investments coupled with a conservative policy regarding the taking of credit risk of counterparties, focusing on the maintenance of its resources in top-tier banks.

Below are measures observed in the main transactions with related parties mentioned in item 16.2 concluded in the last fiscal year:

- Banco Bradesco S.A. and Bradesco S.A., New York Branch (respectively, bank deposit certificate contracts, time *deposit* and exchange closing). These operations followed the same evaluation, pricing and procedures criteria that guide negotiations made with third parties not related to Vale, regardless of their value and characteristics, and were carried out with a view to offering more attractive conditions than the conditions then offered in the market for this type of operation.
- Banco do Brasil S.A. and Banco do Brasil., New York Branch (bank deposit certificate, *time deposit and* exchange closing contracts). These operations followed the same evaluation, pricing and procedures criteria that guide negotiations made with third parties not related to Vale, regardless of their value and characteristics, and were carried out with a view to offering more attractive conditions than the conditions then offered in the market for this type of operation.
- Banco Bradesco S.A. (export financing agreements, exchange closing, bank guarantees and derivatives). These operations followed the same evaluation, pricing and procedures criteria that guide negotiations made with third parties not related to Vale, regardless of their value and characteristics, and were carried out with a view to offering more attractive conditions than the conditions then offered in the market for this type of operation.
- Banco Bradesco Europa S.A. (contract for the purchase and sale of receivables, dated November 26, 2013). These operations followed the same evaluation, pricing and procedures criteria that guide negotiations made with third parties not related to Vale, regardless of their value and characteristics, and were carried out with a view to offering more attractive conditions than the conditions then offered in the market for this type of operation.

16.4 - Other relevant information - Operations with related parties

Additional information to item 16.2

Materiality Criterion

The transactions listed in item 16.2 followed the materiality criterion equal to or greater than 0.25% of the Company's shareholders' equity on December 31, 2020, that is, equal to or greater than R\$ 452.0 million for individual transactions or a set of related transactions.

In addition, without prejudice to the materiality criterion highlighted above, transactions with related party transactions that are relevant, in other respects, were also included, regardless of the amount involved in such transaction.

Contracts with BNDES

Regarding the transactions with BNDES, Vale informed in item 16.2 the transactions with BNDES that were the subject of disclosure in the Financial Statements of December 31, 2020, observing the materiality criteria above for the purposes of including the Reference Form. Vale clarifies that BNDES ceased to be a shareholder with a relevant stake in Vale in February 2021

Transactions after December 31, 2020

Transactions with relevant related parties entered into by the Company after December 31, 2020 are presented below.

Name of the related party	Mitsui & Co. Ltd
Transaction date	04/19/2021
Amount involved (R \$)	USD 11,00, USD 1,00 per ativo
Existing balance (R\$)	N/A
Amount of the related party	N/A
Duration	Effective until 06/31/2021, which may be extended in good faith by the parties or unilaterally by Vale until 12/31/2022
Loan or other type of debt	No
Interest Rate	N/A
Relationship to issuer	Mitsui, at the time of the transaction, held 5.42% of the Company's share capital
Object of the contract	<p>Establish the main terms for the negotiation of definitive and binding documents for the acquisition by Vale of the totality of Mitsui's interests - 15% in the Moatize coal mine ("Vale Moçambique"), together with 50% interest and all other credits that Mitsui holds in the Nacala Logistic Corridor ("CLN") ("Coal Assets").</p> <p>Main terms of the transaction: (i) Acquisition by Vale of 15% shares held by Mitsui in Moatize Coal Investment (Pty) LTD ("MCI") and of 50% in Nacala Corridor Holding Netherlands BV ("Nacala Corridor") and the financing granted by Mitsui to the subsidiaries of MCI and Nacala Corridor, or option to dilute Mitsui's holdings to close to zero in the amount of USD 1 million each; (ii) Acquisition, by Vale, of 9 financing contracts granted by Mitsui to the subsidiaries of MCI and Nacala Corridor; (iii) Early settlement, by the concessionaires, of Nacala Corridor's project finance, with an estimated balance of USD 2,448 million on 06/22/2021 ("Project Finance"), through financing by Vale; (iv) Assumption by Vale of the guarantees currently provided by Mitsui to the Coal Assets, in the estimated amount of USD 9 million, as well as release of Mitsui in the counter-guarantees in</p>

	<p>favor of Vale, totaling approximately USD 45 million; (v) Replacement of the marketing contract with Mitsui; (vi) Mitsui will be entitled to an "earn-out" in the event of sale of the Coal Assets to third parties within two years after its acquisition, equivalent to 15% of the amount received by Vale that exceeds 85% of the amount spent in prepayment of Project Finance and funds transferred by Vale to the Coal Assets as of January 2021; and (vii) During the term of the contract, Vale undertakes to finance the resource needs of Vale Moçambique and Mitsui suspends the receipt of its financial rights relating to credits arising from the Coal Assets and marketing services.</p> <p>Regarding the field "transaction date", the Heads of Agreement (HoA) was signed on 01/21/2021 and, on 04/19/2021, the Investment Agreement (IA).</p>
If the issuer is a creditor or debtor	Debtor
Warrants	N/A
Termination or extinction conditions	If the terms of the agreement are not fulfilled, it will be terminated.
Nature and Reasons for the operation / other relevant information	Not applicable

Additional Information adicionais to item 16.3

Regarding transactions with relevant related parties entered into by the Company after December 31, 2020, informed in this item 16.4, see below for clarifications regarding the demonstration of the strictly commutative nature of the agreed conditions or the appropriate compensatory payment.

- Transaction with Mitsui in the Coal Business - Heads of Agreement (HoA) (1/21/2021) and Investment Agreement (IA) (4/19/2021):

The value of the operation is supported by the results of the economic and financial evaluations carried out internally and is an important step for Vale to start its process of divesting coal assets, in line with the Company's focus on prioritizing its core businesses and its ESG agenda. , committed to becoming carbon neutral by 2050 and reducing 33% of its scopes 1 and 2 emissions by 2030. In addition, the consolidation of Project Finance will imply that approximately US \$ 300 million per year in operating expenses at the Moatize mine, associated with the CLN tariff and which currently impact the Coal Business EBITDA, be reclassified as financial expenses, debt amortization, investment in maintenance of operations and others, with an equivalent increase in the Coal Business EBITDA.

Within the scope of Vale's decision-making process, the directors appointed by Mitsui did not participate in the deliberation and did not receive any document or information related to the matter for the purpose of recommendation or deliberation on this matter by the competent corporate bodies.

Name of the related party	Banco Bradesco S.A.
Transaction date	04/08/2016
Amount involved (R \$)	8,513,344,579.69
Existing balance (R\$)	4,128,061,466.12
Amount of the related party	Not applicable
Duration	Maturities until 09/13/2023
Loan or other type of debt	No
Interest Rate	95.840604

Relationship to issuer	Bradespar S.A., which was a signatory to Vale's Shareholders' Agreement, and Banco Bradesco S.A. are under common control.
Object of the contract	<p>323 applications contracted by Vale and its subsidiaries (Bank Deposit Certificate).</p> <p>The "amount involved" specified above considers the accumulated value of the financial operations celebrated in 2020 and of the operations started in previous years with a balance in effect on 12/31/2020, resulting in a total of 323 financial investments. It was presenting considering the oldest operation still existing on 12/31/2020. The "duration" specified above considers the last maturity date of the 323 financial investments referred to in this field "object of the contract". The value of the "interest rate" specified above considers the weighted interest rate of the income of the 323 financial investments referred to in this field "object of the contract".</p> <p>The interest rate is calculated by means of the weighted average of the rates applicable to the 323 financial investments, at a rate of 91.47% of the CDI.</p> <p>The applications are readily convertible into cash and are considered with daily liquidity.</p>
If the issuer is a creditor or debtor	Creditor
Warrants	None
Termination or extinction conditions	None
Nature and Reasons for the operation / other relevant information	Not applicable.

17. Capital stock

17.1 - Information on capital

Authorization or approval date	Capital value (in Reais)	Term of payment	Number of common shares (Units)	Number of preferred shares (Units)	Total number of shares (Units)
Type of capital	Issued Capital				
12/21/2017	77,300,000,000,00		5,284,474,770	12	5,284,474,782
Capital stock by share class					
Preferred share class	Number of shares (Units)	Bond			
Preferred Class E	12				
Type of capital	Subscribed Capital				
12/21/2017	77,300,000,000,00		5,284,474,770	12	5,284,474,782
Capital stock by share class					
Preferred share class	Number of shares (Units)	Bond			
Preferred Class E	12				
Type of capital	Paid-up Capital				
12/21/2017	77,300,000,000,00		5,284,474,770	12	5,284,474,782
Capital stock by share class					
Preferred share class	Number of shares (Units)	Bond			
Preferred Class E	12				
Type of capital	Authorized Capital				
06/27/2017	0,00		7,000,000,000	0	7,000,000,000

17.2 - Increases of capital

Justification for not completing the table:

There has been no capital increase of the Company in the last three fiscal years.

17.3 - Information on stock splits, reverse splits and bonuses

Justification for not completing the table:

There have been no stock splits, reverse splits or bonuses over the past three fiscal years.

17.4 - Information on capital reductions

Justification for not completing the table:

There has been no reduction in the Company's capital over the past three fiscal years.

17.5 - Other relevant information

There is no other relevant information that has not been disclosed in the items above.

18. Securities

18.1 - Rights of shares

Type of Share or SDC (UNITS)	Common
Tag along	100.000000
Right to dividends	<p>Under Vale's Articles of Incorporation and the applicable legislation, shareholders holding common shares will be entitled to receive a dividend in proportion to their share in the share capital, after it has been distributed to the preferred shareholders.</p> <p>According to the article 41 of the Articles of Incorporation, at least 25% of the annual profit, adjusted according to the law, will be used to pay dividends.</p>
Voting Right	Full
Convertibility	No
Right to capital reimbursement	Yes
Description of capital reimbursement	Shareholders holding common shares will be entitled to reimbursement of the value of their shares in the cases provided for in applicable legislation, in accordance with the terms and periods set forth therein.
Restricted circulation	No
Conditions for changing the rights guaranteed by such securities	The rights granted to common shares that are not determined by the applicable legislation may be changed by amending the Articles of Incorporation, approved at an Extraordinary Shareholders' Meeting, which may only be held, at a first call, in the presence of shareholders representing at least 2/3 of the voting capital and, at a second call, with any number of shareholders. The amendment shall be approved on the basis of the quorums and conditions provided for in Law No. 6,404 of December 16, 1976, as amended (" <u>Corporate Law</u> ").
Possibility of redeeming Shares	There is no specific statutory provision for the application of profits or reserves in the redemption or amortization of shares.
Other relevant characteristics	The Company's Articles of Incorporation provide, in case of sale of control, the right to sell the shares under the same conditions as the selling controlling shareholder (100% tag along). In addition, the Company's Articles of Incorporation provide for the execution of a public tender in the event of an acquisition that results in ownership of 25% or more of the total common shares issued by the Company or the Company's total capital (excluding treasury shares) or in the event of a delisting from the Novo Mercado. All other characteristics of the common shares issued by the Company that it considers relevant have been stated in the above items. For information on restrictions on the trading of Vale shares by related parties, see the Company's Trading Policy in item 20 of this Reference Form.

Type of Share or SDC (UNITS)	Preferred
Preferred share class	Preferred Class E
Tag along	0.000000
Right to dividends	Preferred shares of special class (golden shares) are entitled to the following rights: a) priority in receiving dividends mentioned in paragraph 5 of Article 5 of Vale's Articles of Incorporation corresponding to (i) at least 3% of the net worth of the share, based on the financial statements that served as reference for the payment of dividends or (ii) 6% calculated on the portion of the capital formed by that class of share, whichever is the greater between them; b) the right to participate in profit distribution, on equal terms with the common shares, once these have been guaranteed a dividend equal to the minimum priority established in accordance with item "a" above; and c) the right to participate in any premiums, on equal terms with the common shares, observing the priority established for the distribution of dividends. For more information, see item 18.12 of this Reference Form.
Voting Right	Restricted
Description of restricted voting	Preferred shares have the same political rights as the common shares, with the exception of the vote for the election of the members of the Board of Directors, which will only be guaranteed to the preferred shares in the cases provided for in Paragraph 4 and Paragraph 5 of Article 141 of the Brazilian Corporations Law. Golden shares are also guaranteed the right to elect and remove a member of the Audit Committee and the respective alternate. The golden shares also have a right of veto on certain matters.
Convertibility	No
Right to capital reimbursement	No
Restricted circulation	Yes
Description of restriction	The preferred shares belong exclusively to the Federal Government.
Conditions for changing the rights guaranteed by such securities	The rights granted to preferred shares that are not determined by the applicable legislation may be changed by amending the Articles of Incorporation, approved at an Extraordinary Shareholders' Meeting, which may only be held, at a first call, in the presence of shareholders representing at least 2/3 of the voting capital and, at a second call, with any number of shareholders. The amendment will be approved based on the quorums and conditions set forth in Brazilian Corporation Law. Also note that under Article 7 of the Articles of Incorporation, preferred shares will have a right of veto over any change in the rights attributed to the types and classes of shares issued by the Company, as well as any modification of article 7 itself, or any of the other rights attributed to preferred shares.
Possibility of redeeming Shares	There is no specific statutory provision for the application of profits or reserves in the redemption or amortization of shares.
Other relevant characteristics	There are no relevant characteristics other than those described above.

18.2 - Description of any statutory rules that limit the right of major shareholders to vote or that require them to make a tender offer

Tender Offer given the Disposal of the Control of the Company

The direct or indirect disposal of control of the Company, either through a single transaction or through successive transactions, must be contracted under the condition that the acquirer of the control undertakes to make a tender offer for the common shares, object of the shares issued by the Company owned by the other common shareholders of the Company, observing the conditions and terms established in the legislation and under the regulations in force and in the Novo Mercado Regulations, so as to ensure them equal treatment to that given to the selling controlling shareholder.

Tender Offer given the Acquisition of a Material Shareholding

Under Vale's Articles of Incorporation, any person, shareholder or group of shareholders that acquires or becomes or has become the owner, for any reason, of shares issued by the Company in a quantity equal to or greater than 25% of the total of the common shares issued by Vale or the total capital, excluding treasury shares, shall, within a maximum period of 30 days from the acquisition date or the event that resulted in the ownership of shares in a quantity equal to or greater than the limit stipulated above, register or request registration of, as the case may be, a tender offer for all of the Company's common shares, observing the provisions of the applicable CVM regulations, the B3 regulations and the terms of the Articles of Incorporation.

The aforementioned tender offer shall be (i) addressed to all shareholders of Vale's common shares, (ii) carried out in an auction to be held at B3, (iii) at a price determined in accordance with the provisions set forth below, and iv) paid in cash, in Brazilian currency, against the acquisition in the tender offer of common shares issued by the Company.

The minimum acquisition price in the tender offer for each common share issued by the Company shall be equal to the higher of ("Minimum Acquisition Price"):

- (i) the economic value calculated in a valuation report. "Economic value" means the value of the Company and its shares that may be determined by a specialized company, using a recognized methodology or based on other criteria that may be defined by the CVM;
- (ii) 120% of the weighted average unit price of the common shares issued by the Company during the 60 trading sessions prior to the tender offer; and
- (iii) 120% of the highest price paid by the acquiring shareholder in the 12 months preceding the acquisition of the relevant shareholding.

The aforementioned tender offer will not exclude the possibility of another shareholder of the Company, or, if applicable, the Company itself, formulating a competing tender offer, in accordance with the applicable regulations.

The person, shareholder or group of shareholders must comply with any ordinary requests or CVM and B3 requirements related to the tender offer, within the maximum periods prescribed in the applicable regulations.

In addition, any person, shareholder or group of shareholders who acquires or becomes holder of other rights, including usufruct or trust, on the common shares issued by the Company in a quantity equal to or greater than 25% of the total common shares issued by Vale or of the total capital, excluding treasury shares, must also, within a maximum period of 60 days from the date of such an acquisition or the event that resulted in the ownership of such rights on common shares in a quantity equal or greater than 25 % of the total common shares issued by the Company or of the total capital, excluding treasury shares, register or request the registration, as the case may be, a tender offer, under the terms described above.

The aforementioned obligations do not apply if a shareholder or group of shareholders becomes the holder of shares issued by Vale in quantities exceeding 25% of the total common shares issued by it or of the total capital, excluding treasury shares, as a result of (a) the merger of another company into Vale, (b) the merger of shares of another company into Vale, or (c) the subscription of Vale shares, issued in a single tranche which was approved by the Company's Annual Shareholders' Meeting, convened by its Board of Directors, and where the proposed capital increase has determined a fixed price to issue the shares based on economic value obtained from an economic and financial valuation of the Company carried out by an institution or specialized company with proven experience in the valuation of publicly-held companies.

For the purpose of calculating the percentage of 25% of the total common shares issued by Vale or of the total capital, involuntary increases in shareholding resulting from the cancellation of treasury shares, from the repurchase of shares or reduction of the Company's share capital with the cancellation of shares, will not be calculated.

Notwithstanding the foregoing, if the CVM regulations applicable to the Tender Offer determine the adoption of a calculation criterion for the determination of the acquisition price of each share of the Company in the Tender Offer that results in a purchase price higher than the Minimum Purchase Price, that acquisition price calculated under CVM regulations shall prevail in the execution of the Tender Offer Price.

