

2022
nexa

Annual Report



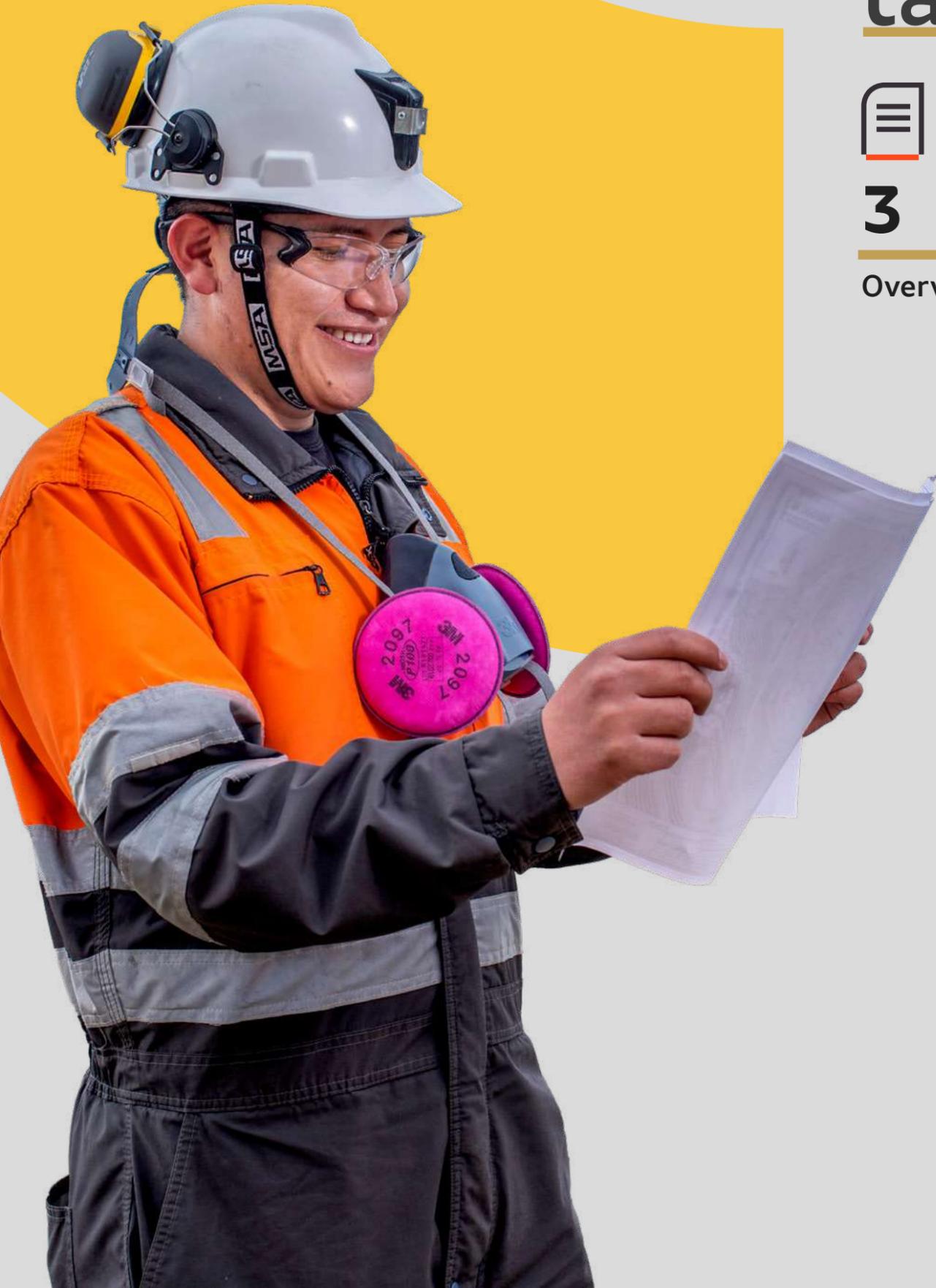


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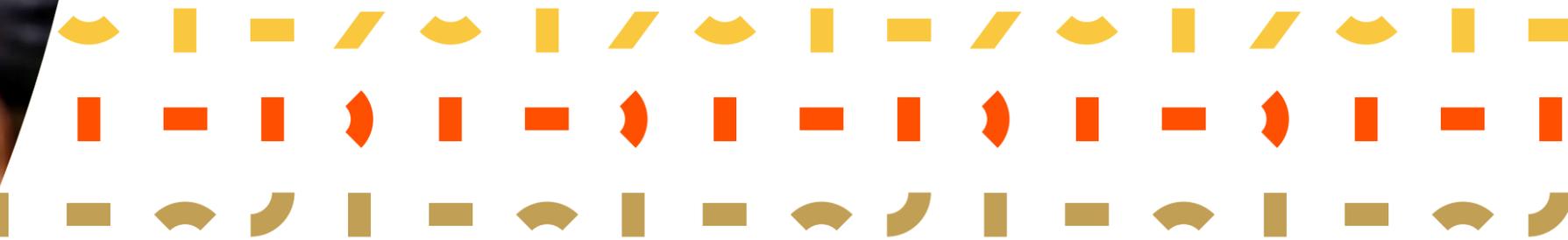
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Overview

Welcome to the 2022 Nexa Resources S.A Annual Report, an account of our key initiatives and results across the environmental, social and governance aspects in the period from January 1 to December 31, 2022.

Consistent with our purpose to integrate mining into an ever-changing world as an opportunity for sustainable development, we have organized the report chapters around our four strategic pillars — Performance, Growth, Culture and ESG. The report addresses aspects we have identified as being relevant to our communities, employees, suppliers, shareholders and other stakeholders, connected to our ESG pillars, and our 12 material topics (read more in the [chapter About Nexa](#)).

The contents of this report have been prepared in accordance with the International Integrated Reporting Council (IIRC) and the Global Reporting Initiative (GRI), in addition to the guidelines of the Sustainability Accounting Standards Board (SASB) Standards, and recommendations of the Task Force on Climate Related Financial Disclosure (TCFD). The financial disclosures are consistent with International Financial Reporting Standards (IFRS).

The basis of preparation for this report can be found on our [website](#). The information herein has been independently assured by Auditores Independentes Ltda. Independent third-party assurance engagements are approved by the Audit Committee and the Board of Directors. The consolidated financial statements and the independent audit report are available for download on our investor relations websites (ri.nexaresources.com e riperu.nexaresources.com), under the Results Center section. The previous edition of this report referring to the year 2021 was published May 2022 and is available [here](#). **GRI 2-5, 2-14**

For a more reader-friendly experience, at the beginning of each chapter and throughout the report we provide references to the relevant disclosures, standards, pillars or the capitals underpinning value creation¹.

¹. Learn more at <https://www.globalreporting.org/>; <https://www.sasb.org> and <https://relatointegradobrasil.com.br/>.

2022: a year of successes and transformation



One of the most noteworthy milestones on our journey in 2022 was undoubtedly Nexa's public pledge to expand its ESG focus, working within a clear and well-designed strategy and goals up to 2030 across the environmental and social areas, supported by a sound governance framework.

During the year, we publicly announced our strategic levers, our new purpose, and our ESG commitments, an important step in strengthening our communication with investors and enhancing transparency with the market. This will help us to build trust while bolstering our commitment to sustainable growth.

Championing this mission is our Sustainability Committee, under the Board of Directors, which exercises strategic oversight of this agenda and its alignment with our purpose: *"To integrate mining into an ever-changing world as an opportunity for sustainable development"*.

In 2022, we have evolved with our growth aspiration with the start of ramp-up activities at the Aripuanã mine in northwestern Mato Grosso. The new mine was developed in line with our ESG strategy, with strong sustainability performance across the environmental and social dimensions, and with a low-cost, long-life mine design.

Our commitment to excellence in everything we do and, above all, the engagement and dedication of our employees and the members of the Board of Directors, as well as the trust of our shareholders, customers, suppliers, and the community, have led us on this successful journey, with optimistic prospects for the future.

Despite the challenges we see ahead, including economic and political turbulence and international conflicts, our company will continue to fulfill its purpose, commitments and ambition to excellence and to create prosperity for all stakeholders.

Jaime Ardila
Chairman of the Board of Directors



Nexa: Mining that changes with the world

The year 2022 was a testament to our adaptability and resilience amid challenging global economic conditions. Proof of this is that we ended the year with a record adjusted EBITDA of USD 760 million, updated and expanded our ESG goals, and the start of the ramp-up of Aripuanã mine, located in the Midwest region of Brazil and Nexa's largest investment in Brazil, at USD 632 million.

During my first year as CEO of the company, we took significant steps in alignment with our new purpose, as articulated to stakeholders in 2022: *"To integrate mining into an ever-changing world as an opportunity for sustainable development"*. To move in this direction, we strengthened our ESG strategy, focused on the generation of value, as well as our organizational culture, going through a restructuring, particularly at the corporate level. All this is aimed at optimizing teams and resources, streamlining processes, and improving the efficiency and productivity of our business, while also focusing on the sustainability of our results and strategy in the short, medium, and long term.

We publicly launched our ESG strategy, including long-term priority commitments in various areas, such as water use and disposal, safety, plurality (diversity, equity, and inclusion), as well as reducing CO₂ emissions. In addition, we engaged with the financial market through the first Nexa Day on the New York Stock Exchange, and we continue to focus on our generating cash strategy for our company through a clear work plan that includes environmental, social and governance topics.

The safety of our people remained our main value. Our operations are focused on continuing to improve our safety protocols. Corrective actions to this end were taken and investments were made in the identification of risks, in the improvement of standards, and in the implementation of effective controls.

Finally, it should be mentioned that we were exposed to many challenges related to the global economic instability, which contributed to the increase of energy costs and the main inputs of our operations. We have faced international conflicts, and environmental issues such as climate change, which has led to heavy rainfall in Brazil, affecting our activities. Overcoming such challenges was largely possible due to the adoption of robust financial and operational discipline and especially because we have a focused team committed to our results.

We want to express our thanks to all our employees and to the Board of Directors for all the support and commitment in achieving our goals.

Thank you!

Ignacio Rosado
Chief Executive Officer



About Nexa

GRI 2-1, 2-6

We are a company with over 65 years of experience developing and operating mining and smelting assets in Latin America, and we are among the top five zinc producers in the world. In addition to zinc and byproducts such as silver and gold, we also produce copper and lead. We are one of the subsidiaries of the Votorantim S.A. conglomerate, our controlling shareholder (which holds 64.7% of our equity). Nexa Resources S.A. was created in 2017 as a merger of our Brazilian and Peruvian operations.

Our products are part of people’s daily lives and are present in a variety of applications. The zinc we produce is used in applications ranging from agriculture to airplane manufacturing, and copper is used in the production of cars and smart phones. Both are essential minerals for the energy transition from fossil to renewables, as they are used, for example, in wind turbines and solar panels.

In 2022 we aligned our purpose around **mining that changes with the world**, recognizing the need to increasingly integrate our operations with opportunities for sustainable development in our communities.

Since October 2017, our shares have been traded on the New York Stock Exchange (NYSE). Additionally, shares of subsidiary

Nexa Peru are traded on the Lima Stock Exchange (BVL). We are headquartered in Luxembourg City (Luxembourg) and have corporate offices in São Paulo (Brazil) and Lima (Peru). We also have sales offices in Brazil, Peru and Luxembourg, and also sales representatives in the U.S..

We operate six polymetallic mines, three in Peru (Cerro Lindo, El Porvenir and Atacocha), two in the state of Minas Gerais (Vazante and Morro Agudo), and the newest in the state of Mato Grosso (Aripuanã), which began operations in 2022 (read more in the [chapter Growth](#)).

In 2022, we produced 296.4 thousand tonnes of zinc in our mines. We also operate three zinc smelters: Cajamarquilla, in Peru, and Três Marias and Juiz de Fora, in Brazil, which produce metallic zinc, zinc oxide and several by-products. In addition, we have ongoing mineral exploration Programs in Peru, Brazil, and Namibia.



Mining that changes with the world

Our purpose is to integrate mining into an ever-changing world as an opportunity for sustainable development.



Cajamarquilla is among the five largest zinc smelters in the world by volume produced and is the largest in the Americas. In 2022 our combined Brazilian-based smelters sold 616,200 tonnes of products—including 575,886 tonnes of metallic zinc and 40,315 tonnes of zinc oxide—to customers worldwide in various segments such as transportation, energy, agriculture, healthcare, and consumer goods.

Among our competitive advantages is the vertical integration from mine to smelter. In Brazil, the zinc concentrate produced in the Vazante and Morro Agudo mines is processed into metallic products at the Três Marias smelter. The Juiz de Fora smelter processes concentrate as well as secondary feed materials (such as scrap and electric arc furnace dust) to produce zinc. In Peru, most zinc concentrate produced in the Cerro Lindo, El Porvenir and Atacocha mines is processed at the Cajamarquilla smelter.

Nexa's net revenue was US\$ 3.0 billion and adjusted EBITDA was US\$ 760 million in 2022. At year-end, we had a workforce of 5,624 direct employees (not including interns and apprentices), and 8,596 permanent and 3,795 temporary contractors, largely engaged in technology deployment and automation, engineering and mineral exploration. tonnes. **GRI 2-7, 2-8,**

SASB EM-MM-000.B



Strategic position and integrated value chain

Our asset portfolio includes the largest underground zinc mine in Peru (Cerro Lindo) and the largest zinc smelter in the Americas (Cajamarquilla). More than half of the zinc delivered to our smelters comes from our own mines. When Aripuanã reaches its full capacity, we expect this percentage to reach 70%.