In the event that any person, shareholder or Group of Shareholders fails to comply with the obligation of carrying out a public tender offer in accordance with the rules, procedures and provisions set forth above ("Defaulting Shareholder"), including with regard to meeting the maximum deadlines for registering or requesting the registration of the offer, or for meeting any CVM requirements:

- (i) the Board of Directors of the Company shall convene an Extraordinary General Meeting, in which the Defaulting Shareholder may not vote to resolve the suspension of exercising the rights of the Defaulting Shareholder, as provided for in Article 120 of Law 6,404/76; and
- (ii) the Defaulting Shareholder shall, in addition to the obligations to carry out the tender offer in question hereunder, cause the acquisition price of each common share of the Company in the offer to be increased by 15% in relation to the minimum acquisition price for the tender offer.

Delisting from the Novo Mercado

Vale delisting from New Market, either voluntarily, compulsorily or due to a corporate reorganization, must comply with the rules set forth in New Market Regulations.

Without prejudice to the provisions of the Novo Mercado Regulations, voluntary withdrawal from the Novo Mercado must be preceded by a tender offer for the acquisition of shares that complies with the procedures set forth in the regulations issued by the CVM tender offers to acquire the shares to cancel the registration of a publicly-held company and the following requirements:

- (i) the offered price must be fair, and possible, the request for a new valuation of the Company, in the manner established in Law 6,404/76;
- (ii) shareholders holding more than 1/3 of the outstanding shares must accept the tender offer to acquire the shares or expressly agree to delist from the segment without selling the shares.

For the purposes of the foregoing, outstanding shares are considered to be only those shares where the holders expressly agree to the delist from the Novo Mercado or authorize the tender offer to acquire shares, pursuant to the CVM regulations applicable to public offers to acquire publicly-held company to delist.

Voluntary delisting from the Novo Mercado may occur independently of the tender offer mentioned above, in the event of a waiver approved at a general meeting, pursuant to the Novo Mercado Listing Rules.

Additional information

The Company will not record any transfer of common shares to the acquirer or to those who come to hold Control until such time as they fail to comply with the provisions of the Company's Articles of Incorporation. In addition, no shareholders agreement that provides for the exercise of the power of control may be recorder at Vale's head office while its signatories do not comply with the provisions of the Articles of Incorporation.

18.3 - Description of exceptions and suspensive clauses relating to economic or political rights provided for in the internal rules

In the event that any person, shareholder or group of shareholders fails to comply with the obligation of carrying out a public offering in accordance with the rules, the procedures and provisions set forth in the Company's Articles or Incorporation ("Defaulting Shareholder"), including with regard to meeting the maximum deadlines to register or request the registration of the offer, or to meet any CVM requirements, the Board of Directors of the Company shall convene an Extraordinary Shareholders' Meeting, at which the Defaulting Shareholder cannot vote, to decide on the suspension of the exercise of the Defaulting Shareholder's rights, pursuant to the provisions of Article 120 of Law 6,404/76.

18.4 - Trading volume, daily average and higher and lower prices of traded securities

Reporting period 12/31/2020

Quarter	Securities	Cash	Class	Market	Administrative entity	Financial volume traded (Reais)	Daily Quote Average (In Reais)	Higher value quote (Reais)	Quote lower value (Reais)	Quote factor
03/31/2020	Shares	Common Shares		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	84,284,577,585	44.57	52.69	31.32	R\$ per Unit
06/30/2020	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	80,949,942,047	45.24	51.62	37.20	R\$ per Unit
09/30/2020	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	105,986,306,084	55.49	57.92	50.10	R\$ per Unit
12/31/2020	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	125,473,530,472	68.04	84.02	55.81	R\$ per Unit

Reporting period 12/31/2019

Quarter	Securities	Cash	Class	Market	Administrative entity	Financial volume traded (Reais)	Daily Quote Average (In Reais)	Higher value quote (Reais)	Quote lower value (Reais)	Quote factor
03/31/2019	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	1,265,130,863	47.61	54.70	40.51	R\$ per Unit
06/30/2019	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	909,205,738	49.03	52.01	45.20	R\$ per Unit
09/30/2019	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	922,390,703	46.93	52.27	41.70	R\$ per Unit
12/31/2019	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	852,947,376	48.27	53.60	43.94	R\$ per Unit

Reporting period 12/31/2018

Quarter	Securities	Cash	Class	Market	Administrative entity	Financial volume traded (Reais)	Daily Quote Average (In Reais)	Higher value quote (Reais)	Quote lower value (Reais)	Quote factor
03/31/2018	Shares	Common		Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	47,020,805,900	41.35	45.56	38.78	R\$ per Unit

06/30/2018	Shares	Common	Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	53,051,949,000	48.04	54.50	41.36	R\$ per Unit
09/30/2018	Shares	Common	Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	51,293,067,700	52.73	62.20	46.62	R\$ per Unit
12/31/2018	Shares	Common	Stock Exchange	BM&FBOVESPA S.A.–Stock Exchange, Commodities and Futures	64,473,840,500	54.43	61.20	49.50	R\$ per Unit

18.5 - Description of other securities issued in Brazil

Securities	Bonds
Identification of securities	Debentures of the 9th Issue
Date of issue	8/15/2015
Quantity (Units)	1,000,000
Overall nominal value (Reais)	R\$ 1,350,000,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$714,431,205.30
Restricted circulation	No
Convertibility	No
Possibility of redemption	In case it is legally permitted to early redeem the Bonds, under the terms of the applicable legislation, including by virtue of the regulation, by the National Monetary Council, on the possibility of redemption provided by Law 12,431, the Company may, at its exclusive discretion, make an optional early redemption offer, total or partial, for the Bonds in circulation, generally or by series, with the cancellation of such Bonds, which shall be addressed to all Bondholders in equal conditions.
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights guaranteed by such securities	Any modifications to the main conditions of the bonds shall depend on the approval of the bondholders who represent, at least, 90% of the Bonds in circulation.
Other relevant characteristics	The bonds were subject to a public offering made by the Company in Brazil, under the terms of CVM Instruction 400. For information regarding the number of investors in this security, please refer to item 18.12.

Securities	Bonds
Identification of securities	Debentures of the 8th Issue
Date of issue	01/15/2014
Quantity (Units)	1,000,000
Overall nominal value (Reais)	R\$ 1,000,000,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$1,068,701,987.59
Restricted circulation	No
Convertibility	No
Possibility of redemption	In case it is legally permitted to early redeem the Bonds, under the terms of the applicable legislation, including by virtue of the regulation, by the National Monetary Council, on the possibility of redemption provided by Law 12,431, the Company may, at its exclusive discretion, make an optional early redemption offer, total or partial, for the Bonds in circulation, generally or by series, with the cancellation of such Bonds, which shall be addressed to all Bondholders in equal conditions.
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights	Any modifications to the main conditions of the bonds shall

guaranteed by such securities	depend on the approval of the bondholders who represent, at least, 90% of the Bonds in circulation.
Other relevant features	The bonds were subject to a public offering made by the Company in Brazil, under the terms of CVM Instruction 400. For information regarding the number of investors in this security, please refer to item 18.12.

Securities	Bonds
Identification of securities	Shareholder Debentures of the 6th Issue (CVRDA6)
Date of issue	07/08/1997
Quantity (Units)	388,559,056
Overall nominal value (Reais)	R\$3,885,590.56
Debtor balance outstanding on the closing date of the last reporting period	R\$17,736,983,970.46
Restricted circulation	No
Convertibility	No
Possibility of redemption	No
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights guaranteed by such securities	Any modifications to the conditions of the bonds shall depend on the approval of the bondholders who represent the absolute majority of the bonds in circulation. The maturity of the bonds shall occur in the case of extinction of the whole mining rights object of the Indenture, including by reason of the depletion of the mineral reserves listed or those that may replace them. In this case, the Issuer (Vale) undertakes to proceed with the liquidation of the bonds that are in circulation at their updated par value according to the provisions of the Indenture, with no premium.
Other relevant characteristics	Due to restrictions of the system, "Other relevant features" are available in item 18.12 of this Reference Form.

Security	Bonds
Identification of securities	BNDESPAR Debentures - 1st Issue
Date of issue	12/17/2007
Quantity	66.510
Overall nominal value	R\$ 665,100,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$413,663,434.30
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None.
Possibility of redemption	I. Redemption hypotheses: Vale shall early redeem the entirety (and no less than the entirety) of the bonds in circulation within 30 days counted from the occurrence of the following events:

	<p>a) termination of the sub-concession contract entered into between Vale Engenharia, Construções e Ferrovias S.A., a government company, under the form of a corporation, linked to the Ministry of Transportation, and the FNS for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS, resulting from caducity, nationalization, termination, settlement between the parties, annulment of the sub-concession or concession or declaration of the nullity of the administrative bidding procedure; and</p> <p>b) intervention, by the Government, in the sub-concession or in the concession for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS granted upon the FNS.</p> <p>II. Redemption value calculation formula:</p> <p>On the redemption payment date, Vale shall liquidate the bonds that are still in circulation, at their unitary non-amortized par value, added by the non-amortized capitalized amount, as well as the compensatory interest biannually capitalized on the 15th day of the months of June and December of each year for the grace period of 4 years counted from the date of issue and not yet amortized and the compensation at the amount of 0.8% per year above the TJLP, incident up to such date ("Redemption Value").</p> <p>The Redemption Value shall be added by a percentage of 20% in case (i) the termination mentioned in item "a" above results from the caducity of the concession or the sub-concession or also (ii) when the annulment of the aforementioned concession or sub-concession results from an act attributable to Vale Logística or the FNS, as determined by an administrative proceeding.</p>
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights guaranteed by such securities	Any modifications to the conditions of the Bonds in this issuance shall depend on the approval of the bondholders who represent, at least, 50% plus 1 Bond of the Bonds in circulation. For the purposes of establishing a quorum, any bonds that may be owned by Vale shall be excluded from the number of Bonds.
Other relevant features	VALE and BNDESPAR entered into, on June 23, 2015, an amendment to said indenture, so as to exclude (i) the possibility to exchange the Bonds with shares issued by the VLI, as well as exclude the entirety of obligations of the VLI and FNS included in said indenture, granting on BNDESPAR, free of charge, options to purchase a given quantity of common shares issued by the VLI and owned by Vale. The option was fully exercised in December 2020. For more details, see item 16 of this Reference Form.

Security	Bonds
Identification of securities	BNDESPAR Debentures - 2 nd Issue
Quantity	38,520 bonds
Overall nominal value	R\$ 385,200,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$239,577,740.02
Date of issue	10/15/2009
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses:</p> <p>Vale shall early redeem the entirety (and no less than the entirety) of the bonds in circulation within thirty (30) days counted from the occurrence of the following events:</p> <ul style="list-style-type: none"> a) termination of the sub-concession contract entered into between Vale Engenharia, Construções e Ferrovias S.A., a government company, under the form of a corporation, linked to the Ministry of Transportation, and the FNS for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS, resulting from caducity, nationalization, termination, settlement between the parties, annulment of the sub-concession or concession or declaration of the nullity of the administrative bidding procedure; and b) intervention, by the Government, in the sub-concession or in the concession for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS granted upon the FNS. <p>II. Redemption value calculation formula:</p> <p>On the redemption payment date, Vale shall liquidate the bonds that are still in circulation, at their unitary non-amortized par value, added by the non-amortized capitalized amount, as well as the compensatory interest biannually capitalized on the 15th day of the months of June and December of each year for the grace period of 4 years counted from the date of issue and not yet amortized and the compensation at the amount of 0.8% per year above the TJLP, incident up to such date ("<u>Redemption Value</u>").</p> <p>The Redemption Value shall be added by a percentage of 20% (twenty percent) in case (i) the termination mentioned in item "a" above results from the caducity of the concession or the sub-concession or also (ii) when the annulment of the aforementioned concession or sub-concession results from an act attributable to Vale Logística or the FNS, as determined by an administrative proceeding.</p>
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights	Any modifications to the conditions of the Bonds in this

guaranteed by such securities	issuance shall depend on the approval of the bondholders who represent, at least, 50% plus 1 Bond of the Bonds in circulation. For the purposes of establishing a quorum, any bonds that may be owned by Vale shall be excluded from the number of Bonds.
Other relevant features	VALE and BNDESPAR entered into, on June 23, 2015, an amendment to said indenture, so as to exclude (i) the possibility to exchange the Bonds with shares issued by the VLI, as well as exclude the entirety of obligations of the VLI and FNS included in said indenture, granting on BNDESPAR, free of charge, options to purchase a given quantity of common shares issued by the VLI and owned by Vale. The option was fully exercised in December 2020. For more details, see item 16 of this Reference Form.

Security	Bonds
Identification of securities	BNDESPAR Debentures – 3 rd Issue
Date of issue	06/09/2011
Quantity	35,712 bonds
Overall nominal value	R\$ 357,120,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$222,113,194.49
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None.
Possibility of redemption	<p>I. Redemption hypotheses:</p> <p>Vale shall early redeem the entirety (and no less than the entirety) of the bonds in circulation within thirty (30) days counted from the occurrence of the following events:</p> <ul style="list-style-type: none"> a) termination of the sub-concession contract entered into between Vale Engenharia, Construções e Ferrovias S.A., a government company, under the form of a corporation, linked to the Ministry of Transportation, and the FNS for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS, resulting from caducity, nationalization, termination, settlement between the parties, annulment of the sub-concession or concession or declaration of the nullity of the administrative bidding procedure; and b) intervention, by the Government, in the sub-concession or in the concession for the administration and exploration of the public railway cargo transportation service in the Northern and Southern Railroad - FNS granted upon the FNS. <p>II. Redemption value calculation formula: On the redemption payment date, Vale shall liquidate the bonds that are still in circulation, at their unitary non-amortized par value, added by the non-amortized capitalized amount, as well as the compensatory interest biannually capitalized on the 15th day of the months of June and December of each year for the grace period of 4 years counted from the date of issue and not yet amortized and</p>

	<p>the compensation at the amount of 0.8% per year above the TJLP, incident up to such date ("<u>Redemption Value</u>").</p> <p>The Redemption Value shall be added by a percentage of 20% (twenty percent) in case (i) the termination mentioned in item "a" above results from the caducity of the concession or the sub-concession or also (ii) when the annulment of the aforementioned concession or sub-concession results from an act attributable to Vale Logística or the FNS, as determined by an administrative proceeding.</p>
Characteristics of the securities	By virtue of the system restrictions, the "Characteristics of the Securities" are available in item 18.12 of this Reference Form.
Conditions for changing the rights guaranteed by such securities	Any modifications to the conditions of the Bonds in this issuance shall depend on the approval of the bondholders who represent, at least, 50% plus 1 Bond of the Bonds in circulation. For the purposes of establishing a quorum, any bonds that may be owned by Vale shall be excluded from the number of Bonds.
Other relevant features	VALE and BNDESPAR entered into, on June 23, 2015, an amendment to said indenture, so as to exclude (i) the possibility to exchange the Bonds with shares issued by the VLI, as well as exclude the entirety of obligations of the VLI and FNS included in said indenture, granting on BNDESPAR, free of charge, options to purchase a given quantity of common shares issued by the VLI and owned by Vale. The option was fully exercised in December 2020. For more details, see item 16 of this Reference Form.

18.5-A - Number of holders of each type of security described in item 18.5, as determined at the end of the previous year, which are: (i) individuals; (ii) legal entities; (iii) institutional investors.

Justification for not completing the table:

Due to restrictions of the system, the information regarding this item was inserted in item 18.12 of this Reference Form.

18.6 - Brazilian markets in which securities are admitted to trading

The main trading market of common shares with no par value of the Company is B3 S.A. - Brasil, Bolsa, Balcão ("B3"), being traded in the segment of Novo Mercado, under the code VALE3.

The Company's bonds are registered for trading in the secondary market (i) Module CETIP21 - Bonds and Securities, administered and operationalized by CETIP; and (ii) PUMA Trading System BM&FBOVESPA; both administered and operationalized by B3.

18.7 - Information on the class and type of security accepted for trading in foreign markets

Securities	Common stock
Identification of Securities	XVALO
Country	Spain
Securities market	LATIBEX
Market managing entity	Madrid Stock Exchange
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	0.01%
Date of admission to trading	02/08/2000
Listing start date	02/08/2000
Trading segment	Yes
Description of Trading Segment	Stock Exchange
Proportion of certificates of deposit abroad in relation to each class and type of shares	Yes
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	Each XVALO represents 1 common share issued by the Company
Depository Bank	No
Description of the Depository Bank	N/A
Custodian institution	No
Description of the Custodian Institution	N/A
Securities	<i>Bonds</i>
Identification of Securities	VALE26 (reopening)
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	02/06/2017
Listing start date	02/06/2017
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	<i>Bank of New York</i>
Custodian institution	Yes
Description of the Custodian Institution	<i>Bank of New York</i>
Securities	<i>Bonds</i>
Identification of Securities	VALE26
Country	USA
Securities market	New York Stock Exchange
Market managing entity	Securities Exchange Commission - SEC
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	August 10, 2016
Listing start date	August 10, 2016
Trading segment	No

Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	VALE42
Country	USA
Securities market	New York Stock Exchange
Market managing entity	Securities Exchange Commission - SEC
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	September 11, 2012
Listing start date	September 11, 2012
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	VALE39 (reopening)
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	09/15/2010
Listing start date	09/15/2010
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	CVRD35
Country	USA
Securities market	New York Stock Exchange

Market managing entity	Securities Exchange Commission - SEC
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	November 10, 2009
Listing start date	November 10, 2009
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	CVRD36
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	November 21, 2006
Listing start date	November 21, 2006
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	<i>Bank of New York</i>
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	CVRD34B (reopening)
Country	USA
Securities market	New York Stock Exchange
Market managing entity	Securities Exchange Commission - SEC
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	November 02, 2005
Listing start date	November 02, 2005
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York

Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	CVRD34
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	January 15, 2004
Listing start date	January 15, 2004
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	<i>Bank of New York</i>
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>Bonds</i>
Identification of Securities	Vale Canada2032
Country	USA
Securities market	New York Stock Exchange
Market managing entity	Securities Exchange Commission - SEC
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	September 23, 2002
Listing start date	September 23, 2002
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	Bank of New York
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York
Securities	<i>American Depositary Shares (ADSs) / American Depositary Receipts (ADRs)</i>
Identification of Securities	VALE
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	49.94%
Date of admission to trading	03/15/2000
Listing start date	03/15/2000
Trading segment	Yes

Description of Trading Segment	Stock Exchange
Proportion of certificates of deposit abroad in relation to each class and type of shares	Yes
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	Each ADS VALE represents a common share issued by the Company.
Depository Bank	Yes
Description of the Depository Bank	Citibank N.A.
Custodian institution	Yes
Description of the Custodian Institution	Banco Bradesco S.A.
Securities	<i>Bonds</i>
Identification of Securities	VALE30
Country	USA
Securities market	<i>New York Stock Exchange</i>
Market managing entity	<i>Securities Exchange Commission - SEC</i>
Percentage of trading volume abroad in relation to the total trading volume of each class and type in the last accounting year	100%
Date of admission to trading	07/08/2020
Listing start date	07/08/2020
Trading segment	No
Description of Trading Segment	N/A
Proportion of certificates of deposit abroad in relation to each class and type of shares	No
Description of the proportion of certificates of deposit abroad in relation to each class and type of shares	N/A
Depository Bank	Yes
Description of the Depository Bank	<i>Bank of New York</i>
Custodian institution	Yes
Description of the Custodian Institution	Bank of New York

18.8. Bonds issued abroad

Securities	Securities Deposit Certificates
Identification of securities	ADS (American Depositary Shares) VALE
Jurisdiction	United States
Date of issue	March 15, 2002
Quantity (Units)	1,296,277,024
Overall nominal value (Reais)	114,168,166,503.00
Restricted circulation	No
Debtor balance outstanding on the closing date of the last reporting period	0.00
Convertibility	Yes
Condition of convertibility and effects on capital stock	1 ADS VALE corresponds to one common share issued by the Company, and the conversion does not have any effect on the capital stock.
Possibility of redemption	No
Characteristics of debt securities	-
Conditions for changing the rights guaranteed by such securities	None.
Other relevant characteristics	<p>The ADS VALE are traded at the New York Stock Exchange (NYSE), with the code VALE. The ADS are represented by ADR (American Depositary Receipts) issued by the depositary, Citibank N.A.</p> <p>Each ADS VALE corresponds to one common share issued by the Company.</p> <p>In the field "Quantity" above, the outstanding ADSs were considered as of December 31, 2020.</p> <p>The "Global Nominal Value" above was determined considering the number of ADSs informed, the closing price of the ADSs on December 31, 2020, observing the conversion rate for Reais on such date.</p>

18.9 - Public offerings of distribution made by the issuer or by third parties, including controllers and affiliated and controlled companies, related to the issuer's securities

For information on issues of Vale's subsidiaries and affiliates, see item 18.12.

2020

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by Vale S.A. or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

2019

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by Vale S.A. or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

2018

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by Vale S.A. or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

For more information on these issues, see item 18.5 of this Reference Form.

18.10 - Public Offering of Distribution of Securities

- a.** how the resources resulting from the offer were used

For information on issues of Vale's subsidiaries and affiliates, see item 18.12.

2020

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by the Company or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

2019

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by the Company or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

2018

Not applicable, given that in the referred to reporting period no public offerings of distribution were made by the Company or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

For more information on these issues, see item 18.5 of this Reference Form.

- b.** if there were significant deviations between the effective application of resources and the application proposals disclosed in the prospectus of the respective distribution

Not applicable, given that in the last three reporting periods no public offerings of distribution were made by the Company or by a third party, including controllers and affiliated and controlled companies, related to the Company's securities.

- c.** if there were deviations, the reasons for such deviations

Not applicable, as there were no deviations.

18.11 - Description of the acquisition public offerings made by the issuer related to shares issued by third parties

In the last 3 (three) reporting periods, there were no acquisition public offerings made by the Company related to shares issued by third parties.

18.12 - Other relevant information

Additional clarifications to Item 18.5-A

In relation to the information required by Item 18.5-A of Annex 24 of CVM Instruction No. 480/09, the Company clarifies that, despite efforts to do so, it was not possible to obtain segregation among classes of investors for all securities listed in Item 18.5 of this Reference Form with the institutions responsible for this control, due to the inexistence of systems currently reporting reports covering such information.

Nevertheless, for the Debentures of the 9th Issue, Debentures of the 8th Issue and Participative Debentures (CVRDA6), it was possible to obtain from the institutions responsible for this control the total number of investors by security, as described in table below:

Security	Number of Investors (individuals, legal entities and / or institutional investors)
Debentures of the 9th Issue	4,508
8 th Issue Debentures	6,840
Shareholder Debentures of the 6th Issue (CVRDA6)	31,859

Addition Information to Items 18.1, 18.7 and 18.8

Preferred Shares

Due to restrictions of the system, additional information about the class E preferred shares issued by the Company is provided below:

Right to dividends

Preferred shares of special class (golden shares) are entitled to the following rights: a) priority in receiving dividends mentioned in paragraph 5 of Article 5 of Vale's Articles of Incorporation corresponding to (i) at least 3% of the net worth of the share, based on the financial statements that served as reference for the payment of dividends or (ii) 6% calculated on the portion of the capital formed by that class of share, whichever is the greater between them; b) the right to participate in profit distribution, on equal terms with the common shares, once these have been guaranteed a dividend equal to the minimum priority established in accordance with item "a" above; and c) the right to participate in any premiums, on equal terms with the common shares, observing the priority established for the distribution of dividends. According to the Articles of Incorporation, at least 25% of the annual profits, adjusted according to the law, will be used to pay dividends.

Description of restricted voting

Golden shares have the same political rights as the common shares, except for the vote for the election of the members of the Board of Directors, which will only be guaranteed to the golden shares in the cases provided for in Paragraph 4 and Paragraph 5 of Article 141 of the Brazilian Business Corporations Law. Golden shares are also guaranteed the right to elect and remove a member of the Audit Committee and the respective alternate. The golden shares also have a right of veto on the following matters: (i) alteration of the company name; (ii) change of registered office; (iii) change in the corporate purpose with regard

to mineral exploration; (iv) liquidation of Vale; (v) disposal or closure of the activities of any or all of the following stages of Vale's integrated iron ore system: (a) mineral deposits, fields, mines; (b) railways; (c) ports and maritime terminals; (vi) any modification of the rights attributed to the species and classes of shares issued by Vale provided for in the Articles of Incorporation; and (vii) any modification of article 7 of the Articles of Incorporation or any of the other rights granted in the Articles of Incorporation to the golden shares. The golden shares will acquire the full and unrestricted exercise of the voting right if the Company fails to pay, for a period of three consecutive fiscal years, the minimum dividends conferred upon the golden shares, to which they are entitled pursuant to §5, Article 5 of the Company's Articles of Incorporation.

Golden Shares

Regarding the description of right to dividends, special class (golden shares) preferred shares are entitled to the following rights: a) priority in receiving dividends mentioned in paragraph 5 of Article 5 of Vale's Articles of Incorporation corresponding to (i) at least 3% of the net worth of the share, based on the financial statements that served as reference for the payment of dividends or (ii) 6% calculated on the portion of the capital formed by that class of share, whichever is the greater between them; b) the right to participate in profit distribution, on equal terms with the common shares, once these have been guaranteed a dividend equal to the minimum priority established in accordance with item "a" above; and c) the right to participate in any premiums, on equal terms with the common shares, observing the priority established for the distribution of dividends. According to the Articles of Incorporation, at least 25% of the annual profits, adjusted according to the law, will be used to pay dividends.

Regarding the restricted voting description, golden shares have the same political rights as the common shares, except for the vote for the election of the members of the Board of Directors, which will only be guaranteed to the golden shares in the cases provided for in Paragraph 4 and Paragraph 5 of Article 141 of the Brazilian Business Corporations Law. Golden shares are also guaranteed the right to elect and remove a member of the Audit Committee and the respective alternate. The golden shares also have a right of veto on the following matters: (i) alteration of the company name; (ii) change of registered office; (iii) change in the corporate purpose with regard to mineral exploration; (iv) liquidation of Vale; (v) disposal or closure of the activities of any or all of the following stages of Vale's integrated iron ore system: (a) mineral deposits, fields, mines; (b) railways; (c) ports and maritime terminals; (vi) any modification of the rights attributed to the species and classes of shares issued by Vale provided for in the Articles of Incorporation; and (vii) any modification of article 7 of the Articles of Incorporation or any of the other rights granted in the Articles of Incorporation to the golden shares. The golden shares will acquire the full and unrestricted exercise of the voting right if the Company fails to pay, for a period of three consecutive fiscal years, the minimum dividends conferred upon the golden shares, to which they are entitled pursuant to §5, Article 5 of the Company's Articles of Incorporation.

Additional Information to Item 18.5

Maturity and payment of Debentures

According to the Company's Notice to Debenture Holders of August 14, 2020, Vale paid interest and principal on debentures of the 1st Series of the 9th Issue on August 17, 2020, through Banco Bradesco S.A., the liquidating bank of the Debentures. Due to maturity, the Debentures of 1st series of 9th Issue were no longer traded on the market.

However, Vale clarifies that, as the debentures of the 2nd Series of the 9th Issue remain outstanding, with an expected maturity date for August 15, 2022, the tables with information regarding this issue have not been changed.

System Restrictions

Due to restrictions of the system, additional information about the securities issued by the Company is provided below:

Securities	9th Issue of Debentures
Characteristics of the securities	<p>Simple, nominative and book-entry unsecured debentures, in 2 series, of which: (i) the 1st series consists of 800,000 debentures, adjusted for IPCA, with remuneration interest of 6.6232% p.a., and maturity on 08/15/2020; (ii) 2nd series consisting of 550,000 debentures, adjusted for IPCA, with remuneration interest of 6.6252% p.a., and maturity on 08/15/2022.</p> <p><i>Main Events of Automatic Early Maturity:</i> I. default of pecuniary obligation due to the Debenture Holders pursuant to terms of the Deed of Issue, not remedied within 2 business days of the date of default; II. any form of transfer or promise to transfer to third parties, in whole or in part, by the Company, of any of its obligations under terms of the Deed of Issuance, unless previously authorized by Debenture holders representing at least 90% of the outstanding Debentures; III. liquidation, dissolution or termination of the Company, except if liquidation, dissolution and/or extinction results from an operation that does not constitute an Event of Default, in the terms permitted by item VII of "Non-Automatic Early Maturity Events"; and other events provided for in the Deed of Issue.</p> <p><i>Main Events of Non-Automatic Early Maturity:</i> I. default by the Company of any non-pecuniary obligation set forth in the Deed of Issue, not remedied within 60 days of the date of default, except when there is a specific cure period or for any of the other Default Events as defined in the Deed of Issue); II. reduction of the Company's capital stock, unless previously authorized by Debenture Holders representing at least a majority of the outstanding Debentures; III. change in the Company's corporate purpose, provided that, as a result, the Company ceases to</p>

	<p>carry out mining activities; IV. evidence that any of the statements provided by the Company in the Deed of Issue is false or incorrect in any material respect; V. occurrence of default by the Company or Relevant Subsidiary, which is not remedied, of any contract, instrument or document evidencing Indebtedness (as defined in the Deed of Issue) outstanding in an amount equal to or greater than R\$ 250,000,000.00, updated annually by the IGPM, or its equivalent in other currencies, provided that such default results in the effective expiration of said Indebtedness; VII. bankruptcy of the Company and/or any relevant subsidiary (as defined in the Deed of Issue); (b) request for self-financing formulated by the Company and/or any relevant subsidiary; (c) bankruptcy petition of the Company and/or any relevant subsidiary, formulated by third parties, not elided within the legal term; or (d) request for judicial recovery or extrajudicial recovery of the Company and/or any relevant subsidiary, regardless of the granting of the respective request, and other events provided for in the Deed of Issue.</p> <p><i>Any restrictions imposed on the issuer in relation to:</i></p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None. ▪ the disposition of certain assets: Vale may not dispose of all or substantially all of its assets or mining properties unless (a) previously authorized by Debenture Holders representing at least a majority of the outstanding Debentures; or (b) it has been ensured to the Debenture Holders who so desire, in compliance with the terms and time limits of the Deed of Issue, to redeem the Debentures they hold, or (c) to comply with and fulfill all requirements set forth in the Deed of Issuance, which include, but is not limited to, the consent to and fulfillment of all obligations contained in the Deed of Issue by the company receiving the assets to the contracting of new debts: None. ▪ the issuance of new securities: None. ▪ performance of corporate operations involving the issuer, its holding or subsidiary companies: events of early maturity: (a) reduction of the Company's capital
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	<p>stock, except if previously authorized by the debenture holders, (b) transformation of the corporate form of the Company by company, by the issuer, its holding or subsidiary companies: (only when the Company is merged) or incorporation of shares (only when the shares issued by the Company are merged) of the Company, except upon the approval of the Debenture Holders or in the terms set forth in the Issue Deed; (d) change in the Company's corporate purpose, provided that, as a result, the Company ceases to carry out mining activities.</p> <p>Fiduciary Agent: Pentágono S.A. Distributor of Deeds and Securities. Main contractual obligations: (i) to monitor the periodicity in the provision of mandatory information, alerting the Debenture Holders of any omissions or untruths contained in such information; (ii) issue an opinion on the adequacy of the information on the proposed changes to the terms of the Debentures; (iii) request, when necessary, an extraordinary audit at the Company; and (iv) to convene, when necessary, a general meeting of Debenture Holders.</p>
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Securities	8th Issue of Debentures
Characteristics of the securities	<p>Simple, nominative and book-entry unsecured debentures, in 4 series, of which: (i) the 1st series consists of 600,000 debentures, adjusted by the IPCA, with remuneration interest of 6.46% p.a., and maturing on January 15, 2021; (ii) the 2nd series comprising 150,000 debentures, adjusted by the IPCA, with remuneration interest of 6.57% p.a., and maturity on January 15, 2024; (iii) 3rd series consisting of 100,000 debentures, adjusted for IPCA, with remuneration interest of 6.71% p.a., and maturity on January 15, 2026; and (iv) the 4th series comprised of 150,000 debentures, adjusted for the IPCA, with remuneration interest of 6.78% p.a., and maturity on January 15, 2029.</p>

Main Events of Automatic Early Maturity: I. default of pecuniary obligation due to debenture holders pursuant to the terms of the Deed of Issue, not remedied within 2 business days of the date of default; II. any form of transfer or promise to transfer to third parties, in whole or in part, by the Company, of any of its obligations under the terms of Deed of Issuance, unless previously authorized by Debenture holders representing at least 90% of the outstanding Debentures; III. liquidation, dissolution or termination of the Company, except if liquidation, dissolution and/or extinction results from an operation that does not constitute an Event of Default, in the terms permitted by item VII of "Non-Automatic Early Maturity Events"; and other events provided for in the Deed of Issue.