OPERATIONS MAP

Mining and processing

- Brazil**
 - Vazante
 - Morro Agudo
 - Aripuanã
- Peru**
 - Cerro Lindo
 - El Porvenir
 - Atacocha

Smelter

- Brazil**
 - Três Marias
 - Juiz de Fora
- Peru**
 - Cajamarquilla

Offices

- Luxemburgo**
 - Luxembourg City (headquarters, corporate & sales office)
- Brazil**
 - São Paulo (corporate & sales office),
 - Belo Horizonte ((corporate)
- Peru**
 - Lima (corporate & sales office)

Mineral exploration projects

- Brazil**
 - Bonsucesso (Paracatu, MG)
- Peru**
 - Florida Canyon (Amazonia region),
 - Magistral (Ancash region),
 - Hilarión (Ancash region),
 - Pukaqaqa (Huancavelica region),
 - Shalipayco (Huancavelica region)
- Namibia**
 - Otavi



NEXA BY THE NUMBERS

- 4%** of global zinc production
- US\$ 3.0 billion** in consolidated net revenue
- US\$ 381 million** in CAPEX
- US\$ 44 million** invested in mineral exploration
- US\$ 760 million** adjusted EBITDA
- 5,624** direct employees
- 8,596** permanent contractors
- 3,795** temporary contractors



Materiality

GRI 3-1, 3-2, 3-3

According to the GRI Standards, an organization’s materiality matrix is a list of topics identified as being most relevant in guiding its strategy and management, and its communications with stakeholders—employees, customers, shareholders, suppliers, government and communities—and broader society. Our materiality matrix is updated every three/ four years or as otherwise necessary, with the next update due in 2023. In 2022 we maintained the material topics from the previous year.

Nexa’s material topics

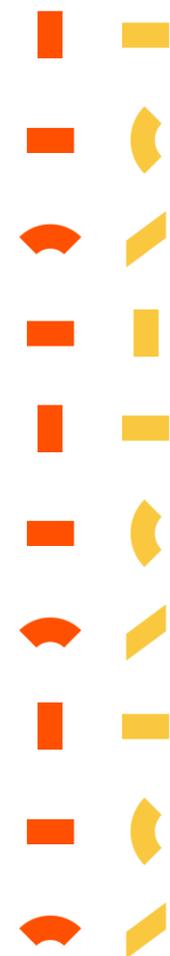
- Ethics and compliance
- Operational excellence
- Water resources management
- Dam management
- Waste and tailings management
- Social management
- Decommissioning
- Climate change
- Plurality
- Reputation
- Health, safety and well-being
- Innovation

Relevant Topics			
Material topic	Why it is material	Boundary of impact	Who is involved
Ethics and compliance	We are committed to upholding the highest standards of ethics and integrity company-wide through our Compliance Program. Our Board of Directors plays a key role in promoting the Program and ensuring compliance. Our publicly disclosed Code of Conduct is shared with all our stakeholders, including employees, suppliers, customers, communities, NGOs, government agencies, shareholders, and other individuals and organizations with whom we interact. The Code outlines our commitment to excellence in our practices and provides an effective framework for managing and mitigating risks.	All operations	Nexa, employees, shareholders, suppliers, customers, trade associations, governments and communities
Operational excellence	We aim to be increasingly competitive in order to maximize the value of our existing operations. We invest in projects that ensure operational stability, increase capacity utilization, and continuously streamline costs, productivity, and capital employment.	All operations	Nexa, employees, shareholders and customers
Water resources management	We are committed to responsible water resources management. Both our mining and our smelter operations are highly reliant on water, and we are constantly seeking ways to reduce consumption and increase reuse in our operations.	All operations	Nexa, employees and communities
Dam management	Our dam management policy sets out methods and procedures to ensure the stability of our tailings dams; we are investing in research to develop alternatives to our current tailings disposal practices; and we are committed to upholding safety standards that exceed regulatory requirements. We follow the guidelines issued by the International Commission on Large Dams in managing and monitoring our 48 tailings dams and dry-stack storage facilities (24 in Brazil and 24 in Peru), and 1 water deposit in Brazil. We also follow 7 Golden Rules for Tailing Deposits Management, which are mandatory.	All operations	Nexa, employees, environmental regulators and communities
Waste and tailings management	We seek to reduce the generation of mining and metallurgical waste, complying with applicable local legislation, and acting in accordance with our strategic commitment, working to co-create a positive legacy for society. We are also developing circular-economy solutions to turn waste into new products for use in other segments, diverting them from disposal. Brazil's National Waste Policy contains certain requirements on corporate responsibility for waste management.	All operations	Nexa, employees, suppliers and communities
Social management	Our operations are designed to co-create a positive legacy in the locations where we operate, and we maintain constant and close dialog with communities, working to develop a positive relationship with stakeholders. Our strategy operates across four levers: local development, water, education, and Social License to Operate.	All operations	Nexa, employees and communities



Relevant Topics

Material topic	Why it is material	Boundary of impact	Who is involved
Decommissioning	Our premise is to assess impacts in all phases of a project, since any operation starts. In the engineering and, especially, in the development stage, impacts are evaluated and appropriate mitigation measures/offsets are implemented. All of our mining operations develop decommissioning plans—whether or not this is a legal requirement—with the participation of local communities. In our assessments, we consider the community’s vision, the risks involved and our commitment to leaving a legacy for the future. Our mining operations should serve as a catalyst for sustainable local development.	All operations	Nexa, employees, environmental regulators, local governments and communities
Climate change	Our mining, smelting and logistics operations are energy-intensive. Recognizing this, we have developed innovative projects in collaboration with a wide range of partners to improve our performance in using clean energies and reducing greenhouse gas emissions in our operations and along the value chain. These efforts have supported local policies and initiatives aiming to mitigate climate change.	All operations	Nexa, employees, suppliers and communities
Plurality	We recognize that achieving diversity is currently a challenge within the mining industry. We acknowledge the need to develop a more diverse and inclusive environment, in which everyone in the organization, without distinction, is recognized, valued, listened to and empowered. Our Plurality Committee and affinity groups have coordinated a wide range of initiatives to consistently promote diversity across our operations.	All operations	Nexa, employees, suppliers and communities
Reputation	We aspire to change with world, and as an important part of the scenario, we want to build the future of mining, focusing our efforts on sustainability in our practices, people, and the environment, while building close and transparent relationships with our stakeholders, thereby co-creating a positive legacy for society and future generations.	All operations	Nexa, employees, suppliers, customers, shareholders, governments and communities
Health, safety and well-being	We invest continuously in enhancing a health and safety culture among our employees and contractors, and in improving training—especially on high-risk activities—and working conditions. We also address quality of life and mental health encouraging our employees to find a work-life balance.	All operations	Nexa, employees, suppliers and communities
Innovation	A enabler of strategic levers of growth and operational excellence, innovation makes our operations safer, minimize waste and optimize production. As part of our efforts, we perceive technology trends, and create new ways of working across different areas. We collaborate with our partners through the Mining Lab platform, and with mining innovation hubs in Brazil and Peru that we have helped to found. We do open innovation as part of our goal to keep Nexa competitive and prepared for the future. We catalyze innovation by connecting people and processes, transforming mining into a lever for local, long-term development. We also identify new applications for our materials, in order to create value and turn waste into assets.	All operations	Nexa, employees, suppliers, customers, governments and communities





Business strategy

In 2022 we launched our new purpose, in line with our role in society: “To integrate mining into an ever-changing world as an opportunity for sustainable development.”

We recognize that base metals are essential for the future, for the energy transition, for developing a low-carbon economy, and to improve people’s lives.

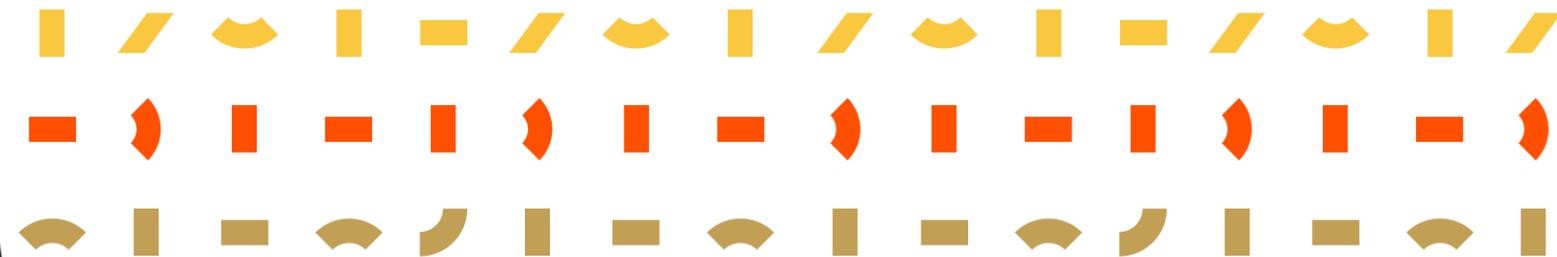
Our new purpose is aligned with our business strategy reviewed in 2021. We seek to stay abreast of local trends around the world, and to build a clear roadmap to create value in the long term. Four levers underpin these efforts:

Performance: we are focused on sustainable and consistent cash flow generation through operational excellence, cost and capital management, and maximizing revenues.

Growth: increase our exposure in copper by evaluating organic (projects pipeline) and non-organic (mergers and acquisitions) opportunities at different stages of maturity, expanding our portfolio of commodities connected with a low-carbon economy. Reinforce our market share in zinc through ongoing, targeted investments in brownfield projects, life of mine extensions, and greenfield projects.

Culture: building an increasingly agile and resilient organization. We achieve this by fostering a inspiring leadership and a diverse and dynamic environment, with employees well prepared and engaged for success.

ESG: achieving continuous improvement by strengthening our commitment to environmental, social and governance aspects and establishing clear commitments in line with industry best practices, with transparency, accountability and communication with stakeholders.



COMMITMENT TCF EC

2030*

Absolute reduction of scope 1 emissions by 20% (52 thousand tons of CO₂ equivalent), keeping Nexa's electrical energy matrix almost entirely composed of renewable sources

2040**

Reach net neutrality by 2040.

2050**

Reach net zero by 2050.

(*) The Aripuanã mine (MT) was not included in the baseline for this target. However, it is included in the reduction target.
(**) Based on SBTi 2021.

COMMITMENT

2030

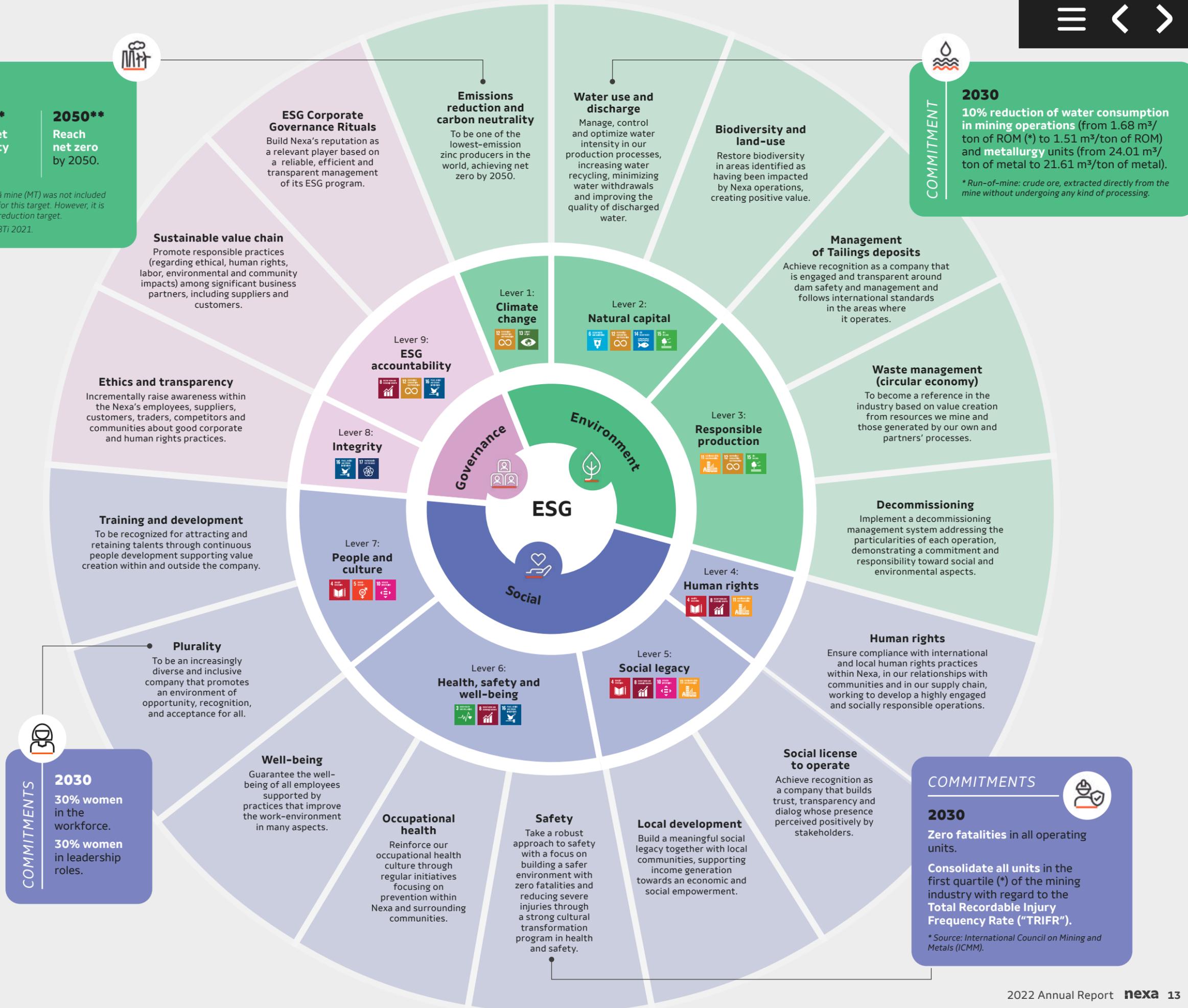
10% reduction of water consumption in mining operations (from 1.68 m³/ton of ROM (*) to 1.51 m³/ton of ROM) and **metallurgy units** (from 24.01 m³/ton of metal to 21.61 m³/ton of metal).