Main Events of Non-Automatic Early Maturity: I. default by the Company of any non-pecuniary obligation set forth in the Deed of Issue, not remedied within 60 days of the date of default, except when there is a specific remedy period or for any of the other Default Events (as defined in the Deed of Issue); II. reduction of the Company's capital stock, unless previously authorized by Debenture Holders representing at least a majority of the outstanding Debentures; III. change in the Company's corporate purpose, provided that, as a result, the Company ceases to carry out mining activities; IV. evidence that any of the statements provided by the Company in the Deed of Issue is false or incorrect in any material respect; V. occurrence of default by the Company or Relevant Subsidiary, which is not remedied, of any contract, instrument or document evidencing Indebtedness (as defined in the Deed of Issue) outstanding in an amount equal to or greater than R\$ 250,000,000.00, updated annually by the IGPM, or its equivalent in other currencies, provided that such default results in the effective expiration of said Indebtedness; VI. bankruptcy of the Company and/or any relevant subsidiary (as defined in the Deed of Issue); (b) request for self-financing formulated by the Company and/or any relevant

	<p>subsidiary; (c) bankruptcy petition of the Company and/or any relevant subsidiary, formulated by third parties, not elided within the legal term; or (d) request for judicial recovery or extrajudicial recovery of the Company and/or any relevant subsidiary, regardless of the granting of the respective request, and other events provided for in the Deed of Issue.</p> <p><i>Any restrictions imposed on the issuer in relation to:</i></p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None. ▪ the disposal of certain assets: Vale may not dispose of all or substantially all of its assets or mining properties unless (a) previously authorized by Debenture Holders representing at least a majority of the outstanding Debentures; or (b) it has been ensured to the Debenture Holders who so desire, in compliance with the terms and time limits of the Deed of Issue, to redeem the Debentures they hold, or (c) to comply with and comply with all requirements set forth in the Deed of Issuance, which include, but are not limited to, the agreement and fulfillment of all obligations contained in the Deed of Issue by the company receiving the assets to the contracting of new debts: None. ▪ the issuance of new securities: None. ▪ performance of corporate operations involving the issuer, its holding or subsidiary companies: events of early maturity: (a) reduction of the Company's capital stock, except if previously authorized by the debenture holders, (b) transformation of the corporate form of the Company by company, by the issuer, its holding or subsidiary companies: (only when the Company is merged) or incorporation of shares (only when the shares issued by the Company are merged) of the Company, except upon the approval of the Debenture Holders or in the terms set forth in the Issue Deed; (d) change in the Company's corporate purpose, provided that, as a result, the Company ceases to carry out mining activities.
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	<p>Fiduciary Agent: Pentágono S.A. Distributor of Deeds and Securities. Main contractual obligations: (i) to monitor the periodicity in the provision of mandatory information, alerting the Debenture Holders of any omissions or untruths contained in such information; (ii) issue an opinion on the adequacy of the information on the proposed changes to the terms of the Debentures; (iii) request, when necessary, an extraordinary audit at the Company; and (iv) to convene, when necessary, a general meeting of Debenture Holders.</p>
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Securities	Shareholder Debentures of the 6th Issue (CVRDA6)
Characteristics of the securities	<p>Single series. Book-Entry, Not to Bearer. Update of the par value according to the IGP-M variation. The participation bonds are traded in the secondary market with the SND - National Bonds System administered by ANBIMA - Brazilian Association of the Financial Market and Capitals Entities and operationalized by CETIP since October 2002. The CETIP codes of the debentures are CVRDA6. The ISIN number of the bonds is BRVALEDBS028.</p>
Other relevant characteristics	<p><i>Maturity:</i> the maturity shall occur in the case of total extinction of the mining rights object of the indenture.</p> <p><i>Main Events of Automatic Early Maturity:</i> The Trustee may declare to be early matured those obligations included in the indenture, regardless of notice or notification, whether judicial or extrajudicial, and request the immediate payment, by Vale, of the par value of the bonds, in case of adjudication of Vale bankruptcy.</p> <p><i>Main Events of Non-Automatic Early Maturity:</i> Vale may not redeem the bonds, whether in whole or in part.</p> <p><i>Premiums:</i> Applicability of premium on the net revenue related to each mineral product: (i) Iron Ore - 1.8%, (ii) Gold and Copper and Byproducts - 2.5% and (iii) other Minerals - 1%. The premiums due to the bondholders shall be paid on</p>

	<p>a biannual basis, on March 31 and September 30 of each year.</p> <p><i>Interest:</i> The bonds shall have their par value updated from the date of their issuance according to the variation of the General Price Index - IGP-M.</p> <p><i>Warranty:</i> None.</p> <p><i>In the absence of a warranty, is the credit unsecured or subordinate:</i> Subordinate, according to the provisions of paragraph 4 of article 58 of Law no. 6,404/76.</p> <p><i>Any restrictions imposed on the issuer in relation to:</i></p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None. ▪ the disposition of certain assets: None. ▪ the contracting of new debts: None. ▪ the issuance of new securities: None. ▪ performing corporate transactions involving the issuer, its controllers or subsidiaries: None. <p>Fiduciary Agent: GDC Partners Serviços Fiduciários DTVM Ltda. The main contractual duty of the trustee is to call, whenever needed, a general meeting of Bondholders.</p> <p><i>Other Information.</i> At the time of the first stage of the Company privatization in 1997, the Company issued participation bonds to the then-existing shareholders. The terms of the bonds were established so as to ensure that the shareholders from before the privatization, among which the Brazilian government, would participate with the Company in the future financial benefits that would derive from exploiting certain mineral resources that were not taken into account when determining the minimum purchase price of shares in the privatization. In accordance with the participation bonds indenture, their holders have the right to receive biannual payments equal to a determined percentage of the net revenues of the Company (revenues less value-added tax, transportation fee and insurance expenses related to the</p>
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	<p>trading of the products) from certain identified mineral resources owned by the Company at the time of the privatization, provided that the Company exceeded defined thresholds of sales volume relating to certain mineral resources, and from the sale of the mineral rights that the Company owned at that time. The obligation of the Company to make payments to the holders of such participation bonds shall cease when the relevant mineral resources are exhausted, sold or disposed of by the Company.</p> <p>The holders of the participation bonds made available for withdrawal the amounts of US\$ 494 million in 2017, US\$ 643 million in 2018 and US\$ 900 million in 2019.</p> <p>For information regarding the number of investors in this security, please refer to the table above in this item 18.12.</p>
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Security	BNDESPAR Debentures - 1st Issue
Characteristics of the securities	<p>Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A. The operation is intended to finance the expansion project of Ferrovia Norte Sul.</p> <p>I. Date of Maturity: 12/17/2027</p> <p>II. II. Early Maturity Assumptions: In addition to the hypotheses set forth in articles 39, 40 and 47-A of the Provisions Applicable to the BNDES Contracts, the Debenture Holders may declare early maturity of all the Debentures and require the payment, by Vale, of the debt related to the debit balance of the Debentures. Debentures, plus interest and other charges incurred up to the date of payment, at the occurrence of the following events, among others:</p> <p>(a) noncompliance by Vale of any pecuniary obligation related to the Debentures, not remedied within a period of up to 10 business days as of the respective maturity date;</p> <p>(b) Vale's bankruptcy petition filed by third parties not elided by Vale within the legal deadline, request for a</p>

	<p>judicial or extrajudicial recovery formulated by Vale or, furthermore, the bankruptcy of Vale;</p> <p>(c) dissolution and liquidation of VALE;</p> <p>(d) the failure to comply with any non-pecuniary obligation provided for in the deed has not been remedied within 45 days;</p> <p>(f) a declaration of early maturity of any debt of VALE due to contractual default whose individual amount is equal to or greater than R\$ 125,000,000.00 or whose aggregate value, in a period of 12 consecutive months, is equal to or greater than R\$ 1,000,000,000.00. The amount covered by this item will be updated monthly from the Issue Date by the General Price Index - Market, published by Fundação Getúlio Vargas (IGPM);</p> <p>f) the inclusion in a VALE agreement or articles of a device that involves: (I) a special quorum for deliberation or approval of matters that limit or restrict Vale's control by the respective controllers; (ii) restrictions on Vale's growth capacity or its technological development; (iii) restrictions on Vale's access to new markets; or (iv) restrictions or losses on the ability to pay financial obligations arising from the deed;</p> <p>g) statement that Vale's statements in the deed in any material respect were false or misleading or incorrect or incomplete at the time they were declared;</p> <p>h) change in Vale's corporate purpose, unless previously approved by holders of debentures representing the majority of the outstanding debentures;</p> <p>i) if Vale approves a reduction of the capital stock with restitution to the shareholders of part of the value of the shares or the reduction of the value of the shares, if not paid, to the amount of the entries, without the previous and express approval of the holders of debentures representing the majority of the outstanding DEBENTURES;</p> <p>j) if (i) Vale's direct effective shareholding control is changed by any means, unless previously approved by holders of debentures representing the majority of the outstanding debentures; or (ii) Vale's indirect control is altered without observing that in the event of alteration of</p>
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	<p>its indirect control, without previous and express authorization of the debenture holders, Vale undertakes to submit, within a period of two months, counting from the referred to amendment, a guarantee letter, accepted at the discretion of the debenture holders;</p> <p>k) non-compliance by Vale of the obligation not to provide a real guarantee with other creditors, without guarantee of the same quality being granted to this issue with the same priority of payment, unless approved in advance by holders of debentures representing the majority of the outstanding debentures;</p> <p>l) if Vale does not use the proceeds of the issue for capitalization of FNS, within 3 business days from the payment of the debentures; and</p> <p>m) in case VALE does not promote the redemption within the time frame and under the terms stated in the DEED.</p> <p>n) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, real guarantees, accepted by BNDES, in an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <ul style="list-style-type: none"> - Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the fiscal years of 2015 and 2016 will the index of 5.5 prevail); and - Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0. <p>III. Interest: TJLP + 0.8% p.a.</p> <p>IV. Warranty: None.</p> <p>V. In the absence of a guarantee, if the credit is unsecured or subordinated: Unsecured.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None.
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	<ul style="list-style-type: none"> ▪ the disposal of certain assets: Vale may dispose of any assets if, at its discretion, this act is desirable for the conducting of its business and does not adversely affect Vale's ability to honor its obligations under the terms of the Deed. ▪ the contracting of new debts: None. ▪ the issuance of new securities: None. ▪ the carrying out of corporate transactions involving the issuer, its controllers or subsidiaries: the hypotheses listed in items (f), (h), (i) and (j) above, are hypotheses of early maturity. <p>VII. Fiduciary Agent: None.</p>
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Security	BNDESPAR Debentures - 2nd Issue
Characteristics of the securities	<p>Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A. The operation is intended to finance the expansion project of Ferrovia Norte Sul.</p> <p>I. Date of Maturity: 12/17/2027</p> <p>II. II. Early Maturity Assumptions: In addition to the hypotheses set forth in articles 39, 40 and 47-A of the Provisions Applicable to the BNDES Contracts, the Debenture Holders may declare early maturity of all the Debentures and require the payment, by Vale, of the debt related to the debit balance of the Debentures. Debentures, plus interest and other charges incurred up to the date of payment, at the occurrence of the following events, among others:</p> <p>(a) noncompliance by Vale of any pecuniary obligation related to the Debentures, not remedied within a period of up to 10 business days as of the respective maturity date;</p> <p>(b) Vale's bankruptcy petition filed by third parties not elided by Vale within the legal deadline, request for a judicial or extrajudicial recovery formulated by Vale or, furthermore, the bankruptcy of Vale;</p> <p>(c) dissolution and liquidation of VALE;</p>

	<p>(d) the failure to comply with any non-pecuniary obligation provided for in the deed has not been remedied within 45 days;</p> <p>(e) a declaration of early maturity of any debt of VALE due to contractual default whose individual amount is equal to or greater than R\$ 125,000,000.00 or whose aggregate value, in a period of 12 consecutive months, is equal to or greater than R\$ 1,000,000,000.00. The amount covered by this item will be updated monthly from the Issue Date by the General Price Index - Market, published by Fundação Getúlio Vargas (IGPM);</p> <p>(f) the inclusion in a VALE agreement or articles of a device that involves: (I) a special quorum for deliberation or approval of matters that limit or restrict Vale's control by the respective controllers; (ii) restrictions on Vale's growth capacity or its technological development; (iii) restrictions on Vale's access to new markets; or (iv) restrictions or losses on the ability to pay financial obligations arising from the deed;</p> <p>(g) statement that Vale's statements in the deed in any material respect were false or misleading or incorrect or incomplete at the time they were declared;</p> <p>(h) change in Vale's corporate purpose, unless previously approved by holders of debentures representing the majority of the outstanding debentures;</p> <p>(i) if Vale approves a reduction of the capital stock with restitution to the shareholders of part of the value of the shares or the reduction of the value of the shares, if not paid, to the amount of the entries, without the previous and express approval of the holders of debentures representing the majority of the outstanding DEBENTURES;</p> <p>(j) if (i) Vale's direct effective shareholding control is changed by any means, unless previously approved by holders of debentures representing the majority of the outstanding debentures; or (ii) Vale's indirect control is altered without observing that in the event of alteration of its indirect control, without previous and express authorization of the debenture holders, Vale undertakes to submit, within a period of two months, counting from the referred to amendment, a</p>
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	<p>guarantee letter, accepted at the discretion of the debenture holders;</p> <p>(k) non-compliance by Vale of the obligation not to provide a real guarantee with other creditors, without guarantee of the same quality being granted to this issue with the same priority of payment, unless approved in advance by holders of debentures representing the majority of the outstanding debentures;</p> <p>(l) if Vale does not use the proceeds of the issue for capitalization of FNS, within 3 business days from the payment of the debentures; and</p> <p>(m) in case VALE does not promote the redemption within the time frame and under the terms stated in the DEED.</p> <p>(n) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, real guarantees, accepted by BNDES, in an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <ul style="list-style-type: none"> - Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the fiscal years of 2015 and 2016 will the index of 5.5 prevail); and - Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0. <p>III. Interest: TJLP + 0.8% p.a.</p> <p>IV. Warranty: None.</p> <p>V. In the absence of a guarantee, if the credit is unsecured or subordinated: Unsecured.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None. ▪ the disposal of certain assets: Vale may dispose of any assets if, at its discretion, this act is desirable for the conducting of its business and does not adversely affect
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	<p>Vale's ability to honor its obligations under the terms of the Deed.</p> <ul style="list-style-type: none"> ▪ the contracting of new debts: None. ▪ the issuance of new securities: None. ▪ the carrying out of corporate transactions involving the issuer, its controllers or subsidiaries: the hypotheses listed in items (f), (h), (i) and (j) above, are hypotheses of early maturity. <p>VII. Fiduciary Agent: None.</p>
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Security	BNDESPAR Debentures – 3rd Issue
Characteristics of the securities	<p>Debentures issued by Vale S.A., privately, which were fully subscribed by BNDES Participações S.A. The operation is intended to finance the expansion project of Ferrovia Norte Sul.</p> <p>I. Date of Maturity: 12/17/2027</p> <p>II. II. Early Maturity Assumptions: In addition to the hypotheses set forth in articles 39, 40 and 47-A of the Provisions Applicable to the BNDES Contracts, the Debenture Holders may declare early maturity of all the Debentures and require the payment, by Vale, of the debt related to the debit balance of the Debentures. Debentures, plus interest and other charges incurred up to the date of payment, at the occurrence of the following events, among others:</p> <p>(a) noncompliance by Vale of any pecuniary obligation related to the Debentures, not remedied within a period of up to 10 business days as of the respective maturity date;</p> <p>(b) Vale's bankruptcy petition filed by third parties not elided by Vale within the legal deadline, request for a judicial or extrajudicial recovery formulated by Vale or, furthermore, the bankruptcy of Vale;</p> <p>(c) dissolution and liquidation of VALE;</p> <p>(d) the failure to comply with any non-pecuniary obligation provided for in the deed has not been remedied within 45 days;</p>

	<p>(e) a declaration of early maturity of any debt of VALE due to contractual default whose individual amount is equal to or greater than R\$ 125,000,000.00 or whose aggregate value, in a period of 12 consecutive months, is equal to or greater than R\$ 1,000,000,000.00. The amount covered by this item will be updated monthly from the Issue Date by the General Price Index - Market, published by Fundação Getúlio Vargas (IGPM);</p> <p>(f) the inclusion in a VALE agreement or articles of a device that involves: (I) a special quorum for deliberation or approval of matters that limit or restrict Vale's control by the respective controllers; (ii) restrictions on Vale's growth capacity or its technological development; (iii) restrictions on Vale's access to new markets; or (iv) restrictions or losses on the ability to pay financial obligations arising from the deed;</p> <p>(g) statement that Vale's statements in the deed in any material respect were false or misleading or incorrect or incomplete at the time they were declared;</p> <p>(h) change in Vale's corporate purpose, unless previously approved by holders of debentures representing the majority of the outstanding debentures;</p> <p>(i) if Vale approves a reduction of the capital stock with restitution to the shareholders of part of the value of the shares or the reduction of the value of the shares, if not paid, to the amount of the entries, without the previous and express approval of the holders of debentures representing the majority of the outstanding DEBENTURES;</p> <p>(j) if (i) Vale's direct effective shareholding control is changed by any means, unless previously approved by holders of debentures representing the majority of the outstanding debentures; or (ii) Vale's indirect control is altered without observing that in the event of alteration of its indirect control, without previous and express authorization of the debenture holders, Vale undertakes to submit, within a period of two months, counting from the referred to amendment, a guarantee letter, accepted at the discretion of the debenture holders;</p> <p>(k) non-compliance by Vale of the obligation not to provide a real guarantee with other creditors, without guarantee of</p>
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	<p>the same quality being granted to this issue with the same priority of payment, unless approved in advance by holders of debentures representing the majority of the outstanding debentures;</p> <p>(l) if Vale does not use the proceeds of the issue for capitalization of FNS, within 3 business days from the payment of the debentures; and</p> <p>(m) in case VALE does not promote the redemption within the time frame and under the terms stated in the DEED.</p> <p>(n) does not constitute, in the event of failure to reach the established levels, within 60 days from the date of BNDES's written communication, real guarantees, accepted by BNDES, in an amount corresponding to at least 130% of the value of the debt, unless in that period the levels described below are reestablished:</p> <ul style="list-style-type: none"> - Debt to Adjusted EBITDA ratio of less than or equal to 4.5 (observing that only in relation to the calculations to be performed based on the financial results referring to the fiscal years of 2015 and 2016 will the index of 5.5 prevail); and - Adjusted EBITDA ratio on Interest Expenses greater than or equal to 2.0. <p>III. Interest: TJLP + 0.8% p.a.</p> <p>IV. Warranty: None.</p> <p>V. In the absence of a guarantee, if the credit is unsecured or subordinated: Unsecured.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: None. ▪ the disposal of certain assets: Vale may dispose of any assets if, at its discretion, this act is desirable for the conducting of its business and does not adversely affect Vale's ability to honor its obligations under the terms of the Deed. ▪ the contracting of new debts: None. ▪ the issuance of new securities: None.
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	<ul style="list-style-type: none"> the carrying out of corporate transactions involving the issuer, its controllers or subsidiaries: the hypotheses listed in items (f), (h), (i) and (j) above, are hypotheses of early maturity. <p>VII. Fiduciary Agent: None.</p>
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The following is a description of securities issued by a subsidiary of the Company:

Security	Salobo Debentures
Quantity	1 debenture
Unit nominal value	R\$15,250,399.93
Overall nominal value	R\$76,251,999.65
Debtor balance outstanding on the closing date of the last reporting period	R\$482,029,249.31
Date of issue	01/06/1997
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	The debentures have 3 subscription bonuses giving the holder the right to subscribe, each bonus, 14,465,462 preferred shares of Salobo Metais S.A. in the exercise period. The unit issue price will correspond to the result of the updated unit face value split or updated unit face value balance (after incorporation of monetary restatement and remuneration interest), as the case may be, by the total number of shares to be subscribed.
Possibility of redemption	None
Characteristics of Debentures:	<p>I. Date of Maturity: 7 years counted after the attendance of the accumulated commercial billing of 200,000 tons of copper by Salobo Metais S.A. (5 successive annual installments, consisting of principal and interest, with the first maturity, 2 years after receiving the accumulated commercial sales of 200,000 tons of cathode copper grade A of the London Metals Exchange).</p> <p>II. II. Early Maturity Assumptions: None.</p> <p>III. Interest: IGP-DI + 6.5% p.a. (capitalized)</p>

	<p>IV. Warranty: Guarantee of Vale SA</p> <p>V. In the absence of a guarantee, if the credit is unsecured or subordinated: The debentures will be subordinated to the other creditors of the issuer</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ distribution of dividends: none. ▪ disposal of certain assets: none. ▪ contracting new debts: none. ▪ the issue of new securities: none. ▪ carry out corporate transactions involving the issuer, its controllers or subsidiaries: None. <p>VII. Fiduciary agent (indicate the principal terms of the agreement): None.</p>
Conditions for changing the rights guaranteed by such securities	None.
Other Relevant Conditions	<p>Debentures issued by Salobo Metais S.A., privately, which were fully subscribed by the National Bank for Economic and Social Development (BNDES).</p> <p>Upon the issue of the shares resulting from the exercise of the subscription right, a premium will be paid in the amount corresponding to the dividends distributed to the shareholders up to that date, in proportion to the shares subscribed by BNDES or its assignee.</p> <p>In March 2015, the Salobo mine reached the production required to begin the flow of debt payment, under the terms described above.</p>

Additional Information on Items 18.7 and 18.8

The following is a description of Bonds issued by the Company and its subsidiaries:

Security	<i>Bonds VALE30</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	US\$ 1,500,000,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$ 7,934,711,312.50
Date of issue	07/08/2020
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> Redemption by payment of premium, of all bonds at any time, at Vale's discretion, or part of the bonds periodically. Redemption at par: on the date equivalent to 90 days before the expiration of the issue (04/08/2030), Vale Overseas has the right to repurchase the securities, with at least 30 days, but no more than 60 days notice. Redemption due to changes in tax legislation: if Vale is required to withhold amounts exceeding 15%, upon payment of interest on the papers, as a result of changes in Brazilian tax legislation, Vale may redeem all the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> The redemption value will be the greater of

	<p>100% of the principal amount and the sum of the present value of the interest and principal remaining portions discounted at the redemption date at the Treasury equivalent rate + 0.50%.</p> <ul style="list-style-type: none"> ▪ The redemption value at par shall be equivalent to the face value plus accrued and unpaid interest on the principal of the securities until the redemption date. ▪ Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of the principal amount added to the interest calculated up to the redemption date.
Characteristics of the Bonds	<p>I. Date of Maturity: 07/08/2030</p> <p>II. II. Early Maturity Assumptions: In the event of a default event that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of outstanding bonds, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ Non-payment of interest, principal or premium, if any. ▪ In relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, on aggregate, the value of US\$ 100 million and this default results in the effective acceleration of the

	<p>debt.</p> <ul style="list-style-type: none"> ▪ Vale's or Vale Overseas's failure to perform or observe its covenants related to the bonds and this failure continues to occur 90 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating the breach of such obligations. These covenants include but are not limited to: (a) obligations to not merge or sell all or substantially any of the assets of Vale or Vale Overseas, with certain exceptions; and (b) limitations to provide real guarantees on debt operations, with some exceptions allowed. ▪ Bankruptcy or insolvency. ▪ Vale Overseas notes become illegal, generating the acceleration of more than US\$ 100 million on aggregate. ▪ The guarantee becomes invalid or unenforceable. <p>III. Interest: 3.750% per year.</p> <p>IV. Guarantee: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in the event of a default of payment by Vale Overseas.</p>
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	<p>V. If the credit is unsecured or subordinated: Not applicable</p> <p>VI. VI. Restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ The distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ The disposal of certain assets: Vale and Vale Overseas may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii). ▪ The contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas is prohibited from contracting
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	<p>another type of loan or financing.</p> <ul style="list-style-type: none"> ▪ The issue of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond VALE 2030. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ Performing corporate transactions involving the issuer, its controllers or subsidiaries: <p>Vale Overseas and Vale may not consolidate or merge with any other company or, (a) in the case of Vale Overseas, transfer all or substantially all of its equity or assets to any other company or (b) in the case of Vale , transfer all or substantially all of its mining properties or assets to any other company without the consent of more than 50% of the holders of the bonds in outstanding principal amounts, unless the company formed or substantially that acquires all the assets or all the properties expressly assumes the role of successor company to all the obligations of Vale Overseas and/or Vale.</p> <p>Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands.</p> <p>Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas.</p>
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	<p>Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount.</p> <p>VII. Fiduciary agent (indicate the principal terms of the agreement): Bank of New York Mellon acts as trustee, registrar, paying agent and transfer agent of the bonds under the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed permits, at any time, with certain exceptions, the modification of the rights and obligations of Vale and the investors in the bonds. Such changes may only be made by Vale and by the trustee with the consent of the majority of the holders of the bonds in outstanding principal amounts.</p>
Other Relevant Features	<p>Bonds issued through controlled Vale Overseas Ltd. The bonds are rated BBB- by Standard & Poor's Rating Services, Baa3 by Moody's Investor Services, BBB low by Dominion Bond Rating Service and BBB by Fitch Ratings. The net proceeds from the issue of July 2020 were used for general purposes of the Company.</p>

Security	<i>Bonds VALE42</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	After repurchases, the global face value is US\$520,405,000.000.
Debtor balance outstanding on the closing date of the last reporting period	R\$2,757,027,657.14
Date of issue	September 11, 2012
Restrictions on movement	None.
Convertibility in shares or a right to subscribe or buy shares of the issuer	None.
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> ▪ Redemption by payment of premium, of all bonds at any time, at Vale's discretion, or part of the bonds periodically. ▪ Redemption due to changes in tax legislation: if Vale is required to withhold amounts exceeding 15%, upon payment of interest on the papers, as a result of changes in Brazilian tax legislation, Vale may redeem all the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> ▪ The redemption value shall be the greater of 100% of the principal amount and the sum of the present value of the interest and principal remaining portions discounted on the redemption date at the Treasury equivalent rate + 0.45%. ▪ Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of the principal amount added to the interest calculated up to the redemption date.
Characteristics of the Bonds	I. Maturity Date: September 11, 2042

	<p>II. In the event of any default occurring that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of bonds in outstanding principal amounts, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any. ▪ in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year): the occurrence of any default, in any operation characterized as debt, that exceeds in the aggregate amount of US\$ 100 million and this default results in the effective acceleration of debt. ▪ Vale's failure to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after Vale receives the notice from the trustee or at least 25% of the bond holders reporting a breach of such obligations. These obligations include but are not limited to: (i) obligations to not merge or sell the total assets or a substantial part of Vale's assets, with certain exceptions and (ii) limitations to give real guarantees in debt operations, with some exceptions allowed. ▪ bankruptcy or insolvency ▪ Vale Overseas bonds become illegal, generating the acceleration of more than US\$ 100 million on aggregate.
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	<ul style="list-style-type: none"> the warranty becomes invalid or unenforceable. <p>III. Interest: 5.625% per year.</p> <p>IV. Warranty: There is no security interest grant.</p> <p>V. If the credit is unsecured or subordinated: not applicable.</p> <p>VI. VI. Restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> the distribution of dividends: There is no restriction on the distribution of dividends by Vale. the disposal of certain assets: Vale may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale sends to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii). the contracting of new debts: there is no restriction for contracting new debts by Vale. the issuance of new securities: Vale may issue, without the consent of the bond holders, new bonds under the same terms and conditions as Bond VALE42. In addition, Vale may issue new bonds with other terms and conditions. Vale has
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	<p>the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt.</p> <ul style="list-style-type: none"> ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale may not consolidate or merge with any other entity or transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of bonds of outstanding principal amounts, unless the corporation formed or that substantially acquires all assets or all property expressly assumes the role of successor corporation to all of Vale's obligations. <p>VII. Fiduciary agent (indicate the principal terms of the agreement): The Bank of New York Mellon acts as trustee, registrar, paying agent and transfer agent of the bonds under the indenture and its main function is to ensure the right of investors and the Bank of New York Mellon Trust (Japan), Ltd., as principal paying agent.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed permits, at any time, with certain exceptions, the modification of the rights and obligations of Vale and the investors in the bonds.</p> <p>Such changes may only be made by Vale and by the trustee with the consent of the majority of the holders of the bonds in outstanding principal amounts.</p>
Other Relevant Features	Bonds issued by Vale S.A.

Security	<i>Bonds VALE39</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	After repurchases, as described in the item "Information on Redemption of Bonds" at the end of this item 18.12, the global face value is US\$ 844,805,000.00.
Debtor balance outstanding on the closing date of the last reporting period	R\$4,432,118,438.27
Date of Issue:	November 10, 2009
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> ▪ Redemption by payment of premium, at any time, of the totality of the bonds, at Vale Overseas's discretion, or part of the bonds periodically. ▪ Redemption due to changes in tax legislation: if Vale or Vale Overseas is required to withhold more than 15%, upon payment of interest on the bonds, as a result of changes in Brazilian or Cayman tax laws, Vale Overseas may redeem the totality of the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> ▪ The redemption value shall be the greater of 100% of the principal amount and the sum of the present value of the interest and principal remaining portions discounted on the redemption date at the Treasury equivalent rate of + 0.40%. ▪ Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of

	the principal amount added to the interest calculated up to the redemption date.
Characteristics of the Bonds	<p>I. Date of Maturity: November 10, 2039</p> <p>II. In the event of any unrecovered event of default that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of bonds of outstanding principal amounts, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any. ▪ in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, on aggregate, the value of US\$ 50 million and this default results in the effective acceleration of the debt. ▪ failure of Vale or Vale Overseas to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating the breach of such obligations. These covenants include but are not limited to: (a) obligations to not merge or sell all or substantially any of the assets of Vale or Vale Overseas, with certain exceptions; and (b) limitations to provide real guarantees on debt operations, with some exceptions allowed. ▪ bankruptcy or insolvency.

	<ul style="list-style-type: none"> ▪ Vale Overseas bonds become illegal, generating an acceleration of more than US\$ 50 million on aggregate. ▪ the warranty becomes invalid or unenforceable. <p>III. Interest: 6.875% per year.</p> <p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in connection with these bonds in the event of a default of payment by Vale Overseas.</p> <p>V. If the credit is unsecured or subordinated: Not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ the disposition of certain assets: Vale and Vale Overseas may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas,
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	<p>as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii).</p> <ul style="list-style-type: none"> ▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas is prohibited from contracting another type of loan or financing. ▪ the issue of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond VALE 2039. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Overseas and Vale may not consolidate or merge with any other entity or (a) in the case of Vale Overseas, transfer all or substantially all of its properties or assets to any other entity or (b) in the case of Vale, transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of the bonds of outstanding principal amounts, unless the corporation formed or that substantially acquires all the assets or all the properties expressly assume the role of successor corporation to all the obligations of Vale Overseas and/or Vale.
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	<ul style="list-style-type: none"> ▪ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands. ▪ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas. ▪ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount. <p>VII. Fiduciary agent, indicating the main terms of the agreement: The Bank of New York acts as trustee of the bonds under the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed of issue permits the modification of the rights and obligations of Vale Overseas and the investors in the bonds. Such changes should be made upon consent of 100% or of the majority of the holders of the bonds of the outstanding principal amounts, according to the type of modification. Some clarifications or non-material changes may be made without the consent of the bond holders.</p>

Other relevant features	Bonds issued through the subsidiary Vale Overseas Ltd.
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Security	<i>Bonds CVRD36</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	After repurchases, as described in the item "Information on Redemption of Bonds" at the end of this item 18.12, the global face value is US\$ 1,618,987,000.00.
Debtor balance outstanding on the closing date of the last reporting period	R\$8,476,051,968.59
Date of issue	November 21, 2006
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> Redemption by payment of premium, of all bonds, at any time, at the discretion of Vale Overseas, or part of the bonds periodically. Redemption due to changes in tax legislation: if Vale or Vale Overseas is required to withhold more than 15%, upon payment of interest on the bonds, as a result of changes in Brazilian or Cayman tax laws, Vale Overseas may redeem the totality of the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> Redemption by means of premium payment: the redemption value will be the greater of 100% of the principal amount and the sum of the present values of the interest and principal remaining portions discounted on the date of

	<p>redemption at the Treasury equivalent rate + 0.35%.</p> <ul style="list-style-type: none"> Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of the principal amount added to the interest calculated up to the redemption date.
Characteristics of the Bonds	<p>I. Date of Maturity: 11/21/2036</p> <p>II. In the event of a default that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of outstanding bonds, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> lack of payment of interest, principal or premium, if any. in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds US\$ 50 million on aggregate and this default results in the effective acceleration of debt. failure of Vale or Vale Overseas to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating the breach of such obligations. These obligations include but are not limited to: (i) obligations to not merge or sell all or substantially all the assets of

	<p>Vale or Vale Overseas, with certain exceptions, and (ii) limitations to provide collateral in debt operations, with some exceptions allowed.</p> <ul style="list-style-type: none"> ▪ bankruptcy or insolvency. ▪ Vale Overseas bonds become illegal, generating an acceleration of more than US\$ 50 million on aggregate. ▪ the warranty becomes invalid or unenforceable. <p>III. Interest: 6.875% per year.</p> <p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in connection with these bonds in the event of a default of payment by Vale Overseas.</p> <p>V. If the credit is unsecured or subordinated: not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ the disposal of certain assets: Vale and Vale Overseas may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless:
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	<p>(i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii).</p> <ul style="list-style-type: none"> ▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas is prohibited from contracting another type of loan or financing. ▪ the issue of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond VALE 2036. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Overseas and Vale may not consolidate or merge with any other entity or (a) in the case of Vale Overseas, transfer all or substantially all of its properties or assets to any other entity or (b) in the case of Vale, transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of the bonds of outstanding principal amounts, unless the corporation formed or
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	<p>that substantially acquires all the assets or all the properties expressly assume the role of successor corporation to all the obligations of Vale Overseas and/or Vale.</p> <ul style="list-style-type: none"> ▪ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands. ▪ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas. ▪ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount. <p>VII. Fiduciary agent, indicating the main terms of the agreement: The Bank of New York acts as trustee of the bonds under the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed of issue permits the modification of the rights and obligations of Vale Overseas and the investors in the bonds. Such changes should be made upon consent of 100% or of the majority of the holders of the bonds of the outstanding principal amounts, according to the type of</p>

	modification. Some clarifications or non-material changes may be made without the consent of the bond holders.
Other relevant features	Bonds issued through the subsidiary Vale Overseas Ltd.