* Run-of-mine: crude ore, extracted directly from the mine without undergoing any kind of processing.

ESG estategy

All our strategic discussions embed sustainability, and the three ESG elements have served as a guide in all of our activities. The year 2022 was especially important in this journey.

In March, we organized an ESG Working Week, a unique opportunity for discussion and decision-making that led to the development of a plan structured around 9 levers and 17 sub-levers across the 3 ESG dimensions (environment, social and governance).



COMMITMENTS

2030

30% women in the workforce.
30% women in leadership roles.

COMMITMENTS

2030

Zero fatalities in all operating units.

Consolidate all units in the first quartile (*) of the mining industry with regard to the Total Recordable Injury Frequency Rate ("TRIFR").

* Source: International Council on Mining and Metals (ICMM).

Commitments to society

Global Compact

In 2017 we became a signatory of the United Nations (UN) Global Compact, which calls on the global business community to adopt ten fundamental principles in the areas of human rights, labor relations, the environment and anti-corruption.

Sustainable Development Goals (SDGs)

Since 2017, we have supported this global agenda of 17 goals and 169 targets for 2030, in areas such as eradicating poverty, health, education, gender equality, energy, water and sanitation, sustainable consumption and production, climate change, protecting oceans and land ecosystems, inclusive economic growth, infrastructure, and industrialization.

Carbon Disclosure Project (CDP) ODS 13.1

CDP is an international, non-profit organization that assesses and recognizes business initiatives to minimize and manage the environmental impacts from their operations. We have responded to the CDP water security questionnaire since 2019, and to the climate-change questionnaire since 2020. Our questionnaires have currently been awarded B and C ratings, respectively.

Forum on Business and LGBTI+ Rights

In 2021 we subscribed to the ten commitments of the Forum on Business and LGBTI+ Rights, a coalition of companies committed to LGBTI+ inclusion and protection and human rights advocacy. In Peru, we were already members of Pride Connection, a network of organizations that are working to foster inclusive workplace environments for the LGBTQIA+ community in the country.

Women in Mining (WIM Brazil and WIM Peru)

Nexa joined this movement in 2020 to expand the presence of women in the mining industry, fostering a dynamic business environment that can attract and retain women employees, capitalize on their strengths, and recognize their value.

WOB Check Services Label

In 2021 we received Women on Board (WOB) certification for having women in our Board of Directors. WOB is an independent initiative whose purpose is to acknowledge, value and promote corporate environments in which women are part of the board of directors or at advisory councils, to showcase the benefits of such diversity both to the corporate world and to the community in general.

Awards and recognition in 2022

Regional Water Dialogues – CEPAL/UN

A case study on our *Gente Cuidando das Águas* (“People Stewarding Water”) initiative, presented in February 2023, was the only Brazilian project to receive recognition ([learn more in the chapter ESG](#)).

Época Negócios 360º

We ranked 229th among the Top 500 companies in Brazil.

Top Companies for Communications with Journalists

We were recognized as one of the three top companies in the Mining category.

Good Practices in Mining Award, presented by the Brazilian Mining Institute (IBRAM)

We ranked 3rd in the Risk Management and Process Safety category.

Gupy Destaca – 100 RHs que Inspiram

We came within the Top 100 most inspiring RH departments in Brazil.

Melhor RH Brasil

Gustavo Cicilini, our Chief Human Resources Officer, was recognized in the Mining, Steelmaking and Metallurgy category.

National Environmental Innovation Awards

We were in the Top 3 for Innovation Management.

Proteção Brasil de SST award, from Proteção magazine

Fomos finalistas na categoria Higiene Ocupacional.

Top 100 Open Corps

We are among the Top 100 companies for open innovation in Brazil.

Valor 1000 Largest Companies

We came in 78th among the top Brazilian companies.

Valor Inovação Brasil 2022

We placed 56th among the top 150 most innovative companies in Brazil.



Performance

GRI 3-3

- ESG pillar relating to this chapter: G (governance)
- Financial capital
- Material topics addressed in this chapter: Ethics and compliance, Reputation



Our new purpose, our organizational restructuring, new ESG commitments and the ramp up at Aripuanã (MT) were among the highlights from our journey in 2022.

Net revenue was US\$ 3,034 billion in 2022, up 16% compared to 2021, driven primarily by higher LME zinc prices. Adjusted EBITDA registered a record, closing at US\$ 760 million.

Although the Covid-19 pandemic at last subsided, the year was marked by other adverse circumstances including global economic instability, the Russia-Ukraine war, commodity price volatility, and inflationary pressures. Despite the headwinds, we ended 2022 with balanced operating performance.

Looking forward to 2023, we will be strongly focused on cash generation, ensuring continued business stability and financial health.

FINANCIAL PERFORMANCE 2022

Net revenue
(in US\$ billion)



Capex
(in million US\$)



Adjusted EBITDA
(in million US\$)



Mining and processing

Our mining and processing operations were adherent with production plans, with all mines recording production growth compared to 2021 except for Cerro Lindo (Peru), where production reduced in the year.

Our mining operations suffered a significant impact related to inflationary pressures on different cost components, including energy, maintenance, personnel, and third-party services. These costs, however, were partially offset by cost control initiatives implemented throughout 2022.

Atacocha (Peru)

Our Atacocha mine is an underground and open pit polymetallic mine located in Pasco. Operations began in 1938, making it Nexa's oldest mine. In 2022, the Atacocha mine produced 9,552 tonnes of zinc, 11,204 tonnes of lead, 1.2 million ounces of silver and 13,593 ounces of gold. The mine's higher-cost underground operations have been under care and maintenance since 2020 as part of an effort to reduce costs and improve operational efficiency.

Cerro Lindo (Peru)

Located in the Ica region is the largest polymetallic underground mine in Peru and among the 40 largest zinc mines in the world. Operations began in 2007, and in 2022, it produced 84,392 tonnes of zinc, 32,758 tonnes of copper, 15,641 tonnes of lead, 4.1 million ounces of silver, and 4.1 thousand ounces of gold.

El Porvenir (Peru)

El Porvenir, located in the Pasco region, is an underground polymetallic mine. Operations began in 1949, and in 2022 it produced 51,561 tonnes of zinc, 266 tonnes of copper, 23,195 tonnes of lead, 4.2 million ounces of silver, and 9.2 thousand ounces of gold.

Aripuanã (Brazil)

Located in the state of Mato Grosso, Aripuanã is a greenfield underground polymetallic mine that began operation in July 2022. Commercial operation began in the fourth quarter of 2022, reaching 670 tonnes of zinc within market specifications as of December 31. Full-scale production is expected to begin in the second half of 2023.

Morro Agudo (Brazil)

Located in the state of Minas Gerais, Morro Agudo is an underground polymetallic mine. Operations began in 1988 and, in 2022, the mine produced 18,700 tonnes of zinc and 6.2 thousand tonnes of lead.

Vazante (Brazil)

Located in the state of Minas Gerais, is an open-pit and underground polymetallic mine, one of the 12 largest zinc mines in the world. Operations began in 1969 and, in 2022, the Vazante mine produced approximately 131,527 tonnes of zinc, 1,160 tonnes of lead, and 0.5 million ounces of silver.

The zinc operation in Vazante had its capacity reduced to 60% between January and February 2022 due to heavy rainfall in the region. Operations began to resume in March. Losses of 10,000 to 15,000 tonnes of zinc were recorded, but with the mine resuming full capacity in April, further losses were mitigated.



Total production in 2022

SASB EM-MM-000.A

MINING AND
PROCESSING



296.4
thousand tonnes
of zinc

10 millions
ounces
of silver

57.4
thousand tonnes
of lead

27.2 thousand
ounces
of gold¹

33,2
thousand
tonnes
of copper



SMELTING



566,600
tonnes
of zinc metal

40,300
tonnes
of zinc oxide

1. This figure refers to the aggregate production from Atacocha, Cerro Lindo, El Porvenir and Aripuanã, the latter producing 0.3 thousand ounces in the period.

Smelting

Zinc metal and zinc oxide sales totaled 616,000 tonnes in 2022, reflecting strong smelter performance, sustained global demand, increased exports and strong domestic demand, particularly in the tire and agribusiness industries, primarily affecting zinc oxide sales.

One of our competitive advantages is our approximately 45% vertical integration from mine to smelter. In Brazil, the zinc concentrate produced from the Vazante and Morro Agudo mines is processed into metallic products at the Três Marias smelter. The Juiz de Fora smelter processes concentrate as well as recyclable feed materials (such as scrap and electric arc furnace dust) to produce zinc. In Peru, most zinc concentrate produced from the Cerro Lindo, El Porvenir and Atacocha mines is processed at the Cajamarquilla smelter.

Três Marias (Brazil)

Our Três Marias smelter is located in the state of Minas Gerais. Operations began in 1969 and, in 2022, Três Marias produced 149.6 thousand tonnes of zinc metal and 40.3 thousand tonnes of lead.

Juiz de Fora (Brazil)

Our Juiz de Fora smelter is located in the state of Minas Gerais. Operations began in 1980, and in 2022 the plant produced 84.2 thousand tonnes of zinc metal.

Cajamarquilla (Peru)

Located in the district of Lurigancho-Chosica, in Lima, Cajamarquilla is the largest zinc smelter in Latin America and the fifth largest in the world. Operations began in 1981, and in 2022 the plant produced 332.8 thousand tonnes of zinc metal.

Commercial

Our commercial strategy of building a strong position in Latin America and a globally recognized brand has continued to prove sound and resilient in the face of market challenges.

As demand for zinc returned to pre-pandemic levels in Latin America, we were well positioned to serve our customers from our offices in Brazil, Peru and Luxembourg, and commercial representatives in the US.

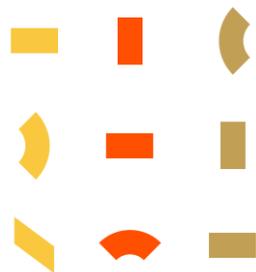
A global market with demand outstripping supply sustained London Metal Exchange (LME) prices at levels exceeding US\$ 3,400/t on average in 2022. Prices, however, were highly volatile as a result of rising inflation, higher interest rates and uncertainties regarding the reopening of the Chinese economy, in particular.

Despite the current political complexity in Peru, with demonstrations intensifying toward the end of 2022, we have continued to operate normally and to deliver good performance.

PERU		BRAZIL		
Mines				
9.7 million tonnes of processed ore		2.6 million tonnes of processed ore		
Cerro Lindo 84.4 thousand tonnes of zinc contained in concentrates	Pasco (El Porvenir and Atacocha) 61.1 thousand tonnes of zinc contained in concentrates	Vazante 131.5 thousand tonnes of zinc contained in concentrates	Morro Agudo 18.7 thousand tonnes of zinc contained in concentrates	Aripuanã* 670 tonnes of zinc contained in concentrates
50.0 thousand tonnes of lead contained in concentrates		7.4 thousand tonnes of lead contained in concentrates		
33.0 thousand tonnes of copper contained in concentrates				
Smelters				
Cajamarquilla 332.8 thousand tonnes of zinc metal		Três Marias 189.9 thousand tonnes of zinc metal + oxide	Juiz de Fora 84.2 thousand tonnes of zinc metal	
Greenfield project portfolio				
Magistral		Bonsucesso		
Projects pending resource determination				
Florida Canyon and Hilarión		—		

* Aripuanã started operation in July 2022 and is currently being ramped up.





Governance

GRI 2-9, 2-12

We seek to uphold the highest standards of governance, and have a robust governance structure that enables us to operate globally in a sustainable, ethical and transparent manner. Our policies are set by the Board of Directors and include principles on integrity, transparency, equality, accountability, and corporate responsibility, which guide our internal activities in our relationships with stakeholders. Our governance structure consists of the General Shareholders' Meeting, the Board of Directors, advisory committees, and the Executive Board.

General Shareholders' Meeting

The General Shareholders' Meeting is our highest decision-making body. It has powers to amend our Bylaws, appoint and remove members of the Board of Directors, and approve accounts, financial statements and dividends, among other matters.

Board of Directors (BoD)

The Board of Directors is responsible for directing, monitoring and ensuring business continuity by establishing and implementing corporate goals and guidelines, overseeing governance and the company's sustainability.

It supervises the activities of the Sustainability and Capital Projects Committee and provides opinions on matters related to climate change. The BoD is also responsible for monitoring the performance of the Executive Board and the business itself, and for approving strategic

plans and transactions within limits of authority established in the Bylaws.

Pursuant to our Bylaws, the Board of Directors is composed of 5 to 11 members, considering at least 3 independent, in accordance with the rules established by the stock exchanges on which we are listed. Board of Directors members serve a renewable term of two years.

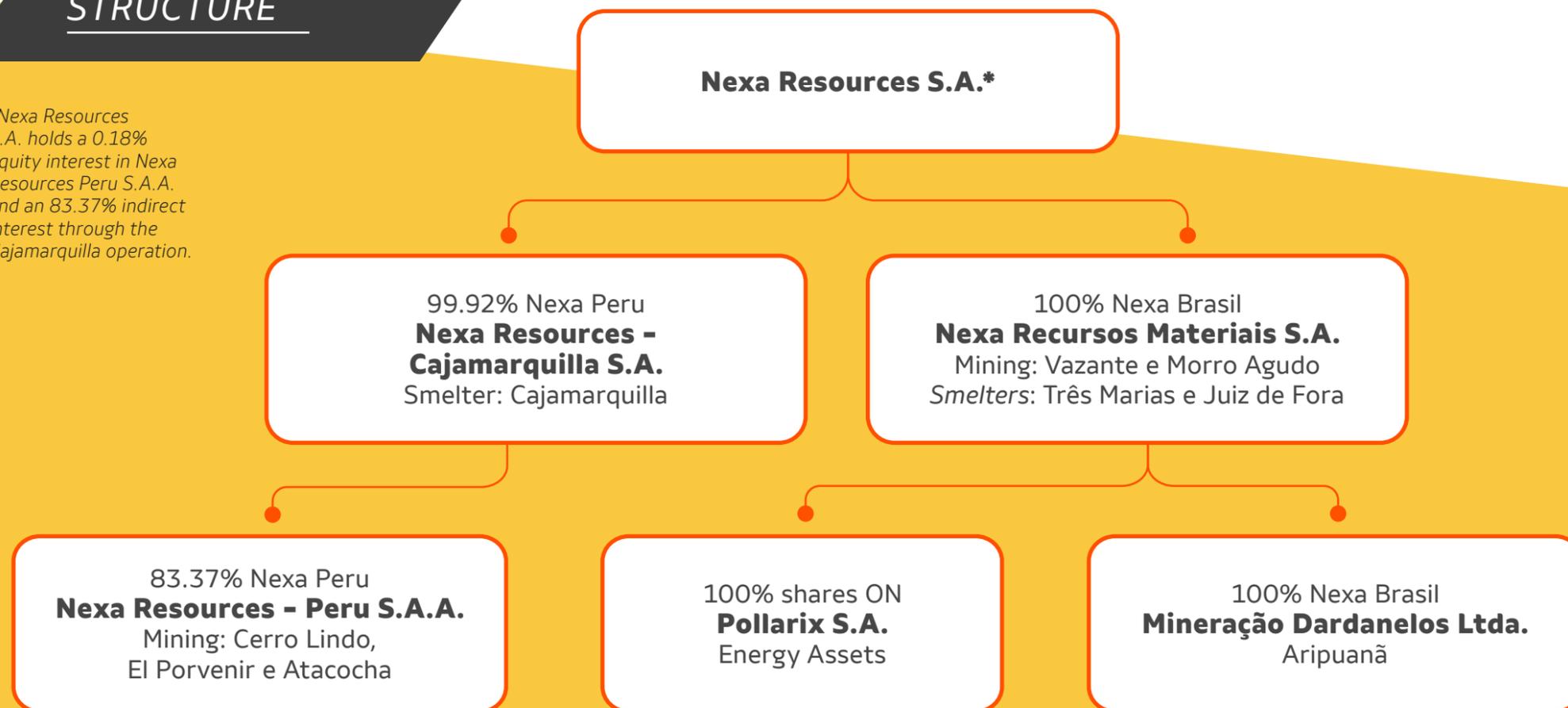
The Board of Directors currently has 9 members (2 women and 7 men) of different

nationalities, 4 of whom are independent. We seek to ensure that the diversity of our workforce also extends to our highest governance body. No member, including the Chairman of the Board, holds an executive function in the company, and all members are remunerated.

In 2022, the BoD met eight times, in addition to taking resolutions in writing on specific matters, and no major concerns were raised through grievance mechanisms. **GRI 2-16**

ORGANIZATIONAL STRUCTURE

**Nexa Resources S.A. holds a 0.18% equity interest in Nexa Resources Peru S.A.A. and an 83.37% indirect interest through the Cajamarquilla operation.*



Board of Directors

GRI 2-11

Jaime Ardila – Chairman of the Board
Member of the Compensation, Nominating and Governance Committee and the Sustainability and Capital Projects Committee

Edward Ruiz – Independent member
Member of the Audit Committee and Finance Committee

João Henrique Batista de Souza Schmidt – Member
Member of the Finance Committee

Diego Hernandez – Member
Member of the Sustainability and Capital Projects Committee

Jane Sadowsky – Independent member
Member of the Audit Committee and the Compensation, Nominating and Governance Committee

Daniella Dimitrov – Independent member
Member of the Audit Committee and Sustainability and Capital Projects Committee

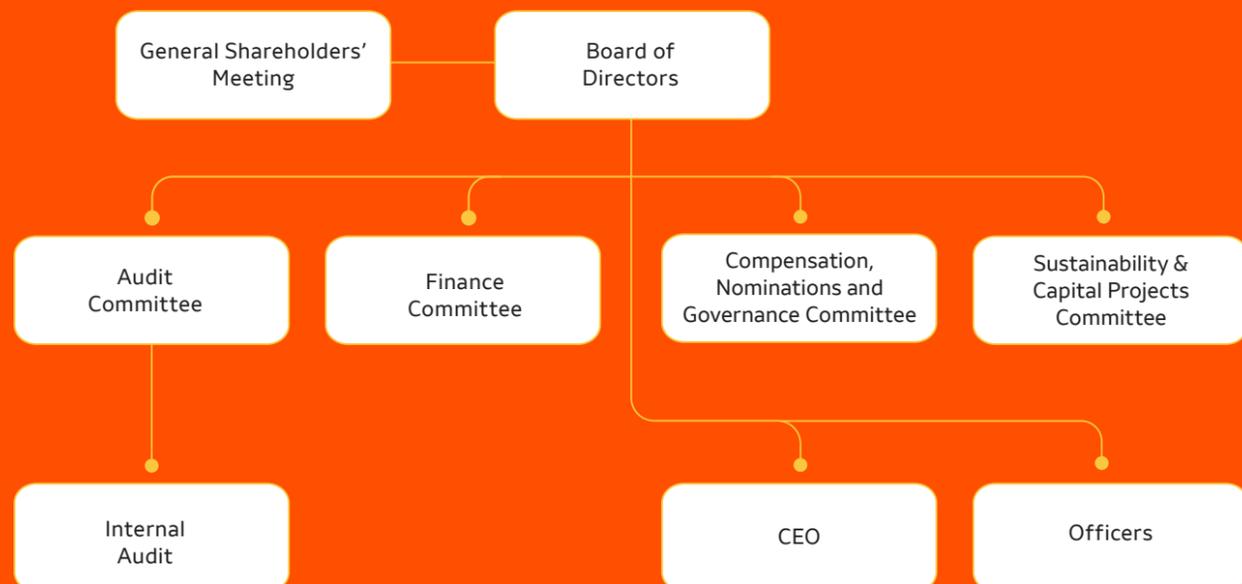
Eduardo Borges de Andrade Filho – Independent member
Member of the Compensation, Nominating and Governance Committee

Luís Ermírio de Moraes – Member
Member of the Compensation, Nominating and Governance Committee

Gianfranco Castagnola – Member
Member of the Finance Committee

Further information about the Board of Directors and members' biographies is available [here](#).

GOVERNANCE STRUCTURE



Advisory committees

Advisory committees are responsible for advising the Board of Directors in performing its duties and monitoring the performance of the company. All advisory committees are composed of members from the Board of Directors, and meet usually on a quarterly basis. Committee chairs periodically report on their activities to the Board. Each committee follows a charter establishing, among other things, roles and responsibilities and rules of procedure.

Audit Committee – composed of three independent members of the BoD. Among other duties, the Audit Committee is responsible for assisting the Board and monitoring the quality and integrity of the financial statements, the effectiveness of internal control systems and risk management, and for establishing procedures on ethics and business conduct.

Finance Committee – composed of three members of the BoD, including one independent member. Its primary duties are to assist the BoD in its oversight of the company's financial structure, and provide recommendations on the company's management strategy and capital structure, as well as approving transactions within limits of authority established in the Bylaws.

Compensation, Nominating and Governance Committee – composed of four members of the BoD, two of whom are independent. It is responsible for assessing compensation models, evaluating and recommending candidates for the position of CEO and as members of the BoD, assessing the performance of the BoD, the CEO and each of the advisory committees, and developing guidelines and corporate governance principles. **GRI 2-10, 2-18, 2-20**

Sustainability and Capital Projects Committee – composed of three members, one of whom is independent. It assists the BoD in environmental, social, and health and safety matters, including tailings management. It is also responsible for assisting in overseeing the estimation and disclosure of mineral resources and reserves related to operating assets and project portfolio. This includes monitoring technical, economic and social matters related to project development.

As in 2021, in 2022 the Committee was directly involved in building our strategic ESG plan. At least 14 meetings were held throughout the year to address a variety of topics, including climate resilience, low-carbon technology and innovation, waste management, air quality, etc. Implementation of the plan did not result in changes to the governance structure at the Board or advisory committee level. **GRI 2-13 TCFD Ga**

Executive Board

GRI 2-13, TCFD Gb

The Executive Board is composed of executives who work globally key business areas and the relationship with stakeholders. It is also responsible for developing and implementing our strategic and budget plan based on guidance received from the BoD.

Working alongside the CEO, the six vice presidents who make up the Executive Board meet periodically to follow progress on our strategic plan and discuss financial and operational matters, as well as developing tactical plans for their teams.

The Executive Board attends BoD meetings to report on material topics and discuss matters related to each executive's area of responsibility. On a monthly basis, the Board receives reports from different departments, containing environmental metrics and reports on high or critical risks that have been prioritized by the Risk Management department, including climate change-related risks.

ESG targets were set for 2022 that are linked to the bonuses paid to eligible members of the Executive Board. ESG targets currently represent 20% of annual bonuses paid to executives, and 10% of the bonuses paid to other management levels and employees.

As a result of the organizational restructuring in 2022, the number of vice president positions decreased from 8 to 6: Finance; Mineral Exploration and Business Development; Mining; Technical Services and Projects; Commercial and Smelting; Human Resources and Corporate Affairs.

Leonardo Nunes Coelho
Senior Vice President of Mining Operations

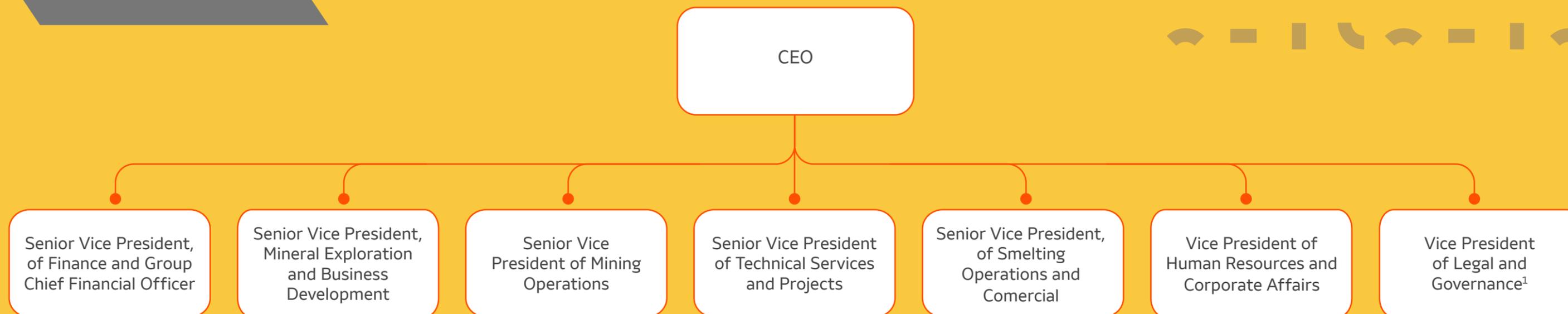
Marcio Godoy
Senior Vice President of Technical Services and Projects

Mauro Boletta
Senior Vice President of Smelting Operations and Commercial

Gustavo Cicilini
Vice President of Human Resources and Corporate Affairs

Renata Penna
Vice President of Legal and Governance

EXECUTIVE BOARD



1. In April 2023, Renata Penna has become our Vice President of Legal and Governance.

Ethics and compliance

GRI 3-3

Our Compliance Program is designed to ensure we uphold high standards of ethics and integrity. It is periodically reviewed and provides guidance on the conduct expected of all employees and contractors.

The Board of Directors and the Audit Committee are primarily responsible for advocating and enforcing the program, and taking disciplinary action to address any violations.

In 2022, the focus of the program was on identifying corruption, fraud and money laundering risks. An assessment of compliance risks focused on the sales, sponsorship, and brownfield licensing processes.

There were no identified instances in which Nexa or its employees became parties to judicial investigations and/or prosecution for any involvement in corruption. There were also no legal actions for anti-competitive behavior, anti-trust, or monopoly practices.

GRI 205-3, 206-1

Training and communication

Training – in 2022 we continued to provide training on Ethics & Transparency, and to disseminate our Code of Conduct through e-learning courses attended by employees at all levels of the organization, with attendance confirmed via electronic signatures. In 2022, we informed 5,940 (100%) of our staff about the Anti-corruption Policy. We trained 4,335 (73%) in this policy, of which 3,084 (82%) in Brazil, 1,233 (58%) in Peru and 18 (100%) in the United States and Luxembourg. **GRI 205-2**

We also reviewed the Sexual-Harassment Committee in Peru and implemented a similar committee in Brazil. Visits were made to each of our operations to select and train people to serve on the committees, forming a network of compliance influencers, helping to embed these topics in our day-to-day activities. In 2022 we provided the first training on our Supplier Code of Conduct, the final draft of which was completed last year, followed by an online training on waves starting this year.