Security	<i>Bonds CVRD34</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	After repurchases, as described in the item "Information on Redemption of Bonds" at the end of this item 18.12, the global face value is US\$ 381,486,000.00.
Debtor balance outstanding on the closing date of the last reporting period	R\$2,056,521,747.37
Date of issue	January 15, 2004
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses: Redemption due to changes in tax legislation: Vale Overseas may only redeem all of the bonds in advance if Vale or Vale Overseas is required to withhold more than 15% when interest is paid on the bonds, due to changes in the tax legislation in Brazil or in Cayman.</p> <p>II. Redemption value calculation formula: The redemption value will be equivalent to 100% of the principal amount plus interest calculated up to the redemption date.</p>
Characteristics of the Bonds	<p>I. Date of Maturity: 01/17/2034</p> <p>II. In a default event that is not remedied or pardoned, the trustee under the direction of at least 25% of the holders of outstanding principal amounts shall declare the principal amount, interest</p>

	<p>calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any. ▪ in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds US\$ 50 million on aggregate and this default results in the effective acceleration of debt. ▪ failure of Vale or Vale Overseas to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating the breach of such obligations. These obligations include but are not limited to: (a) obligations to not merge or sell all or substantially any of the assets of Vale or Vale Overseas, with certain exceptions and (b) limitations to provide collateral in debt operations, with some exceptions allowed. ▪ bankruptcy or insolvency. ▪ In any event that makes Vale Overseas's bonds illegal, the trustee, under the direction of at least 25% of the holders of bonds of outstanding principal amounts, must also declare the principal amount, interest calculated, and any unpaid amount owed immediately. <p>III. Interest: 8.250% per year.</p>
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	<p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in connection with these bonds in the event of a default of payment by Vale Overseas.</p> <p>V. if the credit is unsecured or subordinated: not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ the disposition of certain assets: Vale and Vale Overseas may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no event of default or unlawful condition occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii). ▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas may not engage in
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	<p>any other type of loan or financing without the consent of the trustee under the direction of at least 25% of the holders of the bonds in value of outstanding principal. Moody's must confirm in advance that the new issue of Vale Overseas will not result in the downgrading of the rating granted to other outstanding bonds.</p> <ul style="list-style-type: none"> ▪ the issue of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond VALE 2034. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Overseas and Vale may not consolidate or merge with any other entity or (a) in the case of Vale Overseas, transfer all or substantially all of its properties or assets to any other entity or (b) in the case of Vale, transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of the bonds of outstanding principal amounts, unless the corporation formed or that substantially acquires all the assets or all the properties expressly assume the role of successor corporation to all the obligations of Vale Overseas and/or Vale. ▪ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands.
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	<ul style="list-style-type: none"> ▪ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas. ▪ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount. <p>VII. Fiduciary agent, indicating the main terms of the agreement: JP Morgan Chase Bank acts as trustee of the bonds in the scope of the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed of issue permits the modification of the rights and obligations of Vale Overseas and the investors in the bonds. Such changes should be made upon consent of 100% or of the majority of the holders of the bonds of the outstanding principal amounts, according to the type of modification. Some clarifications or non-material changes may be made without the consent of the bond holders.</p>
Other relevant features	<p>Bonds issued through the subsidiary Vale Overseas Ltd.</p>

Security	<i>Bonds CVRD34B</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	US\$ 300,000,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$1,617,245,540.16
Date of issue	November 02, 2005
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses: Redemption due to changes in tax legislation: Vale Overseas may only redeem all of the bonds in advance if Vale or Vale Overseas is required to withhold more than 15% when interest is paid on the bonds, due to changes in the tax legislation in Brazil or in Cayman.</p> <p>II. Redemption value calculation formula: The redemption value will be equivalent to 100% of the principal amount plus interest calculated up to the redemption date.</p>
Characteristics of the Bonds	<p>I. Date of Maturity: 01/17/2034</p> <p>II. In a default event that is not remedied or pardoned, the trustee under the direction of at least 25% of the holders of outstanding principal amounts shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any.

	<ul style="list-style-type: none"> ▪ in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds US\$ 50 million on aggregate and this default results in the effective acceleration of debt. ▪ failure of Vale or Vale Overseas to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating the breach of such obligations. These obligations include but are not limited to: (a) obligations to not merge or sell all or substantially any of the assets of Vale or Vale Overseas, with certain exceptions and (b) limitations to provide collateral in debt operations, with some exceptions allowed. ▪ bankruptcy or insolvency <ul style="list-style-type: none"> • In any event that makes Vale Overseas's bonds illegal, the trustee under the direction of at least 25% of the holders of bonds of outstanding notes will also declare principal amount, interest accrued, and any unpaid amount owed immediately. <p>III. Interest: 8.250% per year.</p> <p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in connection with these bonds in the event of a default of payment by Vale Overseas.</p>
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	<p>V. If the credit is unsecured or subordinated: Not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ the disposal of certain assets: Vale and Vale Overseas may not, without the consent of the majority of bond holders, enter into a merger with another company or transfer all or a substantial part of its assets to third parties, unless: the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no event of default or unlawful condition occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii). ▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas may not engage in any other type of loan or financing without the consent of the trustee under the direction of at least 25% of the holders of the bonds in value of outstanding principal. Moody's must confirm in advance that the new issue of Vale Overseas will
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	<p>not result in the downgrading of the rating granted to other outstanding bonds.</p> <ul style="list-style-type: none"> ▪ the issuance of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond CVRD2034. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Overseas and Vale may not consolidate or merge with any other entity or (a) in the case of Vale Overseas, transfer all or substantially all of its properties or assets to any other entity or (b) in the case of Vale, transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of the bonds of outstanding principal amounts, unless the corporation formed or that substantially acquires all the assets or all the properties expressly assume the role of successor corporation to all the obligations of Vale Overseas and/or Vale. ▪ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands. ▪ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas. ▪ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of
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	<p>collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts.</p> <ul style="list-style-type: none"> Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount. <p>VII. Fiduciary agent, indicating the main terms of the agreement: JP Morgan Chase Bank acts as trustee of the bonds in the scope of the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	The deed of issue permits the modification of the rights and obligations of Vale Overseas and the investors in the bonds. Such changes should be made upon consent of 100% or of the majority of the holders of the bonds of the outstanding principal amounts, according to the type of modification. Some clarifications or non-material changes may be made without the consent of the bond holders.
Other relevant features	Bonds issued through the subsidiary Vale Overseas Ltd.

Security	<i>Bonds CVRD39B</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	After repurchases, as described in the item

	"Information on Redemption of Bonds" at the end of this item 18.12, the global face value is US\$ 486,417,000.00.
Debtor balance outstanding on the closing date of the last reporting period	R\$2,551,899,851.90
Date of issue	09/10/2010
Restrictions on movement	None.
Convertibility in shares or a right to subscribe or buy shares of the issuer	None.
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> Redemption by payment of premium, of all bonds, at any time, at the discretion of Vale Overseas, or part of the bonds periodically. Redemption due to changes in tax legislation: if Vale or Vale Overseas is required to withhold more than 15%, upon payment of interest on the bonds, as a result of changes in Brazilian or Cayman tax laws, Vale Overseas may redeem the totality of the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> The redemption value shall be the greater of 100% of the principal amount and the sum of the present value of the interest and principal remaining portions discounted on the redemption date at the Treasury equivalent rate of + 0.40%. Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of the principal amount added to the interest calculated up to the redemption date.
Characteristics of the Bonds	I. Date of Maturity: November 10, 2039

	<p>II. In the event of any default occurring that is not cured or pardoned, the trustee, under the direction of at least 25% of the holders of bonds of outstanding principal amounts, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any. ▪ in relation to Vale, its subsidiaries that have total assets of more than 10% of the total consolidated assets of the group at the end of each fiscal year) and Vale Overseas: any default occurring in any transaction characterized as debt, which exceeds on aggregate the value of US\$ 50 million and this default will result in the effective acceleration of debt. ▪ failure of Vale or Vale Overseas to perform or observe its covenants related to the bonds and this failure continues to occur 60 days after receiving the notice from the trustee or at least 25% of the bond holders reporting a breach of such obligations. These obligations include but are not limited to: (i) obligations to not merge or sell all or substantially all the assets of Vale or Vale Overseas, with certain exceptions, and (ii) limitations to provide collateral in debt operations, with some exceptions allowed. ▪ bankruptcy or insolvency ▪ Vale Overseas bonds become illegal, generating an acceleration of more than US\$ 50 million on aggregate.
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	<ul style="list-style-type: none"> the warranty becomes invalid or unenforceable. <p>III. Interest: 6.875% per year.</p> <p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in connection with these bonds in the event of a default of payment by Vale Overseas.</p> <p>V. If the credit is unsecured or subordinated: not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. the disposition of certain assets: Vale and Vale Overseas may not, without the consent of the majority of bond holders, enter into a merger with another company or transfer all or a substantial part of its assets to third parties, unless: the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii).
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	<ul style="list-style-type: none"> ▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas is prohibited from contracting another type of loan or financing. ▪ the issuance of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of the Bond CVRD39. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt. ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Overseas and Vale may not consolidate or merge with any other entity or (a) in the case of Vale Overseas, transfer all or substantially all of its properties or assets to any other entity or (b) in the case of Vale, transfer all or substantially all of its mining properties or assets to any other entity without the consent of more than 50% of the holders of the bonds of outstanding principal amounts, unless the corporation formed or that substantially acquires all the assets or all the properties expressly assume the role of successor corporation to all the obligations of Vale Overseas and/or Vale. ▪ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands. ▪ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas.
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	<ul style="list-style-type: none"> ▪ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts. ▪ Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount. <p>VII. Fiduciary agent, indicating the main terms of the agreement: The Bank of New York Mellon acts as trustee of the bonds under the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	The deed of issue permits the modification of the rights and obligations of Vale Overseas and the investors in the bonds. Such changes should be made upon consent of 100% or of the majority of the holders of the bonds of the outstanding principal amounts, according to the type of modification. Some clarifications or non-material changes may be made without the consent of the bond holders.
Other relevant features	Bonds issued through the subsidiary Vale Overseas Ltd.

Security	<i>Bonds VALE 26</i>
Jurisdiction	USA

Quantity	Bonds are issued at a minimum value of US\$ 2,000.00, always in multiples of US\$ 1,000.00.
Overall nominal value	US\$ 1,500,000,000.00
Debtor balance outstanding on the closing date of the last reporting period	R\$7,934,711,312.50
Date of issue	07/08/2020
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> ▪ Redemption by payment of premium, of all bonds at any time, at Vale's discretion, or part of the bonds periodically. • Redemption at par: on the date equivalent to 90 days before the expiration of the issue (04/08/2030), Vale Overseas has the right to repurchase the securities, with at least 30 days, but no more than 60 days notice. ▪ Redemption due to changes in tax legislation: if Vale is required to withhold amounts exceeding 15%, upon payment of interest on the papers, as a result of changes in Brazilian tax legislation, Vale may redeem all the bonds in advance. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> ▪ The redemption value will be the greater of 100% of the principal amount and the sum of the present value of the interest and principal remaining portions discounted at the redemption date at the Treasury equivalent rate + 0.50%. • The redemption value at par shall be equivalent to the face value plus accrued and

	<p>unpaid interest on the principal of the securities until the redemption date.</p> <ul style="list-style-type: none"> Redemption by changes in tax legislation: The redemption value will be equivalent to 100% of the principal amount added to the interest calculated up to the redemption date.
Characteristics of Bonds	<p>I. Date of Maturity: 07/08/2030</p> <p>II. II. Early Maturity Assumptions: In the event of a default event that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of outstanding bonds, shall declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which are:</p> <ul style="list-style-type: none"> lack of payment of interest, principal or premium, if any. in relation to Vale, its relevant subsidiaries (subsidiaries that have total assets of more than 10% of the consolidated total assets of the group at the end of each fiscal year) and Vale Overseas: the occurrence of any default, in any transaction characterized as debt, that exceeds, on aggregate, the value of US\$ 100 million and this default results in the effective acceleration of the debt. Vale's or Vale Overseas's failure to perform or observe its covenants related to the bonds and this failure continues to occur 90 days after Vale or Vale Overseas receives the trustee's notice or at least 25% of the bond holders communicating

	<p>the breach of such obligations. These covenants include but are not limited to: (a) obligations to not merge or sell all or substantially any of the assets of Vale or Vale Overseas, with certain exceptions; and (b) limitations to provide real guarantees on debt operations, with some exceptions allowed.</p> <ul style="list-style-type: none"> ▪ bankruptcy or insolvency. ▪ Vale Overseas bonds become illegal, generating the acceleration of more than US\$ 100 million on aggregate. ▪ the warranty becomes invalid or unenforceable. <p>III. Interest: 3.750% per year.</p> <p>IV. Warranty: There is no security interest grant. Vale irrevocably and unconditionally guarantees the total payment of principal, interest and other amounts due in the event of a default of payment by Vale Overseas.</p> <p>V. If the credit is unsecured or subordinated: Not applicable</p> <p>VI. VI. Restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale. However, Vale Overseas may not declare or pay any dividends without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding principal amounts.
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	<ul style="list-style-type: none">▪ the disposition of certain assets: Vale and Vale Overseas may not, without the consent of the majority of the bond holders, participate in a merger with another company or transfer all or a substantial part of its assets to third parties, unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all other obligations of Vale and Vale Overseas in the deed of issue; (ii) no default event occurs as a result of the transaction; and (iii) Vale or Vale Overseas, as the case may be, send to the trustee a certificate and legal opinion attesting that the consolidation or transfer of assets satisfies the obligation of item (ii).▪ the contracting of new debts: there is no restriction for contracting new debts by Vale. Vale Overseas may issue debt securities under the indenture, but Vale Overseas is prohibited from contracting another type of loan or financing.▪ the issuance of new securities: Vale Overseas may issue, without the consent of the bond holders, new bonds in the same terms and conditions of Bond VALE 2030. In addition, Vale Overseas may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt.
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	<ul style="list-style-type: none"> ▪ carry out corporate transactions involving the issuer, its controlling shareholders or subsidiaries: <ul style="list-style-type: none"> ○ Vale Overseas and Vale may not consolidate or merge with any other company or, (a) in the case of Vale Overseas, transfer all or substantially all of its equity or assets to any other company or (b) in the case of Vale , transfer all or substantially all of its mining properties or assets to any other company without the consent of more than 50% of the holders of the bonds in outstanding principal amounts, unless the company formed or substantially that acquires all the assets or all the properties expressly assumes the role of successor company to all the obligations of Vale Overseas and/or Vale. ○ Vale Overseas will do whatever it takes to preserve its current legal existence in the Cayman Islands. ○ Vale will always be, directly or indirectly, owner of 100% of the capital stock of Vale Overseas. ○ Vale Overseas may not (i) engage in any business that is not related to the issuance of bonds or acquisition and holding of collateral for the payment of bonds; (ii) have any subsidiary; or (iii) consolidate or merge with any other entity without the consent of the trustee under the direction of at least 25% of the holders of bonds of outstanding
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	<p>principal amounts. Vale and Vale Overseas may not make or approve any changes to Vale Overseas's incorporation documents allowing Vale Overseas to engage in any other activity without the consent of the trustee under the direction of at least 25% of the holders of the bonds in outstanding principal amount.</p> <p>VII. Fiduciary agent (indicate the principal terms of the agreement): Bank of New York Mellon acts as trustee, registrar, paying agent and transfer agent of the bonds under the indenture and its main function is to ensure the right of the investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed permits, at any time, with certain exceptions, the modification of the rights and obligations of Vale and the investors in the bonds.</p> <p>Such changes may only be made by Vale and by the trustee with the consent of the majority of the holders of the bonds in outstanding principal amounts.</p>
Other Relevant Features	<p>Bonds issued through the subsidiary Vale Overseas Ltd.</p> <p>The bonuses are rated BBB- by Standard & Poor's Rating Services, Baa3 by Moody's Investor Services, BBB low by Dominion Bond Rating Service and BBB by Fitch Ratings.</p> <p>The net proceeds from the issue of July 2020 were used for general purposes of the Company.</p>

Security	<i>Bonds Vale Canada2032</i>
Jurisdiction	USA
Quantity	Bonds are issued at a minimum value of US\$ 1,000.00.
Overall nominal value	After repurchases, as described in the item "Information on Redemption of Bonds" at the end of this item 18.12, the global face value is US\$ 296,674,000.00.
Debtor balance outstanding on the closing date of the last reporting period	R\$1,574,102,017.09
Date of issue	September 23, 2002
Restrictions on movement	None
Convertibility in shares or a right to subscribe or buy shares of the issuer	None.
Possibility of redemption	<p>I. Redemption hypotheses:</p> <ul style="list-style-type: none"> ▪ Redemption by payment of premium, at any time, at the discretion of Vale Canada. ▪ Redemption due to changes in tax legislation: if Vale Canada is required to pay additional amounts to bond holders as a result of changes in Canadian tax laws. <p>II. Redemption value calculation formula:</p> <ul style="list-style-type: none"> ▪ Redemption by premium payment: the redemption value will be the greater of 100% of the principal amount and the sum of the present values of the interest and principal remaining portions discounted at the redemption date at the Treasury equivalent rate + 0.40%. ▪ Redemption due to changes in tax laws: The redemption value will be equivalent to 100% of the principal amount added to the accrued interest added to any additional amount stipulated

	by Canadian tax legislation up to the redemption date.
Characteristics of the Bonds	<p>I. Date of Maturity: 09/15/2032</p> <p>II. Early Maturity Hypotheses: In the event of a default that is not remedied or pardoned, the trustee, under the direction of at least 25% of the holders of bonds of outstanding principal amounts, will declare the principal amount, interest calculated, and any unpaid amount owed immediately. The events of default are detailed in the indenture, among which we highlight:</p> <ul style="list-style-type: none"> ▪ lack of payment of interest, principal or premium, if any. ▪ with respect to Vale Canada the occurrence of any default, in any transaction characterized as debt and this default results in the effective acceleration of the debt. ▪ bankruptcy or insolvency by Vale Canada in Canada. ▪ Vale Canada's failure to perform or observe its covenants related to the bonds. These obligations include but are not limited to: (i) obligations to not merge or sell the entire assets or a substantial portion of Vale Canada's assets, with certain exceptions, and (ii) limitations to provide collateral in debt operations, with some exceptions allowed. <p>III. Interest: 7.2% per year.</p> <p>IV. Warranty: There is no real guarantee grant by Vale Canada or Relevant Subsidiaries.</p>

	<p>V. If the credit is unsecured or subordinated: not applicable.</p> <p>VI. Any restrictions imposed on the issuer in relation to:</p> <ul style="list-style-type: none"> ▪ the distribution of dividends: There is no restriction on the distribution of dividends by Vale Canada. ▪ the disposition of certain assets: Vale Canada may not participate in a merger with another company or transfer all or a substantial part of its assets to a third party unless: (i) the company formed by this consolidation or the third party that acquired such assets assumes the timely payment of principal and interest and all Vale Canada's other obligations in the indenture; (ii) no default event occurs as a result of the transaction; and (iii) Vale Canada, as the case may be, send the trustee a certificate attesting to the consolidation or transfer of assets; and (iv) if the company formed by this consolidation or the third party that acquired such assets is outside Canada, it meets the aspects of the Canadian tax legislation. ▪ the contracting of new debts: there is no restriction for the contracting of new debts by Vale Canada. ▪ the issuance of new securities: Vale Canada may issue, without the consent of the bond holders, new bonds in the same terms and conditions of the indenture. In addition, Vale Canada may issue new bonds with other terms and conditions. Vale has the right to guarantee, without the consent of the bond holders, the debts of its subsidiaries and to issue its own debt.
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	<ul style="list-style-type: none"> ▪ performing corporate transactions involving the issuer, its controllers or subsidiaries: <ul style="list-style-type: none"> ▪ Vale Canada Limited may not consolidate, incorporate or merge with any other corporation or make statutory arrangements in which Vale Canada Limited participates in, or sell, transport, or lease all or substantially all of the assets of its property, unless (1) immediately upon consolidation, incorporation or merger, statutory arrangement, sale, transportation or lease of the corporation formed or subsisting after such consolidation, incorporation or merger, statutory arrangement, sale, transportation or lease shall not default on performance or compliance of any terms, covenants and conditions of the indenture maintained by Vale Canada; (2) payments of principal and interest owed by the debentures and the performance and observance of all covenants and conditions expressed in the indenture shall be assumed by a satisfactory supplementary indenture, executed and delivered to the trustee by the corporation formed or subsisting after such consolidation, incorporation or merger, statutory arrangement, sale, transportation or lease; and (3) if the corporation formed or subsisting after such consolidation, incorporation or merger, statutory arrangement, sale, transportation or lease is governed by the laws of another jurisdiction, other than Canada or the United States, or any of its provinces, territories, states ("relevant tax
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Information on redemption of bonds

Bonds issued by Vale denominated in Euros (Eurobonds; VALE23) were redeemed by exercising the makewhole option of the bonds. The equivalent in dollars to the principal value of EUR 750,000,000.00 plus interest and premium was settled on March 29, 2021, totaling US\$ 921,787,675.58.