Compliance Chatbot – a supporting tool launched in 2021 to answer questions about our compliance-related policies and standards (our Code of Conduct and Compliance; Anti-Corruption; Donations; Government Relations; Conflict of Interests; and Sponsorship policies), enabling team interactions with other areas of the company.

Compliance Portal – another compliance communication channel launched in 2021. Here, employees can use online forms to document and seek approval of transactions such as donations, sponsorship, gifts and hospitality, conflicts of interest and dealings with government officials. Where an employee declares a conflict of interest, an assessment is carried out by the compliance department. If the conflict of interests is confirmed to exist, mitigation measures are agreed with the employee's manager and the DHO department. We have identified approximately 700 conflicts of interest, most of which have been assessed and dealt with. Business partners can also use the portal to attend training on our Supplier Code of Conduct.



Ethics Hotline

GRI 2-25, 2-26

The Ethics Hotline consist of an impartial and transparent channel prepared to receive from internal and external sources reports on potential violations of our Code of Conduct and any other policy, procedure, law or regulation, including reports on financial crimes, fraud, corruption, discrimination, harassment, and other ethical violations.

The Hotline ensures information is kept confidential and the identities of whistleblowers are kept anonymous, working to foster a wholesome workplace environment for all employees.

The hotline is managed by a specialized independent firm, which screens incoming reports to ensure there are no conflicts of interest in addressing concerns. Incoming reports are reviewed to gain an understanding of the case, and the parties involved are interviewed. This is followed by a detailed investigation to determine whether the report is substantiated, resulting in either disciplinary action or guidance, as applicable.

The entire process is overseen by the Conduct and Audit committees, who advise the Board of Directors, and company's leaders, supported by the Internal Audit and the Legal departments. **GRI 2-15**

The Ethics Hotline is available in Portuguese, English and Spanish, and can be accessed either online or by telephone:

- Brazil:** 0800-892-0741 (Portuguese)
- Peru:** 0800-50-000 and 0800-50-288 (Spanish)
- United States:** 1-855-888-9926 (English)
- Canada:** 1-855-888-9926 e 1-855-350-9393
- Luxembourg:** 800-201-11 (English and French)

Guidance on the use and operation of the Ethics Hotline is widely communicated to employees and third parties. In 2022 the Hotline received 130 reports on discrimination, with 62 deemed non-substantiated, 54 deemed substantiated (and addressed with disciplinary action as established in applicable company standards), and 14 still pending investigation at year-end. **GRI 406-1**

In 2023 we plan to migrate the Ethics Hotline to a more modern platform offering Brazilian Sign Language (LIBRAS), clearer definitions of violations, and more user-friendly navigation.



Code of Conduct

GRI 2-23, 2-24, SASB EM-MM-510a.1

Consist of one of the pillars of our Compliance Program. It is based on the Votorantim Group's core values, and guides employee behavior and interaction with stakeholders. The Code was updated in 2021 along with other policies and was made available to all employees along with an online training on our [Code of Conduct](#) and [Anti-Corruption Policy](#). Electronic signatures provide greater assurance, and a printed version is available for employees with no online access.

The updated Code of Conduct addresses matters such as diversity and environmental, social and governance (ESG) practices, as well as provisions for compliance with new laws, such as the Brazilian General Data Protection Regulation (BR GDPR). A [Supplier Code of Conduct](#) has also been introduced to formalize the conduct Nexa expects from suppliers when dealing with the company.

The code is publicly available to all stakeholders, including employees, suppliers, customers, communities, NGOs, government agencies, shareholders and other individuals and organizations we interact with, ensuring we successfully achieve excellence in all our practices.

[Click here to read our key policies.](#)

GRI 2-23

- [Code of Conduct](#)
- [Compliance Policy](#)
- [Antitrust Policy](#)
- [Anti-corruption Policy](#)
- [Policy on Preventing Money Laundering and Terrorist Financing](#)
- [Disclosures Policy](#)
- [Insider Trading Policy](#)
- [Integrated Management Policy](#)
- [Information Security Policy](#)



Human rights

SASB EM-MM-210a.3

Human rights is a priority for us and is a key element to embed our strategic management.

In 2017 we became a signatory of the United Nations (UN) Global Compact, which calls on the global business community to adopt ten fundamental principles in the areas of human rights, labor relations, the environment and anti-corruption.

With this and the engagement of our employees in mind, we developed 10 to 15 minute e-learning training videos about conflicts of interest, donations, government relations, our Ethics Hotline, and preventing money laundering and terrorist financing.

GRI 2-15

In 2022 we reviewed our procedures on sexual harassment² for Peru, adapting them to Brazilian legislation and circumstances. And as in Peru, we implemented sexual harassment committees in all of our Brazilian operations.

All our operations are in areas with no conflicts documented within the Uppsala Conflict Data Program (UCDP) and Organization for Economic Co-operation and Development (OECD). In 2022 we continued to actively pursue our efforts to monitor, settle and mitigate conflicts related to land use in Aripuanã. **GRI MM6**

Pursuant to best practices and our responsibility to communities, we conduct due diligence and follow a set of Social Golden Rules². The due diligence assessments aim to identify and collect information early in our commercial relationship, allowing us to assess and classify integrity risks.

We also seek the free, prior and informed consent from native communities in the locations where we operate in accordance with international conventions (OIT 169) and each country's legislation.

2. Among the requirements in our Social Golden Rules is a no-tolerance stance on sexual abuse or exploitation of children and adolescents; violence against women or domestic violence; the use or exploitation of child labor; and slave or forced labor. The Social Golden Rules include a Community Engagement Procedure providing guidance on interactions with communities to ensure they are respectful; they also prohibit any discrimination on the basis of race, religion, belief system, sexual orientation, or other aspects.

Risk management

GRI 2-25, TCFD Gb GRa, GRb, MMa, MMc



Our approach to risk management addresses four major classes of risk: strategic, financial, operational, and regulatory. Our risk matrix is periodically reviewed so it is kept up to date and consistent with our strategic plan. At any time, emerging risks and risk factors may be identified and assessed, and actions to address and monitor those risks are established in response.



We follow an Enterprise Risk Management (ERM) Policy that is periodically reviewed, most recently in 2022. It addresses the primary risks to which our corporate departments and operations are exposed, and also applies to subsidiaries and affiliates. Risk assessments are carried out online using BWISE, a platform implemented in 2020, and can be updated any time, making the risk assessment and monitoring process more efficient.

One of the system's advantages is that it tracks changes and allows current assessments to be compared against previous ones. All risks are monitored directly by the responsible departments and the "risk owner", person in charge for leading management of a specific risk. For risks rated as critical or high, action plans are required with deadlines. The BWISE platform provides expiration alerts to facilitate risk monitoring and ensure action plans are completed on a timely basis.

A Risk Governance Improvement project, deriving from the Risk Culture project carried out in 2020, was implemented throughout 2021 with support from independent consultants. The goal of the project is to foster discussion about risk management within our governance bodies, and to improve workflows to ensure the Risk Management team is involved as necessary. The Board of Directors, which monitors prioritized risks, was involved in discussions on the project in 2021, including a redesign of our risk appetite model. This project was implemented in 2022 and continued into 2023.

We carried out our first climate risk assessment in 2021, working with the Corporate Governance, Risk Management and Compliance teams, taking into account the specific impacts on the business and the level of exposure to risk. Risks were rated based on the magnitude and likelihood of impacts, across financial, environmental, social, health and safety, and legal aspects.

Information is intersected to rate risk severity as either very low, low, medium, high or critical. The risk assessment methodology is based on ISO 31000 Risk Management 2018 and COSO ERM (Enterprise Risk Management) 2017. An ERM tool is used to assess risks and opportunities related to legal, technology, market and reputation aspects, extreme weather events including heavy rainfall, sudden changes in weather patterns, more severe cyclones and flooding, and rising average temperatures and sea levels, taking account of the particular conditions of the geographies where our operations are located.

Accurate risk assessment and measurement provides greater assurance in decisions on which risks can be accepted, increasing potential gains.

Investor relations

In 2022 we were ranked second in Institutional Investor Latin America, a survey that recognizes a wide range of initiatives, including investor relations programs. This recognition reflects our efforts to build close and transparent relations with the capital market. We provide up-to-date information on our investor relations [web portal](#) and seek to provide information that is relevant to this audience, such as quarterly financial information.

Nexa Day

In the second half of 2022, we hosted analysts and investors at the New York Stock Exchange (NYSE) for our first Nexa Day, marking the fifth anniversary of our IPO.

We presented our strategic guidance to create long-term value, our purpose, and our ESG strategy. The event also provided an opportunity to discuss our newly operational mine in Brazil, Aripuanã (MT), and announce our environmental and climate change commitments.





Growth

GRI 3-3



- *ESG pillar relating to this chapter: G (governance)*
- *Manufactured capital*
- *Material topics addressed in this chapter: Operational excellence, Reputation*

Supporting our growth strategy, we continued efforts to replenish and increase available mineral reserves and resources as part of our long-term strategy, advancing our mineral exploration and business diversification programs, including mergers and acquisitions. Our primary focus is on identifying new ore bodies improving our resources-base through key drilling programs.

Throughout 2022, we invested US\$ 44 million in brownfield, greenfield and supporting projects, including maintaining mineral exploration rights. In 2022 we drilled more than 116,000 meters across greenfield and brownfield projects, including infill drilling at Aripuanã. We invested an additional US\$ 5.1 million in our Ambrex infill drilling program to define resources and increase reserves.

We seek to identify projects that can fill current gaps in our organic pipeline, especially more advanced projects already at the feasibility stage and closer to entering production. We also seek opportunities for inorganic growth, such as acquiring mines that are operating. Throughout 2022, we invested US\$ 1 million in multidisciplinary technical visits and data analysis of operational projects and mines.

We have continued to advance regional exploration programs to generate new early-stage, high-quality copper and zinc projects with the potential to meet strategic demand to replenish or add new mineral resources in the long term. In the short and medium-term, we have continued to allocate a significant part of our budget to extending the life of existing operations.



Mineral exploration

Greenfield projects are projects seeking new regional targets to identify prospective areas and define materiality for new projects, contributing to our long-term growth strategy.

Hilarión – located in the Ancash region (Peru), it is made up of vertical tabular ore bodies containing sulfide zinc and lead, as well as silver and copper deposits in lesser quantity. In 2022, a new drilling program was commenced with the objective of finding new mineralized zones parallel to the known ore body, referred to as Hilarión West.

Florida Canyon – located in the Peruvian Amazon region, Florida Canyon is a polymetallic zinc and lead project with silver credits. The project is currently at the mineral exploration stage and is being developed as a joint venture between Nexa Peru and Solitario Zinc Corp. Mineral exploration work in 2022 included reviewing geological data, mapping upsides near mineralized ore bodies already known and, especially, access road maintenance and construction and geo-metallurgical testing.

Namibia – located in the country’s Central North region, this copper project is at an initial stage and is being developed as part of a joint venture with Japan Oil, Gas and Metal National Corporation. In 2022, a new diamond drilling program was conducted to identify new mineralized zones in priority targets between the Otavi and North Namibia projects.

Magistral – located in the Ancash region of Peru, this project is an open pit copper mine with molybdenum concentrate as a by-product. The project is currently at the feasibility assessment stage.

Other projects – our mineral exploration programs conduct early geological research to develop and expand our portfolio, both in Brazil and Peru. The objective is to identify surface evidence of prospective zones of interest and define mineralized zones with regional exploratory drilling programs.

INVESTMENTS IN
2022

US\$ 44 million
mineral exploration and
Aripuanã infill drilling

US\$ 5 million
mining rights

US\$ 15 million
mine development

US\$ 64 million
other operating expenses

DRILLING
PROGRAM

16,260 meters
Greenfield

100,470 meters
Brownfield

116,730 meters
mineral exploration



Brownfield projects are projects adjacent to mines we already operate to extend their life.

Cerro Lindo (Peru) – In 2022 we conducted studies of geological information collected in previous drilling programs, and geophysical and geochemical surveys to support the new drilling program during the year. Drilling activities were also resumed in January 2022, with a focus on extending known ore bodies toward the south end of the mine, and on exploratory drilling to find new mineralized zones north of the deposit.

Vazante (Brazil) – In 2022, work was focused on extending the Far North target, in the Vazante trend after diamond drilling confirmed the continuity of the mineralized system, creating new opportunities for mineral exploration to further depths.

Pasco Complex (Peru) – The Pasco mining complex comprises our Atacocha and El Porvenir mines, in Peru. 2022 saw excellent results with the expansion of a new mineralized zone in the integration area, with the potential to extend existing mineral resources. In El Porvenir, drilling work has been directed at extending existing mineralized bodies along the strike and at depth in the integration zone, and drilling at the Carmen Norte and Porvenir Sur targets.

Morro Agudo Complex (Brazil) – The Bonsucesso project to extend mine life is currently in the feasibility stage. Continued diamond drilling throughout 2022 was aimed at infilling areas where no data is currently available, investigating known mineralization extensions, and seeking regional continuity. Project feasibility is currently being assessed and a decision on how to proceed with the project will be made during the course of 2023.

Aripuanã (Brazil) – This brownfield project along the Aripuanã trend worked toward two primary objectives in 2022: increasing mineral resources at the Ambrex ore body and assessing opportunities for extensions, especially along the northwest continuity of the Babaçu ore body. The drilling strategy at Babaçu had excellent results, expanding the ore bodies with a good fit to previous models. The infill drilling program at Ambrex, with over 30,000 meters drilled, found a considerable increase in resources and reserves, extending the life of the mine by 3 years.