ADS Information

The following is the volume of trading information as well as higher and lower prices of Vale's ADSs:

	<p>jurisdiction"), Vale Canada Limited or the successor corporation shall be bound by the additional indenture accepted by the trustee to effect all payments on the debentures account without any withholding or deduction, to effect all taxes and legal fees ("specific fees") obligations imposed by the relevant jurisdiction unless Vale Canada Limited is solicited or charged by law or by the administrator's interpretation to withhold or deduct such specific fees.</p> <p>VII. Fiduciary agent, indicating the main terms of the agreement: The Bank of New York Mellon acts as trustee of the bonds under the indenture and its main function is to ensure the right of investors.</p>
Conditions for changing the rights guaranteed by such securities	<p>The deed permits, with certain exceptions, the modification of the rights and obligations of Vale Canada and the investors in the bonds. Depending on the type of modification, such changes may be made by the company and the trustee with the approval of the bond holders. In most of the modifications, the bond holders may approve changes to the bonds only through the consent of 66.67% of the holders of bonds of outstanding principal amounts. Some clarifications or changes that are not material may be made without the consent of the bond holders.</p>
Other relevant features	<p>Bonds issued by Vale Canada Ltd.</p>

Vale ON - ADS VALE	Average Daily Volume (US\$ thousand) ⁽¹⁾	Highest Quote (US\$) ⁽¹⁾	Lowest Price (US\$) ⁽¹⁾
Q1 2018	330.062	14.08	11.88
Q2 2018	288.529	14.71	12.11
Q3 2018	249.682	15.25	12.14

Q4 2018	332.812	15.93	12.60
Q1 2019	446,332	14.47	10.88
Q2 2019	246,713	13.46	11.11
Q3 2019	226,790	13.67	10.01
Q4 2019	221.960	13.22	10.59
Q1 2020	258.941	12.53	6.05
Q2 2020	222.781	10.36	6.97
Q3 2020	286.138	11.11	9.45
Q4 2020	375.855	16.63	9.94

⁽¹⁾ Based on closing prices

Closure of the ADS listing program at Euronext Paris

On September 25, 2019, Vale requested the termination of the ADS listing program on Euronext Paris (ISIN code US91912E1055) and the Board of Euronext Paris SA approved the aforementioned request. An orderly sale procedure was implemented from November 4, 2019 until November 15, 2019, whereby holders of ADSs listed on Euronext Paris were able to sell their securities before the end of the program and without incurring additional fees.

Additional Information on Items 18.9 and 18.10

According to Relevant Facts disclosed on March 2 and 29, 2021 by the Company, the Company was informed by the National Bank for Economic and Social Development ("BNDES") and BNDES Participações S.A. – BNDESPAR ("BNDESPAR") about the launch of the public offer of secondary distribution of subordinated participating debentures of the sixth issuance of Vale, owned by BNDES, BNDESPAR and the Federal Government ("Debentures", "Secondary Offer" and "Offerors", respectively).

The Secondary Offer consists of the secondary public distribution of 142,000,000 Debentures initially, 93,899,208 of which are Debentures held by the Federal Government, 37,500,342 Debentures held by BNDES and 10,600,450 Debentures held by BNDESPAR, to be held in Brazil, with limited placement efforts, pursuant to the Brazilian Securities and Exchange Commission Instruction No. 476 of January 16, 2009, as amended, and other applicable regulations, and will have overseas placement efforts pursuant to Rule 144A and Regulation S issued by the U.S. Securities and Exchange Commission.

The total amount of Debentures initially offered may, at the discretion of the Offerors, in mutual agreement with the Offer coordinators, be increased by up to 50.94%, i.e. up to 72,329,234 Debentures, being 47,828,576 Debentures held by the Federal Government and 24,500,658 Debentures held by BNDES, under the same conditions and at the same price as the Debentures initially offered, pursuant to the Placement Agreement ("Additional Debentures").

Vale will not receive any funds because of this Secondary Offer, as such net funds will revert in full to the Offerors and will not participate in this Secondary Offer as a potential purchaser because it does not have all the necessary regulatory authorizations and due to a capital allocation prerogative at this time.

19. Repurchase plans and treasury securities

19.1 - Information on the issuer's share repurchase plans

Date of resolution	Repurchase period	Reserves and profits (Reais)	and available	Cash	Class	Expected quantity (Units)	% rel. circ.	Purchased quantity approved (Units)	PMP	Quote factor	% acquired
Other characteristics											
July 25, 2018	August 01, 2018 to November 14, 2018	20,860,000,000.00		Common Shares	Not applicable	80,000,000	1.9600000	71,173,683	54.00	R\$ per Unit	88.970000

Other relevant characteristics

At a meeting held on June 25, 2018, the Board of Directors approved the acquisition, by Vale and/or by any of its subsidiaries, of up to 80,000,000 common shares issued by Vale, or depositary receipts representing such shares, for the purpose of cancellation and/or subsequent disposal after the end of the repurchase period, subject to the following conditions: (i) quantity to be disposed of: up to 6,200,000 common shares outstanding in the market, which may be held in treasury until they are effectively disposed of for use in the awards of executive officers eligible to Vale's Matching Program; (ii) quantity to be canceled: the difference between the shares acquired and those sold under Vale's Matching Program, which may be held in treasury until the moment of their cancellation; (iii) maximum term for acquisition: 365 days from this date; (iv) financial volume: up to US\$ 1,000,000,000.00; (v) price: the acquisition must be carried out on the Stock Exchange (B3 S.A. – Brasil, Bolsa Balcão, and NYSE – New York Stock Exchange) at market values on the respective acquisition dates; and (iv) Intermediate Financial Institutions: (a) Bradesco S.A. CTVM, headquartered at Av. Paulista 1450, 7th floor, in the City and State of São Paulo, CEP: 01310-100; (b) Itaú CV S.A., headquartered at Av. Brigadeiro Faria Lima 3400, 10th floor, in the City and State of São Paulo, CEP: 04538-132; (c) XP Investimentos CCTVM S.A., headquartered at Praia de Botafogo 501, room 601 - A1, in the City and State of Rio de Janeiro, CEP: 22250-040; (d) Santander CCVM S.A., headquartered at Av. Presidente Juscelino Kubitschek, 2041 and 2235, 24th floor, in the City and State of São Paulo, CEP: 04543-011; (e) Citigroup GMB CCTVM S.A., headquartered at Av. Paulista 1111, 14th floor (Part), in the City and State of São Paulo, CEP: 01311-920; (f) J. P. Morgan CCVM S.A., headquartered at Av. Brigadeiro Faria Lima 3,729, 13th floor (Part), in the City and State of São Paulo, CEP: 04538-905; (g) Credit Suisse Hedging-Griffo CV S.A., headquartered at Rua Leopoldo Couto de Magalhães Jr. 700, 11th floor, Itaim Bibi, in the City and State of São Paulo, CEP: 04542-000; (h) Credit Suisse Brasil S.A. CTVM, headquartered at Rua Leopoldo Couto de Magalhães Jr. 700, 10th floor (Part) and 12th to 14th floors (Parts), Itaim Bibi, in the City and State of São Paulo, CEP: 04542-000; and (i) BB Corretora (BB Gestão de Recursos DTVM), headquartered at Praça 15 de Novembro 20, 2nd and 3rd floors, rooms 201, 202, 301 and 302, in the City and State of Rio de Janeiro, CEP: 20010-010.

The Company completed, in November 2018, the repurchase program of its common shares and respective ADSs in the total amount of US\$ 1.0 billion.

The base date of the Reserves and Available Profits (Reais) refers to June 30, 2018.

19.2 - Treasury security transaction

Fiscal year 12/31/2020

Type of share	Preferred share class	Description of the securities
Common Shares	-	-
Transactions	Quantity (Units)	Weighted average purchase/sale price (R\$)
Initial quantity (Units)	156,192,313	
Purchased quantity	-	-
Sold quantity	1,628,485	41.95
Canceled quantity	-	-
Final quantity -	154,563,828	
Percentage in relation to outstanding securities of the same class and type	-	

Fiscal year 12/31/2019

Shares

Type of share	Preferred share class	Description of the securities
Common Shares	-	-
Transactions	Quantity (Units)	Weighted average purchase/sale price (R\$)
Initial quantity (Units)	158,216,372	
Purchased quantity	737	-
Sold quantity	2,024,796	46.92
Canceled quantity	-	-
Final quantity	156,192,313	
Percentage in relation to outstanding securities of the same class and type	2.96%	

Fiscal year 12/31/2018

Shares

Type of share	Preferred share class	Description of the securities
Common Shares	-	-
Transactions	Quantity (Units)	Weighted average purchase/sale price (R\$)
Initial quantity (Units)	87,042,689	
Purchased quantity	71,173,683	54.00
Sold quantity	-	-
Canceled quantity	-	-
Final quantity	158,216,372	
Percentage in relation to outstanding securities of the same class and type	2.99%	

19.3 - Other relevant information

Additional Information related to Item 19.1

On April 1, 2021, the Company's Board of Directors approved a program for the repurchase of Vale's common shares and their respective ADRs. See below the information about said program, as requested in item 19.1:

Date of resolution	Repurchase period	Reserves and profits (Reais)	and available	Cash	Class	Expected quantity (Units)	% rel. circ.	Purchased quantity approved (Units)	PMP	Quote factor	% acquired
Other characteristics											
April 01, 2021	04/01/2021 to 04/01/2022	34,064,677,743.07		Common Shares	Not applicable	270,000,000	5.3000000	10,845,215	110.20	R\$ per Unit	4.02%

Other relevant characteristics

Vale's Board of Directors approved, on April 1, 2021, the program for the repurchase of Vale's common shares, proposed by the Executive Committee.

The repurchase program will be limited to 270,000,000 common shares and their respective ADRs, representing up to 5.3% of the total number of outstanding shares, based on the shareholding composition as of February 28, 2021. The program will run for up to 12 months. The repurchase program demonstrates management's confidence in Vale's potential to consistently create and distribute value. Governed by discipline in the allocation of capital, the Company considers the repurchase of shares as one of the best investments available to the Company. The repurchase program does not compete with the intention of consistently distributing dividends above the minimum established by the dividend policy, as it has been the case since the dividend program was established.

The share repurchase program, at current prices, represents an opportunity to acquire shares and is also an important signal to the market regarding the attractiveness of Vale's shares, conveying the confidence of the company's management in delivering the company's risk reduction, provided that the following conditions are met: In the case of cancellation, it will result in a percentage increase in shareholders' equity interest and amendment to the Bylaws to adjust the number of shares issued by Vale. (ii) In the case of shares sold, it is estimated that such shares will be used in programs to retain the company's executive officers for the next 5 years.

Intermediary Financial Institutions: a) Ágora CTVM, Av. Paulista, 1450, 3rd floor, in the City and State of São Paulo, CEP: 01310-917; b) BB UBS, Av. Brigadeiro Faria Lima, 4440 - 7th floor, in the City and State of São Paulo, CEP: 04538-132; c) BRADESCO S.A. CTVM, headquartered at Av. Paulista 1450, 7th floor, in the City and State of São Paulo, CEP: 01310-100, d) CITIGROUP GM, headquartered at Av. Paulista 1111, 14th floor (Part), in the City and State of São Paulo, CEP: 01311-920; e) ITAU CV S.A., headquartered at Av. Brigadeiro Faria Lima 3400, 10th floor, in the City and State of São Paulo, CEP: 04538-132; f) J. P. MORGAN CCVM S.A., headquartered at Av. Brigadeiro Faria Lima 3.729, 13th floor (Part), in the City and State of São Paulo, CEP: 04538-905; g) Merrill Lynch S/A CTVM, Avenida Brigadeiro Faria Lima, 3400 - 18th floor, in the City and State of São Paulo, CEP 04538-132; h) SANTANDER CCVM S.A., headquartered at Av. Presidente Juscelino Kubitschek, 2041 and 2235, 24th floor, in the City and State of São Paulo, CEP: 04543-011; and i) XP Investments CCTVM, Av. Chedid Jafet, 75 - Torre Sul, in the City and State of São Paulo, CEP: 04551-060. For the purchase of ADRS on the New York stock exchange, the brokers of the institutions mentioned above will be used.

The repurchase program complies with the regulation of the Brazilian stock market, and the acquisition must be carried out on the Stock Exchange (B3 S.A. – Brasil, Bolsa, Balcão, and NYSE – New York Stock Exchange), at market values on the dates of the respective acquisitions.

The base date of the Reserves and Available Profits (Reais) refers to March 31, 2021.

The base date of the information regarding the number of shares purchased, weighted average purchase price and percentage of shares purchased compared to the approved total refers to April 30, 2021.

Additional Information related to Item 19.2

Period from 01/01/2019 to 12/31/2019

With regard to the period above, it is clarified that in the field "Sold Quantity" included in item (b) above, 2,024,059 shares were considered to be delivered as a result of the 2016 Matching Program. For further information on the Matching, see item 13 of this Reference Form.

Period from 01/01/2020 to 12/31/2020

With regard to the period above, it is clarified that in the field "Sold Quantity" included in item (b) above, 1,628,485 shares were considered to be delivered as a result of the 2016 Matching Program. For further information on the Matching, see item 13 of this Reference Form.

Period from 01/01/2021 to 04/30/2021

Type of share	Preferred share class	Description of the securities
Common Shares	-	-
Transactions	Quantity (Units)	Weighted average purchase/sale price (R\$)
Initial quantity (Units)	154,563,828	
Purchased quantity	10,845,215 ¹	110.20
Sold quantity	890,482 ²	101.60
Canceled quantity		-
Final quantity -	164,518,561	-
Percentage in relation to outstanding securities of the same class and type	-	-

⁽¹⁾ Shares purchased under the Repurchase Program described in this item 19.3

⁽²⁾ Shares used as bonus for executives as a result of the Matching Program. For further information on the Matching, see item 13 of this Reference Form.

For information on the Company's financial operations through the use of financial instruments, including derivatives, see item 5.2 of this Reference Form.

20. Securities trading policy

20.1 - Information on securities trading policy

Policy approval date	February 21st, 2020
Entity responsible for the approval	Board of Directors
Related Parties	Vale Controlling shareholders Representatives of the controlling shareholders Members of Vale's Board of Directors Members of Vale's Audit Committee Members of the Advisory Committee to Vale's Board of Directors and Board of Executive Officers Executive Officers Executives of Vale Directors of Vale's Subsidiaries Employees who, as a result of their position, function or job in the Company, and/or in its subsidiaries, have knowledge of privileged information. Publicly-held companies under the control of the Company. Suppliers, service providers and third parties retained by Vale.

Main characteristics

Vale's Trading Policy, formulated in accordance with the CVM Instruction no. 358/02 and its subsequent amendments ("CVM Instruction 358"), and with Vale's Code of Conduct, is intended to contribute to an orderly trading of securities issued by Vale, or referenced thereto, removing any presumption of inappropriate use of information related to a material act or fact about Vale ("Privileged Information"). The Company's Securities Trading Policy ("Trading Policy") was last revised on February 21, 2020, and, on this occasion, it was unified with the Material Act or Fact Disclosure Policy.

The Trading Policy is also intended to contribute to compliance with the laws and regulations of the United States of America, where Vale shares are traded on the stock exchange in the form of ADRs, which prohibit insider trading/dealing (use of privileged information for one's own benefit), including the practice of tipping (providing privileged information for the benefit of third parties).