RECOURSES & RESERVES¹

Class	Total (million t)	Zinc (%)	Copper (%)	Silver (g/t)	Lead (%)	Gold (g/t)	Molybdenum (%)	Zinc ('000 t)	Copper ('000 t)	Silver ('000 oz)	Lead ('000 t)	Gold ('000 oz)	Molybdenum (%)
Reserves²													
Proven	44.17	3.42	0.45	24.8	0.46	0.05	-	1,510.2	199.3	35,187	203.9	64.0	-
Probable	56.38	3.60	0.22	36.0	0.83	0.09	-	2,030.4	126.1	65,339	466.3	156.0	-
Total	100.55	3.52	0.32	31.1	0.67	0.07	-	3,540.6	325.4	100,526	670.2	220.0	-
Resource³													
Measured	126.75	0.71	0.43	9.8	0.16	0.01	0.04	903.6	548.9	39,749	206.7	30.7	49.3
Indicated	163.00	1.55	0.26	12.7	0.29	0.01	0.02	2,528.4	416.6	66,468	472.2	67.4	36.3
Total	289.75	1.18	0.33	11.4	0.23	0.01	0.03	3,432.0	965.5	106,217	978.9	98.1	86.6
Unproven	156.91	4.22	0.13	28.5	0.70	0.12	0.00	6,625.8	198.44	143,598	1,096.7	549.8	5.5

Note: NB: The estimation of Mineral Resources and Reserves involves assumptions about future commodity prices and technical mining matters. The Resource and Reserve statement follows the CIM 2014 Definition Standards (Definition Standards for Mineral Resources and Mineral Reserves) and is consistent with the definitions of Mineral Resources and Mineral Reserves described in Regulation SK, Subpart 229.1300.

¹ The total amounts and content presented in this table have not been adjusted to reflect our ownership interest. The information presented in this table includes 100% of the estimates of Reserves and Mineral Resources of our consolidated subsidiaries and our joint ventures, calculated based on the CIM 2014 definition standards and consistent with the definitions of Mineral Resources and Mineral Reserves

described in the Subpart 229.1300 of Regulation S-K, some of which are not wholly owned, as set out in the ownership column available in the 6-k Mining Report or in the Nexa 20-F Annual Report, available at <https://ir.nexaresources.com/regulatoryfilings>.

² Mineral Reserves include the following properties: Cerro Lindo, El Porvenir, Vazante and Aripuanã.

³ Mineral Resources include the following mines: Cerro Lindo, El Porvenir, Atacocha Underground, Atacocha Open Pit, Vazante, Aripuanã, and Morro Agudo; and the following projects: Aripuanã, Bonsucesso, Magistral and Florida Canyon

In our operations, located in Brazil and Peru, we do not have resources and reserves proven or located in indigenous lands or protected conservation areas. **SASB EM-MM-160a.3**

In Peru, particularly in the city of Pasco, there are no references to indigenous/original peoples' zones, since the production of the unit precedes the creation of Law No. 29,785, of 2011, which demarcated the region as an indigenous peoples' zone.

SASB EM-MM-210a.2



Aripuanã

In 2022 we started production from the Aripuanã polymetallic mine, the largest mining project in the state of Mato Grosso. Aripuanã consists of 3 main mineralized zones, with an estimated annual average production of 70 thousand tonnes of zinc, 24 thousand tonnes of lead, 4 thousand tonnes of copper, 1,8 million once of silver and 14,5 thousand ounces of gold over the 11-year life of the mine, including only those mineral reserves that have been estimated in accordance with S-K 1300.

Aripuanã will further strengthen our unique position to meet growing demand for zinc. Current activities at the mine are focused on expanding steady-state production. The 600,000 tonnes of

ore stockpiled at year-end 2022 are sufficient to cover the estimated 4-month ramp-up period.

With a focus on steadily increasing the plant throughput rate, building process knowledge, improving concentrate grades and increasing asset reliability, commercial production commenced in November 2022. We expect to reach full capacity in the second half of 2023.

The mine is currently fully operational, and underground activities are focused on developing and preparing areas for mining operations, while increasing mineral reserves with drilling in new areas, seeking operational stability during the entire operation.



ESG in focus

The project has incorporated state-of-the-art technology and operational excellence, and sustainability across the production chain, establishing itself as a benchmark for ESG.

Aripuanã uses the dry stacking method for tailings disposal, avoiding the use of tailings dams. The project has high water reuse efficiency, and a robust workforce diversity program.

The project has continued to operate as an agent of local social and economic development. At year-end 2022, Aripuanã had 586 direct employees working in the mine, plant, maintenance, process, environment, health and safety and administrative roles.

We have continued to run a training program for future mine operators, hiring 142 people in 2022, including 34% women, in areas such as geology, electrical and mechanical maintenance, mine operation, and processing.

Training and then hiring women for the operation has made Aripuanã a benchmark for diversity in the mining industry. The mine has 27% women in its workforce, generating a change of culture and positive social impact in the region.

Through a participatory social agenda, a Local Development Plan (LDP) has been developed with the involvement of dozens of community members, prioritizing education and economic development as key areas for social investment over the coming years.

Social investments have been earmarked for important areas such as logistics, sanitation and healthcare. More than US\$ 9.7 million has been invested in social and infrastructure initiatives for the municipality, including more than US\$ 5.8 million on a voluntary basis.

Bridge and road construction and renovations at the municipal airport, three health clinics and the Military Police headquarters are among these investments, in addition to improvements to a sewage treatment plant and broader sanitation and water supply systems. In 2022, we also donated US\$ 968 thousand toward improvements at the community hospital in 2023.

In 2020 we signed a Commitment with the Aripuanã Small Scale Mining Cooperative (COOPEMIGA), with the participation of the National Mining Agency (ANM) and the state government of Mato Grosso, authorizing the cooperative to establish small-scale mining operations in a delimited area. Learn more about Aripuanã [here](#).



ESG principles from day one

ENVIRONMENTAL

- Dry tailings disposal
- Energy efficiency
- Backfilling (using waste materials to fill voids left by mining)
- Wetland systems for biological effluent treatment

SOCIAL

- A Local Development Plan (LDP) developed with the community
- 27% women in the workforce
- Local worker training program
- Voluntary investments in infrastructure, education, healthcare, transportation, public security, water and sanitation

Business diversification

Our M&A (Mergers and Acquisitions) department continuously seeks out potential opportunities in the market, aligned with our growth strategy. Throughout 2022, several assets (projects and operations) were assessed and some are currently being evaluated.

We increased our interest in Tinka Resources from 9% to 18.2% and acquired an area that was part of the bankruptcy estate of the Minas Gerais Development Bank (BDMG), in Vazante, which has the potential to extend the life of our operation in the region by at least 2 years.

ARIPUANÃ

Location: Aripuanã (northwest of Mato Grosso, 1200km away from Cuiabá);

Size: Total area of **213 hectares** (equivalente to 12 Maracanã stadiums);

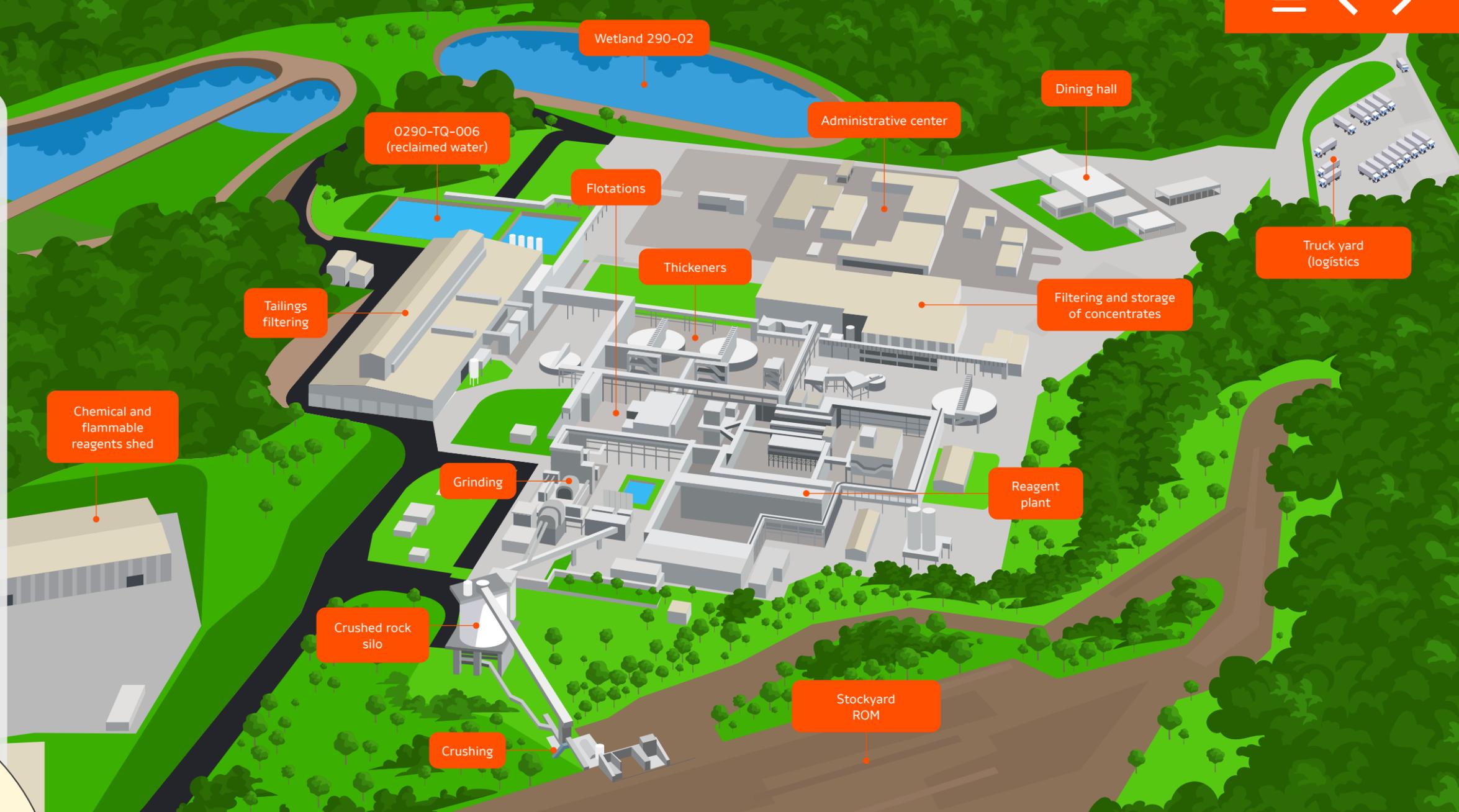
Service life: **11 years**, considering only the mineral and reserves estimated so far;

Mining type: **Underground.** The ores are extracted from 3 underground mines, with less impact on the environment;

Investment: **US\$ 632 million;**

Jobs: **More than 3 thousand jobs** in the construction phase;

In the operation: **1500** outsourced collaborators and **586** own employees.



PRODUCTION ESTIMATES:

tons/year

ZINC: **70 thousand**

LEAD: **24 thousand**

COPPER: **4 thousand**



SOCIAL INVESTMENT

More than **US\$9.7 million** in social investment

More than **1400** participants in the Professional Qualification Program

52% of the workforce is made up of Aripuanã residents

26.8% of the operation is composed of women

Culture

- *ESG pillar relating to this chapter: S (social)*
- *Human and intellectual capital*
- *Material topics addressed in this chapter: Safety, health and well-being, Plurality, Innovation, Reputation*

Nexa has been working on implementing and strengthening its culture since 2018, supporting our strategy and helping us prepare for future challenges on an ever-changing world.

The year 2022 was key to set the direction of these changes, in line with our business strategy along with the four strategic pillars: performance, growth, culture, and ESG.

The Nexa way

Our culture will continue to evolve and support our entire business strategy as we move forward. During the Leadership Meeting last October we launched all Nexa drivers to simplify and focus our behavior on the following drivers:

- **Independence with responsibility:** we do what we promise and are responsible for our results. We strive to deliver the best quality, cost, and deadlines, ensuring safety, excellence, and discipline.
- **Agile performance:** we are able to quickly adapt and focus on the new demands of our industry and society. We collaboratively seek simple and efficient solutions for the challenges we face (1 + 1 > 2).
- **Op:** we are always open to listen to different opinions and new ideas to do things differently. We learn together, confidently, and transparently sharing our mistakes and best practices.

Nexa professionals

At the end of 2022 we had 5,624 direct employees, 3,509 in Brazil, 2,095 in Peru, and 20 in other countries. We also had 8,596 permanent contractors providing services

In 2022 we hired 853 new employees. Also in 2022, women made up 16.5% of our workforce, and 13.2% of it was over the age of 50. Our headcount for the year, excluding interns and apprentices, was 3.7% below 2021.

GRI 401-1, 405-1, ODS 5.5, 8.5

Union negotiations

We have a master union plan that governs our relationships with the unions. This document includes internal indicators that enable us to proactively work on this relationship, avoiding conflicts and strikes. GRI 407-1

In 2022 there were no strikes by any of the employees or contractors working in the Brazil units. There was one incident in Peru (Cajamarquilla), which was quickly contained and did not impact our output. We have reached fair agreements for employees and companies, and there were no stops or delays for non-technical reasons. We continue working with governments and industry associations, seeking to reinforce the company's situation regarding the challenges and demands that might impact operations.

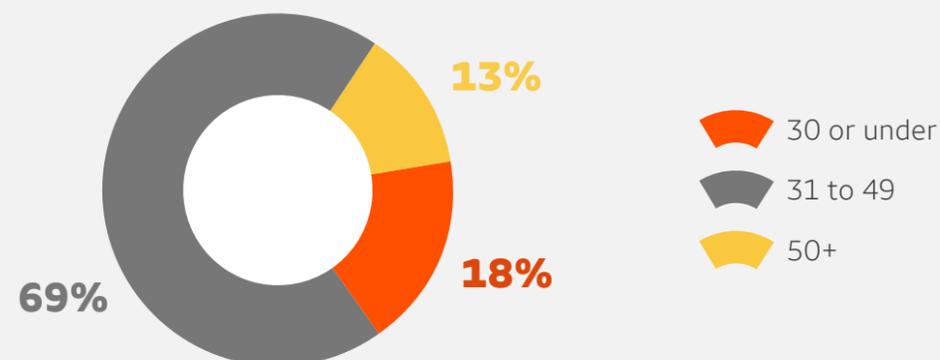
SASB EM-MM-210b.1, 210b.2, 310a.2

TOTAL WORKFORCE

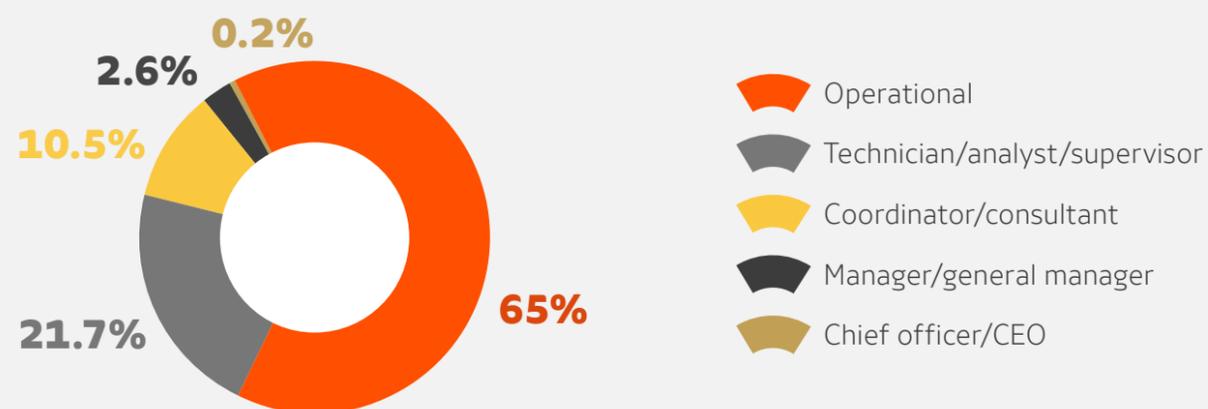
GRI 2-7, 2-8, SASB EM-MM-000.B

Year	Company employees	Fixed contractors	Temporary contractors
2020	5,349	7,136	5,088
2021	5,840	7,662	7,624
2022	5,624	8,596	6,081

EMPLOYEES BY AGE GROUP



WORKFORCE BY EMPLOYEE CATEGORY



Plurality

GRI 3-3

We are engaged in being an increasingly diverse company, promoting an environment of opportunities and recognition that is welcoming for all. We believe that mining could and should be a more diversified environment, where the path towards a more diverse organizational culture includes investing in a plurality of ideas, origins, races, ethnic origins, genders, orientations, and generations, also including people with disabilities, promoting a workplace that enhances employee satisfaction.

We use three basic motivators for this:

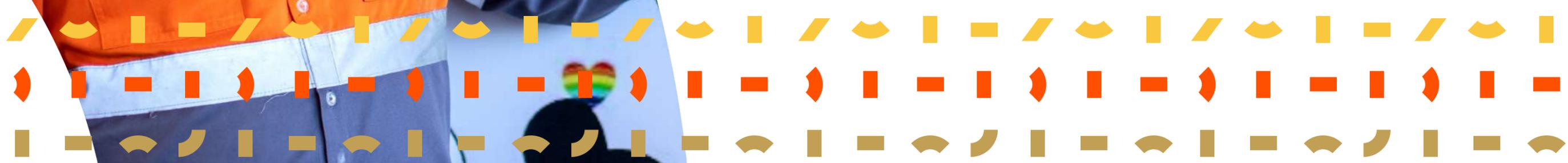
- **For individuals:** we believe an inclusive and emotionally safe environment encourages a sense of belonging as well as creativity and innovation.
- **For the company:** we believe that being plural is a strategic pillar that expands the potential of our teams and multiplies our business results.
- **For society:** we believe that our practices and results help society become increasingly ethical, human, and equitable.

Nexa's score on a Plurality Census we ran to map employee representation and perception of this topic showed the company is at a good level of maturity. A total of 4,445 employees, or more than 71% of the workforce, answered the survey, and 84% scored us favorably on this theme.

We created a Best Practice Guide with modules for online training to help teams better understand topics related to plurality and inclusion, strengthening a culture of ethics and respect within and outside the company.

Connected to our ESG goals and commitments, in 2022 we had our first Plurality Week, with a full program of activities and debates on the theme to make others aware and share knowledge. Numerous leaders and directors participated.

Also in 2022, we organized our Plural Chain, an initiative that seeks to recognize the efforts of Nexa suppliers. One of the categories is a Plural Company, which recognizes suppliers that promote diversity and inclusion. Learn more about this in the [ESG chapter](#) of this report.



DIVERSITY INDICATORS

Women
16.5%
(industry: 6% in Peru and 15% in Brazil)

PwDs
4.6%

LGBTQIA+
5%,
according to the internal census

Employees over 50
13.2%

Black
51%
in Brazil and
3%
in Peru

Indigenous
1%
in Brazil and
1%
in Peru



Affinity groups and **key initiatives**

Empower (women)

- Nery Monteza, Empodera group leader, dedicated to promoting gender equity at Nexa Resources, was selected to be part of the fifth edition of the book “100 Global Inspirational Women in Mining” published by Women in Mining (WIM) UK. The publication presents inspirational stories of women who have excelled through their actions to promote a safer, more sustainable and inclusive environment in the mining sector.
- Breaking Taboos - An initiative that promotes discussions of taboos and barriers that are not always visible, addressing unconscious biases. In 2022, all units promoted this type of meeting on celebratory dates such as Women’s Day, Plurality Week, and Mother’s Day.
- Nexa was the first mining company in Brazil to sign the “Women in Mining” commitment letter.
- Women on Board (WOB) certification for having women in our Board of Directors.
- Maternity leave in Peru was extended from 98 to 180 days.
- Nexa Mothers Conversation Groups, where women can discuss, share, and break barriers in topics related to motherhood.
- Aripuanã is one of the only mines in the world where 27% of the workforce is female, 19 p.p. above the global average.
- In 2022, Nexa signed a partnership with the Artemis Project, to collaborate with other members to increase diversity on its supply chain.

- Together with WIM Peru, we created KURAK ÑAÑYKI program to share more knowledge and bring women from the communities closer to STEM (science, technology and engineering) careers, so they can be able to choose the career paths they want to pursue.

Acessa (Access – PwDs)

- Plural Talents Program, focusing on people with disabilities.
- Accessibility works at the units in Brazil, and analysis of the situation in Peru.
- Conversation rounds with leaders in Brazil and Peru to make them aware, secure engagement, and update them regarding Acessa initiatives.
- Training the medical team on people with disabilities, classification, biases, and how to address this public.

Skin tones (race and ethnicity)

- Member of the Women’s Group Brazil - Career Accelerator, which promotes training and development of Afro-descendant women for the corporate environment.
- Training ambassadors (facilitators) for the units.

Connection (multi-generation)

- Initiatives on the longevity, culture, career, and cooperation fronts.
- My story: conversations to make people aware and engaged around age and career bias at Nexa.

Pride (LGBTQIA+)

- Subscribed to the LGBTQIA+ (Brazil) and Pride Connection (Peru) Company and Rights Forums.

Plural Talents Program

This program is exclusively for people with disabilities who have a degree or about to get a degree in any area of knowledge. The first year of the program (2021) had over 600 applications, from which 16 talents were selected for a position in diverse areas of the company. This is an 18-month program, and selected candidates have different experiences, developing a vision of the business and acquiring new knowledge in the areas they work in, in addition to technical and behavioral competences. The focus for the program in 2022 was development and retention. We continue to monitor participants, creating moments of discussion around performance to answer questions and assess internal opportunities.

Valuing Nexa professionals

To attract and retain talents, we invested in new ways of working that are more flexible, dynamic, and fluid, with different types of interactions and collaboration. One of the tools used is the digital transformation of our Human and Organizational Development (HOD) area. Artificial intelligence, such as our chatbot Nina, is already in use at Nexa, as are smart business intelligence (BI) dashboards that provide more complete and integrated data upon which to support our initiatives.

Hybrid working model

Our hybrid working model is the result of learnings acquired during the period of social isolation imposed by the Covid-19 pandemic in 2020 and 2021. Seeking to balance and strengthen our culture, in 2022 we implemented a hybrid working model that gives our employees more flexibility. This model allows employees to work remotely 3 days a week, coming to the office for the other 2. Employees also have the option to work in-person only, especially those in operational positions. To support the model, we help managers lead their teams in this new format, providing training, hints, and tools.

One HR

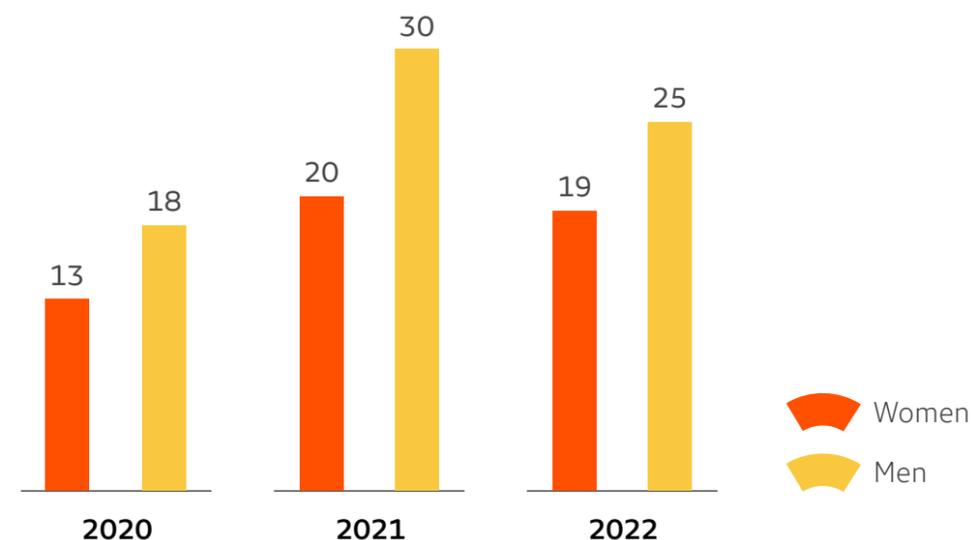
One HR is the efficient people management model we adopted in 2021. This model helps provide an overall view of the teams, with a unique selection and recruiting experience, sharing an integrated database and in-sourcing the program. In 2022, we consolidated the use of the employee self-service portal, and completely implemented the One HR model.

Career development

We developed the technical, behavioral, and management competences of our employees, encouraging them to become protagonists and training transformation agents.

In 2022, approximately 142,000 hours of employee training and qualification were offered, an average of 25 hours per male employee and 19 hours per female employee. **GRI 404-1**

AVERAGE TRAINING HOURS BY GENDER





2022 IN NUMBERS

6,426

active employees were trained on Conexa's platform

199

active employees attended GMIRM

275 million

of zincoins¹ were shared on Reconhecer (Recognize) platform

1. Nexa's internal currency.



Conexa – is the company's Learning Management System (LMS), created in 2021. It is a learning platform that offers training in a range of formats such as games, films, interactive sessions, TEDs, and content developed together with universities in Brazil and abroad. In 2022 this tool provided 141,822.62 hours of training, with 99,527 connections. This is equivalent to 6,426 active employees and 1,077 training sessions.

Language Program – a tool created to enable professional development based on learning English, Spanish, and Portuguese. In 2022, 261 employees registered for the program.

Technical Schools – a program of online and in-person technical graduate and undergraduate courses focused on developing competences that are hugely important for the growth and consolidation of our business in different countries. At the moment, there are three such schools in operation:

- **Mining Development**, which focuses on building the future of mining, currently with 58 participants, 32 of them with degrees in Mining Engineering, and 26 with graduate degrees in Mining.
- **GMIRM**, a mining risk management program focused on health, safety, and well-being, which trained 199 employees in 2022, mostly Nexa leadership.
- **Innovation**, focused on training employees with a creative profile to drive the company's innovative culture. In 2022, 22 employees completed the program.

- **Entryways** – programs that offer opportunities for young talents to better prepare themselves for the professional market. These include:

- **Enable**: for Nexa in-house talents and for talents outside of Nexa. The goal is to improve participant technical and management competences by exchanging experiences and learnings among talents selected from all Votorantim S.A. investees. There were 29 participants in 2022, among them 13 plural talents (people with disability), and 3,480 hours of training.

- **Internship Program**: Interns are developed through on-the-job activities, training, knowledge exchange with leaders, and practical projects. In 2022, we had 247 active interns in Brazil and Peru.

- **Professional Learning**: a program for professional qualification and insertion in the job market for youth from 14 to 24, and for people with disabilities of any age. In 2022, our units in Brazil had 104 apprentices.

Cultivating Leaders – a training program for Nexa leaders that seeks to develop team management skills. In 2022, we trained 472 leaders in Brazil and Peru, with a total of 1,888 hours.

Recognition Program – an initiative that encourages employee recognition based on the key behaviors that drive the Nexa culture. Using a computerized platform known as Reconhecer (Recognize), employees may recognize colleagues and/or be recognized using Zincoins, an internal Nexa currency. Zincoins may be exchanged for goods placed in the platform. Our numbers in 2022:

- 4,042 employees recognized others.
- 4,335 employees were recognized.
- 275 million Zincoins were shared.