For the purposes of the laws and regulations of the United States of America, a person engages in (i) insider trading practices if he/she buys or sells securities when in possession of material, non-public information that has been obtained or used in breach of a duty of trust and confidence, and (ii) tipping, if he/she provides the same type of information to third parties, who eventually takes advantage of such information to practice insider trading.

The publicly-held companies controlled by Vale shall adopt the Vale's Trading Policy, with such adjustments as may be required by the local laws and regulations applicable to such companies and to the markets in which their respective securities are traded.

The prohibitions contained in the Trading Policy cover any purchase, sale or transfer of securities issued or secured by Vale, that apply to all Related Parties, as defined in the Policy.

Any violation of the provisions of the Company's Trading Policy will be considered a breach of Vale's Code of Conduct and subject to its procedures and penalties, as well as penalties provided

for by law or CVM rules, in addition to full compensation for damages caused to Vale and third parties.

Projected periods of prohibition of trading and description of the procedures adopted to supervise trading in such periods

In addition to the CVM Instruction 358, the Related Parties shall not negotiate the securities issued by Vale and publicly-held companies under its control:

- i. Within fifteen (15) days prior to the disclosure of the Company's quarterly information (ITR) and annual information (DFP);
- ii. In the period between the decision made by the controlling shareholders or by the Company management to: (i) change Vale's capital stock through subscription of shares; (ii) approve a program for the acquisition or sale of shares issued by Vale by the Company itself; and (iii) distribute dividends or interest on shareholders' equity, stock bonuses or their derivatives or split, and publication of the respective notices and/or announcements or bulletins; and
- iii. During any other period designated by the Executive Officer responsible for Vale's Investor Relations functions, upon prior authorization by the Chairman of the Board of Directors, at the request of the Chief Executive Officer.

According to the hypotheses foreseen in items i and iii, an e-mail will be sent with a reminder by the Investor Relations area to the representatives of the controlling shareholders, managers, members of the Audit Committee and other employees about the blackout period, informing the beginning and the end of the period of prohibition. Failure to send a reminder about the Blackout Period will not exempt the Related Parties from complying with the Trading Policy, as well as the provisions of CVM Instruction No. 358/02 and other CVM normative acts.

The Related Parties will be entitled to trade securities issued by Vale, observing the aforementioned prohibition periods, with a long-term investment objective, and it is recommended that the ownership of securities issued by the Company be maintained for a minimum period of 6 months.

Locations where the Policy can be consulted

Vale's Trading Policy can be found at Company's headquarters, on Company's website (www.vale.com), in the Investors section (<http://www.vale.com/brasil/PT/investors/company/corporate-governance/policies/Paginas/default.aspx>), on the Sistema Empresas.Net on the website of the Comissão de Valores Mobiliários – CVM (Brazilian Securities and Exchange Commission), (www.cvm.gov.br), and on the website of B3 S.A. – Brazil, Bolsa, Balcão (“B3”) (www.b3.com.br).

20.2 - Other relevant information

The Vale's Trading Policy rules also apply in cases in which the trading by Related Parties are carried out for the direct and/or indirect benefit of the Company through:

- A company directly or indirectly controlled by Related Parties;
- Third parties with which Related Parties maintain a financial assets portfolio management, trust or administration contract;
- Attorneys or agents to Related Parties; and
- Spouses from whom the Related Parties are not legally separated, common-law spouses, children and any dependents included in the Related Persons' annual income tax return, as applicable.

The Related Parties shall ensure, to the extent possible and whenever they are unable to negotiate, that the natural persons and legal entities mentioned above also refrain from trading securities issued by the Company.

The Company's Trading Policy also applies to any Related Party who may discharge from the Company, prior to the public disclosure of a business or fact initiated during its term of office, and it shall extend for a period of six months after the officer's dismissal.

The restrictions set out above do not apply to trading conducted by investment funds of which the Related Parties are quota holders, provided that: (a) the investment funds are not exclusive; and (b) the trading decisions of the fund manager cannot be influenced by quota holders.

The controlling shareholders, members of the Board of Directors, of its advisory committees, of the Board of Executive Officers and Fiscal Council shall send a written notice, in accordance with article 11 of the CVM Instruction 358, to the Chief Investor Relations Officer, and from him to CVM and, if necessary, to B3:

- (a) the number of securities issued by Vale, including derivatives or any other securities referenced in shares and investment fund shares composed exclusively of shares issued by Vale, and of controlled or controlling companies that are publicly-held companies, which eventually they have, as well as those owned by their spouse, unless they are de facto or judicially separated from them, and from a partner;
- (b) of any dependent included in the annual income tax return and of companies controlled by them directly or indirectly;
- (c) of people acting in the same interest; and
- (d) changes in the positions referred to above.

The communication provided for in the paragraph above shall be made (a) on the first business day after their investiture; and (b) within 5 days after the consummation of each business, containing at least the following information: (i) name and qualification of the person providing the information, including of the people mentioned in item "b" in the aforementioned paragraph, indicating the registration number in the Brazilian Registry of Legal Entities or in the Brazilian Registry of Natural Persons, in case they reside in Brazil; (ii) quantity (in case of shares) and other characteristics (in case of other securities), in addition to the identification of the issuer and the balance of the position held before and after trading; and (iii) form (purchase or sale, loan operations), price and date of the operations.

The persons mentioned above must inform any change in the information provided in the "Statement of Shareholding" within up to fifteen (15) days from the date of the change.

The Chief Investor Relations Officer, in turn, shall convey to CVM and to the stock exchanges the information received individually or in a consolidated manner, as the case may be, within 10 days

from the end of each month in which the changes to the positions held are identified, or the month that the investiture on the position occurs.

In addition, in line with the CVM Instruction 568, dated September 17, 2015, the Chief Investor Relations Executive Officer shall send CVM and stock exchanges, where Vale shares are listed for negotiation, the information on the negotiation referred to in the paragraphs above with respect to the securities traded by Vale itself, its subsidiaries and affiliates, including derivative transactions or any other securities referenced thereto.

The Related Parties must sign the respective Adhesion Term, whose draft is attached to the Material Act or Fact Disclosure Policy and Trading of Securities, which will be filed by the Investor Relations area at the Company's headquarters as long as its signatory maintains with Vale and for at least five years after its termination.

21. Information Disclosure Policy

21.1 - Description of the internal rules, regulations or procedures related to the disclosure of information

On February 21st, 2020, Vale's Board of Directors approved the review and unification of its Policy for Disclosure of Material Acts or Facts ("Disclosure Policy") and of Trading of Securities.

The Information Disclosure Policy mentioned governs the disclosure of information that can be a hypothesis of Material Act or Fact and is based on the following basic principles: (a) transparency, information symmetry, fair treatment and respect for investor rights; (b) adherence to the best global investor relations practices; (c) good faith; (d) use of means to prevent the inappropriate use of privileged information; and (e) compliance with the specific legislation of Brazil and the United States of America to the regulations of the Brazilian Securities and Exchange Commission ("CVM"), and the US Securities and Exchange Commission (SEC), hereinafter referred to as "Regulatory Bodies", and the rules of the stock exchanges where the securities issued by Vale are listed and traded ("Stock Exchanges").

The Disclosure Policy applies to the controlling shareholders and their eventual representatives, to Vale, to the members of the Board of Directors, the Fiscal Council and the Advisory Committees to the Board of Directors and the Executive Board of Directors, to the Executive Officers, Vale executives, to the directors of its subsidiaries and by anyone who, as a result of their position, function or position in Vale and/or in its subsidiaries, has knowledge of information related to a Material Act or Fact about Vale, including suppliers, service providers and third parties, denominated, jointly or individually, as Related Parties.

The Disclosure Policy also applies to any Related Party who may discharge from the Company, prior to the public disclosure of a business or fact initiated during its term of office, and it shall extend for a period of six months after the officer's dismissal.

The publicly-held companies controlled by Vale shall adopt the Disclosure Policy, with such adjustments as may be required by the local laws and regulations applicable to such companies and to the markets in which their respective securities are traded.

The trading prohibitions contained in the Trading Policy cover any purchase, sale, loan operations or transfer of securities issued or secured by Vale.

Any Related Party who has knowledge of information related to a Material Act or Fact shall immediately communicate it to the DIRI and/or the Investor Relations Officer.

21.2 - Description of the material act or fact disclosure policy, indicating the communication channel(s) used to disseminate information about material acts or facts, and the procedures related to maintaining secrecy about undisclosed relevant information and where the policy can be consulted

According to the Disclosure Policy, Vale shall make public strategic, administrative, technical, business, financial or economic information capable of affecting the prices of its securities and/or influencing investors' decision to keep or sell them or to exercise any rights inherent to the condition of securities holders (Material Act or Fact), in accordance with the applicable laws and regulations.

Vale's controlling shareholders and their eventual representatives, Vale, the members of the Board of Directors, the Fiscal Council, the Advisory Committees of the Board of Directors and the Board of Executive Officers, the executives of Vale, the directors of its subsidiaries and by whom whether, as a result of his position, function or position at Vale and/or its subsidiaries, he is aware of information relating to a Material Act or Fact about Vale, including suppliers, service providers and third parties, they shall report any information regarding the Act or Material Fact that the Executive Officer of Finance and Investor Relations ("DRI") and/or the Executive Manager of the Investor Relations area are aware of.

All information considered relevant, which is not yet public knowledge, and which is disclosed, whether intentionally or not, to analysts, investors, journalists or to any other person who is not (i) a member of the Board of Directors, Fiscal Council or Advisory Committees of the Board of Executive Officers of Vale; (ii) member of Vale's Executive Board; or (iii) an employee of Vale and its subsidiaries, directly involved with the matter at hand, must be immediately made public in accordance with the applicable rules and regulations.

The disclosure of a material act or fact will be carried out, preferably, before the beginning or after the ending of the stock exchanges sessions where the securities issued by Vale are traded. If it is imperative that the disclosure occurs during the trading period, the DRI directly or, through the Investor Relations area, shall request the suspension of trading of the securities until the relevant information is properly disseminated and the procedures provided in the edited regulations published by the Stock Exchanges on the subject.

Access to information on a Material Act or Fact, prior to its public disclosure, is limited to the professionals directly involved with the subject matter. Those professionals shall adequately store this information, keep it confidential until it is publicly disclosed and ensure that its subordinates and service providers subject to confidentiality obligations also do so, being jointly liable therewith in case of noncompliance. Those professionals are also subject to a confidentiality agreement entered into with Vale.

Relevant Facts or Acts may, exceptionally, have the disclosure postponed if the controlling shareholders or the directors understand that their disclosure will put the Company's legitimate interest at risk. In this case, access to information related to the undisclosed Material Act or Fact must be restricted to people who, justifiably, need to know them. If the information is out of control or if there is an unusual fluctuation in the quotation, price or amount traded in the securities issued by the Company, the Related Parties, as the case may be, are obliged to immediately disclose the Material Act or Fact through the DRI, or directly if it does not.

The Investor Relations area is primarily responsible for preparing external communications for the capital market, which must be necessarily reviewed and approved by the Investor Relations Executive Director ("DRI") and, if necessary, by the General Counsel of Vale.

In the case of Material Acts or Facts, Vale will observe the relevant legislation and regulations of the Regulatory Bodies and Stock Exchanges, to ensure speed, simultaneity and global disclosure. Vale shall disclose information to the capital market using the forms and communication channels described below:

- Material Act or Fact information will be disseminated globally and simultaneously, electronically, in Portuguese and English, and filed immediately.
- The disclosure of a Material Act or Fact will take place on a news portal with a page on the world wide web, on the websites of the CVM and the operating entity in operation (B3 SA - Brasil, Bolsa, Balcão), through the Empresas.NET System, as well as placed on the "Investor Relations" page on Vale's website (www.vale.com). Data on the channels used by Vale shall be informed on the Company's Registration Form, filed with the CVM.
- Telephone conferences and webcasts shall be held every quarter for the dissemination of results and on an exceptional basis, if necessary. The holding of these events shall be previously announced publicly to the capital market, with indication of date, time and telephone numbers for connection. Such conferences and webcasts shall be recorded and will be available on Vale's website, in the "Investor Relations" section.

At the management's discretion, Vale shall have an active participation in conferences, roadshows, meetings or events for investors around the world, as well as promoting meetings with capital market participants and/or visits to its operations, regardless of whether there is an issuance of securities or not in progress.

In meetings or video/audio conferences with capital market participants, Vale may be represented by the Chief Executive Officer, by DRI, by other Executive Officers, by members of the Investor Relations area or by authorized persons, in writing or verbally, by the DRI or the Company's Chief Executive Officer.

Vale's Disclosure Policy can be found at Company's headquarters, on Company's website (www.vale.com), in the Investors section (<http://www.vale.com/brasil/PT/investors/corporate-governance/policies/Paginas/default.aspx>), on the Sistema Empresas.Net on the website of the Comissão de Valores Mobiliários – CVM (Brazilian Securities and Exchange Commission), (www.cvm.gov.br), and on the website of B3 S.A. – Brazil, Bolsa, Balcão ("B3"), (www.b3.com.br).

21.3 - Directors responsible for implementing, maintaining, evaluating and supervising the disclosure policy

DRI is primarily responsible for the disclosure of information regarding Relevant Acts or Facts, the latter being responsible for:

(a) rigorously analyzing the concrete situations that may arise in the course of the Company's operations, always considering their materiality, sector specificity, concreteness or strategic importance, in order to verify whether or not such situations constitute a Material Act or Fact;

(b) sending to CVM, through the CVM's Information Disclosure System and, if applicable, to the Stock Exchanges, any Material Act or Fact occurred or related to its business, as well as ensuring its wide and immediate dissemination simultaneously in all markets where such securities are admitted to trading;

(c) in the event of an atypical fluctuation in the quotation, price or quantity traded of securities issued by the Company or others referenced to them, inquiring persons with access to a Relevant Act or Fact to ascertain whether they are aware of information that should be disclosed to the market and, if so, ensure that the information is immediately disclosed to the market, pursuant to this Policy;

(d) if it notices the broadcast of news in the press involving insider information or news that add a new fact about information already disclosed, analyzing the potential impact of the news on the negotiations and, if applicable, express itself immediately on the aforementioned news, through the CVM's Information Disclosure System.

21.4 – Other relevant information

The disclosure of projections and estimates is optional, under the terms of article 20 of CVM Instruction 480, of December 7, 2009 (as amended) and, when the Company decides to disclose them, they must be: (a) included in the Reference Form; (b) identified as hypothetical data that does not constitute a promise of performance; (c) reasonable; and when applicable, (d) be accompanied by the relevant assumptions, parameters and methodology adopted, and, if these are modified, the Company must disclose, in the appropriate field of the Reference Form, that it has made changes to the relevant assumptions, parameters and methodology of previously released projections and estimates.

The disclosure of projections and estimates will also observe the rules of the other countries in which Vale's securities are traded, in particular the relevant rules regarding Form 20-F to be filed with the Securities and Exchange Commission (SEC).

In addition, pursuant to Art. 12 of CVM Instruction 358/2002 ("CVM Instruction 358"), as amended, the direct or indirect controlling shareholders, the shareholders that elect members of the Board of Directors or of the Audit Committee, and any natural person or legal entity or group of persons, acting jointly or representing a same interest, who directly or indirectly purchases or sells relevant shareholding interest that corresponds, directly or indirectly, to a variation, upwards or downwards, of 5% (five percent) or more regarding the type or class of shares representing the capital stock of Vale must, in accordance with article 12 of CVM Instruction 358, immediately send a notice Vale's Investor Relations area with the following information: (a) name and qualification of the purchaser, with its registration number in the Brazilian Registry of Legal Entities ("CNPJ") or in the Registry of Natural Persons ("CPF"), when applicable; (b) the objective of the interest and the amount targeted, containing, if applicable, a statement by the purchaser that its purchases are not intended to change the composition of Vale's ownership or administrative structure; (c) number of shares and other securities and derivative financial instruments referenced to such shares, being their settlement physical or financial, specifying the number, class and type of referenced shares; and (d) description of any agreement or contract regulating the exercise of voting rights or the purchase and sale of securities issued by Vale; and (e) in the case of a shareholder resident and domiciled abroad, the name or corporate name and the CPF or CNPJ registration number, as the case may be, of the representative or legal representative thereof in the country.

For the purposes of disclosure of the information referred to above, the business or group of businesses through which the direct or indirect interest of the persons referred to above exceeds, upwards or downwards, 5%, 10%, 15% and so on, of a type or class of shares representative of Vale's capital stock.

The aforementioned obligations extend to the purchase of any rights to the shares and other securities mentioned therein and to the conclusion of any derivative financial instruments referenced to shares issued by Vale, even without physical settlement, in compliance with the rules of Paragraph 3 of Art. 12 on CVM Instruction 358.

Any corporate transaction that implies a change in the shareholding position in Vale of the shareholders to its direct or indirect controllers will imply the obligation of the latter to communicate to the Investor Relations area of Vale.

The disclosure obligations described above shall always consider the aggregate transactions, including those executed indirectly by third parties, such as: (i) companies controlled directly or indirectly by the investor; (ii) trustees; (iii) private and exclusive investment funds; and (iv) investment funds in which the fund manager's business decisions are influenced by the investor.

The DRI shall immediately transmit to CVM and B3 - Brasil, Bolsa, Balcão ("B3"), in accordance with the first item above, as well as update the corresponding section of the Reference Form within a maximum of seven (7) business days.