Benefits and compensation

GRI 2-19

The Nexa Resources compensation policy aims to attract and retain talents, reward performance, and offer compensation compatible with the industry. To achieve this, we use a combination of base salary and variable compensation, that is based on performance and the targets achieved by employees. In this way, we strive to encourage development and results delivery while keeping a fair policy compatible with the industry. For further information about our policy, please see our Form 20-F Report.

To maintain a more inclusive organizational environment, we created a group of people focused on plurality, to discuss and run surveys to implement benefits and activities that contribute to employee needs, in line with key industry practices.

One of the highlights was the implementation of the OrCam MyEye device, an accessibility device to help the visually impaired. This device couples to eyeglasses and is able to read print, text on a screen, or help wearers recognize their environment, among other functionalities.

Regarding compensation, a corporate ESG target was included in the strategic targets for senior managers, referring to the approval and consolidation of Nexa’s ESG plan. For all other professionals it cascades down according to the responsibilities of each area and the projects related to this theme to give all employees a sense of responsibility for ESG topics.



Health, safety and well-being

GRI 3-3

We build an increasingly safe environment to reduce fatalities, the frequency and severity of accidents. We also promote a more human healthcare environment, with measures to prevent occupational and other diseases, since one of our priorities is to increase the health, safety, and well-being of our employees and service providers. This is a non-negotiable value and an essential component of our work.

For this reason we develop actions and programs across the entire company based on the following guiding principles:

- Eliminate fatalities
- Reduce accident frequency and severity
- Increase the health, safety, and well-being culture and standards of all units. **GRI 403-2**

We focus on correcting risky behavior and on strengthening a culture that does not tolerate violation, encourages reporting of unsafe conditions, and plans activities to ensure risk control is implemented.

3. In addition to the fatal accident in Cajamarquilla, two other fatalities occurred at El Porvenir unit, nevertheless, they are under investigation by the Peruvian authorities since they were caused by illegal activities carried out by the victims, and therefore their work-related status is under review. This event happened in April 2022 and was duly reported to the Peruvian authorities, and then investigated by Nexa Resources.

We constantly work to keep our fatality rate at zero. Sadly, after two consecutive years with no fatal accident, we had one fatality³ at the Cajamarquilla smelter in Peru.

This accident happened in a confined space, when repairing part of the acid plant. The oxygen level was low and sulfur dioxide was present. Despite the rescue measures implemented the worker involved unfortunately did not survive. Different measures were implement to avoid any recurrence, such as constant monitoring of the environment in confined spaces and constant supervision by the safety team. We also validated the critical controls in place and ensured suitable training for those responsible for approving this type of activity. The rescue brigade was reorganized and equipped to ensure adequate response should a similar incident occur. **GRI 403-9**

TOTAL RECORDABLE CASE FREQUENCY (TRCF)¹

Year	Lost time and no lost time	Lost time
2020	2.40	0.79
2021	1.94	0.61
2022	1.96	0.74

1. Rates were calculated as the annual sum of man-hours worked (MHW) and the average number of workers in all months. For these calculations interns and apprentices are excluded, except for the Aripuanã, Juiz de Fora, and Três Marias facilities, which do include them in the calculations. This will be standardized across all Nexa operations in 2023.





Health & Safety Management System

GRI 403-1, 403-2, 403-8

The Occupational Health and Safety (OHS) Management System elaborated based on the best market practices, contributes to the objectives of the operations to have standardized processes, to carry out performance evaluation, to develop continuous improvement, and to boost the culture in health and safety, once the system guides procedures and norms, for a safe and healthy operational routine in the whole company. It covers own employees and third parties, having a specific set of norms and procedures for third parties. **GRI 403-8**

It is based on three pillars in constant progress: planning; implementation and control; and monitoring and learning. Based on these, responsibilities and authority become clear, as do the expectations of what is to be achieved. Data and information are provided to monitor indicators and perform audits.

In 2022, 65% of our employees were trained in health, safety, and emergency management, totaling over 121,000 hours of training. **GRI 403-5**

In 2022 we made an important progress in our cultural transformation. Working with University of São Paulo (USP), which follows a proposal of the University of Queensland in Australia, we have started training our entire leadership (directors, general managers, area managers, coordinators, and consultants) in Global Minerals Industry Risk Management (GMIRM).

The goal is to promote significant and lasting changes in the company's decision making process, and improve risk management. Throughout the year, groups of leaders in Brazil and Peru were trained by USP to improve their concepts and consolidate the basis that will support our cultural transformation. In 2022 we trained 199 leaders, equivalent to 5,976 hours.

In 2022, one of the outcomes of the program was the self-assessment of the safety, health, and environmental culture of all business units to kick-start their journey towards cultural transformation. This will be cascaded to team leaders in 2023, and then to the working fronts.

In 2022 we also worked on risk management by layers. We finished mapping the undesired events of all operating units and based on this critical controls will be defined, then monitored by leaders to eliminate fatalities and reduce the number and severity of incidents involving people.



Another action that involved all senior leaders were events to become aware of high-potential accidents. From time to time, meetings are organized with senior leaders to disclose lessons learned and preventive measures to avoid new incidents.

In 2022, self-assessments of the Critical Risk Protocols were performed to assess adherence. As part of this process, each unit created a customized checklist showing how it manages risk and the level of adherence to the Critical Risk Protocols.

Benefits and well-being

GRI 403-6

We promote important health prevention and protection measures for our workers to ensure healthy operations.

Occupational hygiene – prevention indicators were created to monitor exposure to risk agents such as chemicals and noise. These indicators will drive initiatives to reduce exposure (process improvements, engineering controls) and help reduce the potential for occupational diseases.

GoNexa – a gaming program that encourages exercise, healthy eating, and physical activity. In 2022 we beat our engagement records, with 190 thousand healthy tasks.

Well-being – continuous measures in all our operating units focused on education and on promoting a healthy lifestyle. We highlight special dates activities such as Pink October, Blue November, White January, and World Aids Prevention Day, among others. We also defined preventive indicators to assess employee emotional and cardiovascular risk. This will allow us to use these indicators to promote and expand our prevention and well-being activities in 2023.

Vaccination – each year we have a flu-vaccine campaign for all company employees. Covid-19 vaccination was encouraged for everyone with access to Nexa sites and offices.

Enfrente {Face It} – a program to support and monitor employees with substance abuse problems.

During 2022, 9 cases of occupational diseases were observed in the company. After being aware of these cases, appropriate prevention measures were implemented for activities with exposure to noise. **GRI 403-10**

Safety in action

GRI 403-3, 403-4, 403-7

We promote monitoring and awareness, and advise employees and third parties to ensure a very safe operation.

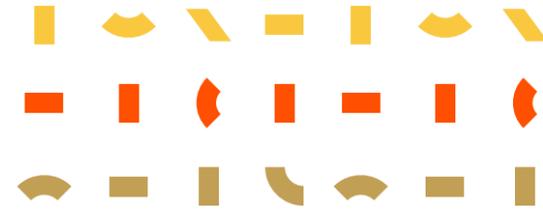
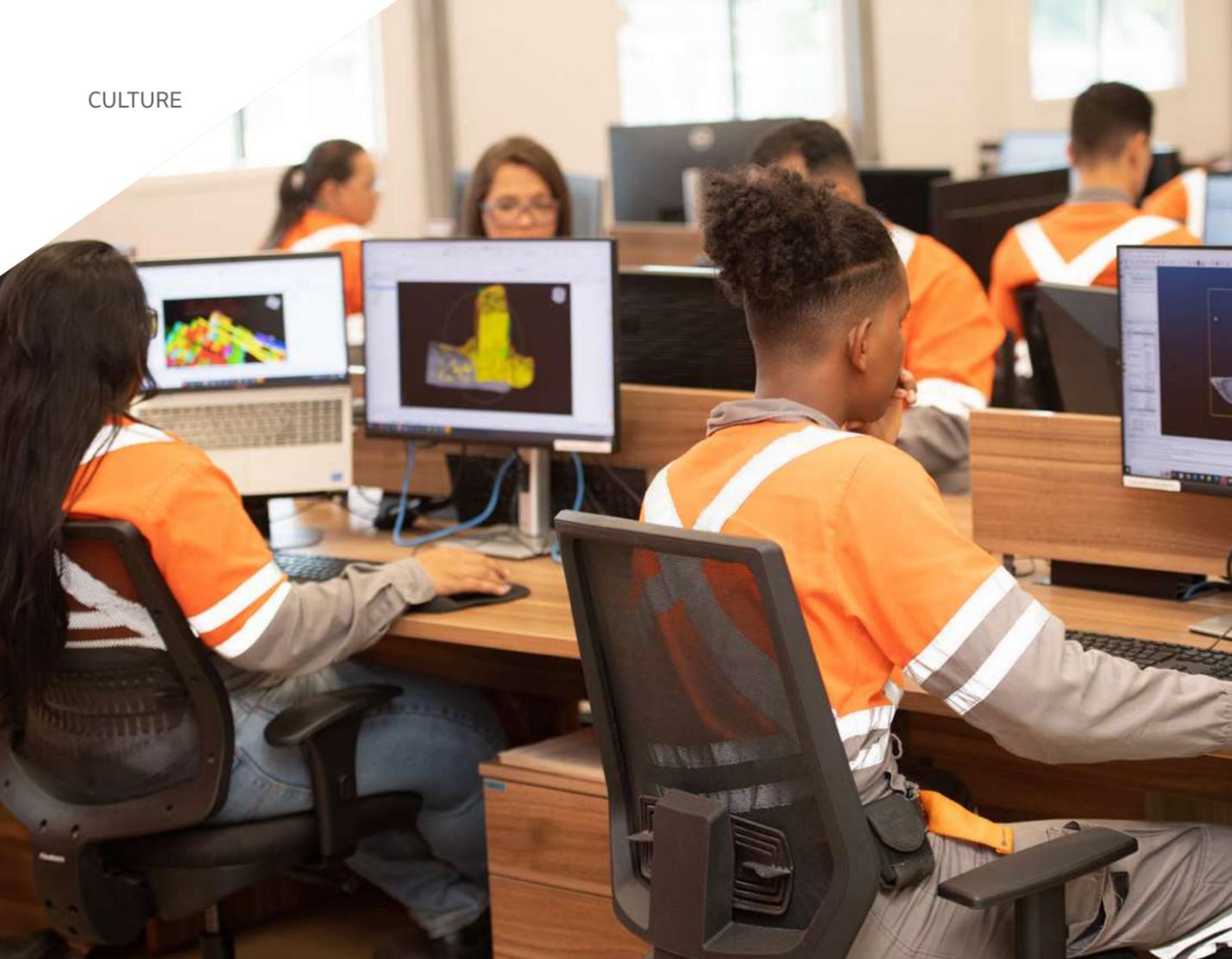
Our OWR or Observation of Workplace Risks (ORT in Portuguese) – identifies and controls activity risks to preventively reduce them.

PROA! movement – this activity takes place in December and January, critical months in terms of incidents and aims to increase employee attention and reinforce the use of protective tools and equipment.

Internal engagement – throughout the year we have internal engagement activities such as the Nexa Safety Day, Internal Workplace Accident Prevention Week (Sipat), and the Internal Workplace Accident Prevention in Mining Week (Sipatmin).

Computerized Systems – Siclope (integrated incident control system) and Apollus (process data integration and agility).





Technology, automation, and innovation

gRI 3-3

Innovation is our new way of doing things. This approach permeates all levels of our operations and helps advance our ESG Agenda. Our mission is to connect our needs with the global innovation ecosystem. We want to accelerate our environmental, social, and governance (ESG) targets with initiatives that are financially viable. Furthermore, innovation is essential to reach excellence in operations across our units, supporting company growth, cost reduction, and employee safety.

We have advanced in initiatives and have achieved results in projects to decarbonize our energy matrix, with operations consuming what used to be tailings and waste rock, and productivity and safety projects delivered faster each year. Combining all this, there is also our positive legacy initiatives that permeate other themes, focusing on creating the basis for a better future in the locations where we operate.

In 2022, we invested US\$ 15.2 million in innovation, research, and development. We adopt an open innovation style, exchanging

knowledge with universities, research centers, innovation hubs, startups, and established organizations. This allows us to leverage innovations that transform and create value for our company and society, inspiring solutions for the future.

Mining Lab

To develop ever more sustainable mining, which is one of our aspirations, in 2016 we created the [Mining Lab](#). This platform encourages open innovation and entrepreneurship with challenges related to the mining and metallurgy industry, working with partners in different industries. Currently the Mining Lab Nexa's innovation platform, comprised of five programs: Beginnings, Challenge, Channel, Miningthon e University.

Innovation Hubs

Connection and collaboration spaces to create mining of the future. This is a joint effort with other mining companies and suppliers, sharing knowledge and exchanging experiences.

MINING LAB 2022



19 open challenges
15 + de participating countries
75 finalist projects

Over **1,400** solutions registered in our database

In Brazil we have a Mining Hub, an open innovation initiative focused on the entire mining chain. Industry innovation connection, collaboration, and empowerment, working with people who influence the future of the mining chain, seeking alternatives in an integrated way. These programs focus on the common needs of over 20 associated mining companies and 10 suppliers who are members. Nexa is a founding partner and participates on the Innovation and Strategy Committees.

In Peru, the Mining Innovation Hub is a partnership program emerging from the mining companies in search of mechanisms to facilitate industry innovation and collaboration. It aims to facilitate a connection with the ecosystem, accelerate the development of initiatives to address challenge, and position mining as an innovative industry. It focuses on Peru and Chile, and currently has 8 members and 16 allies. Nexa is a founding partner and a member of the Steering Committee.

Innovation projects

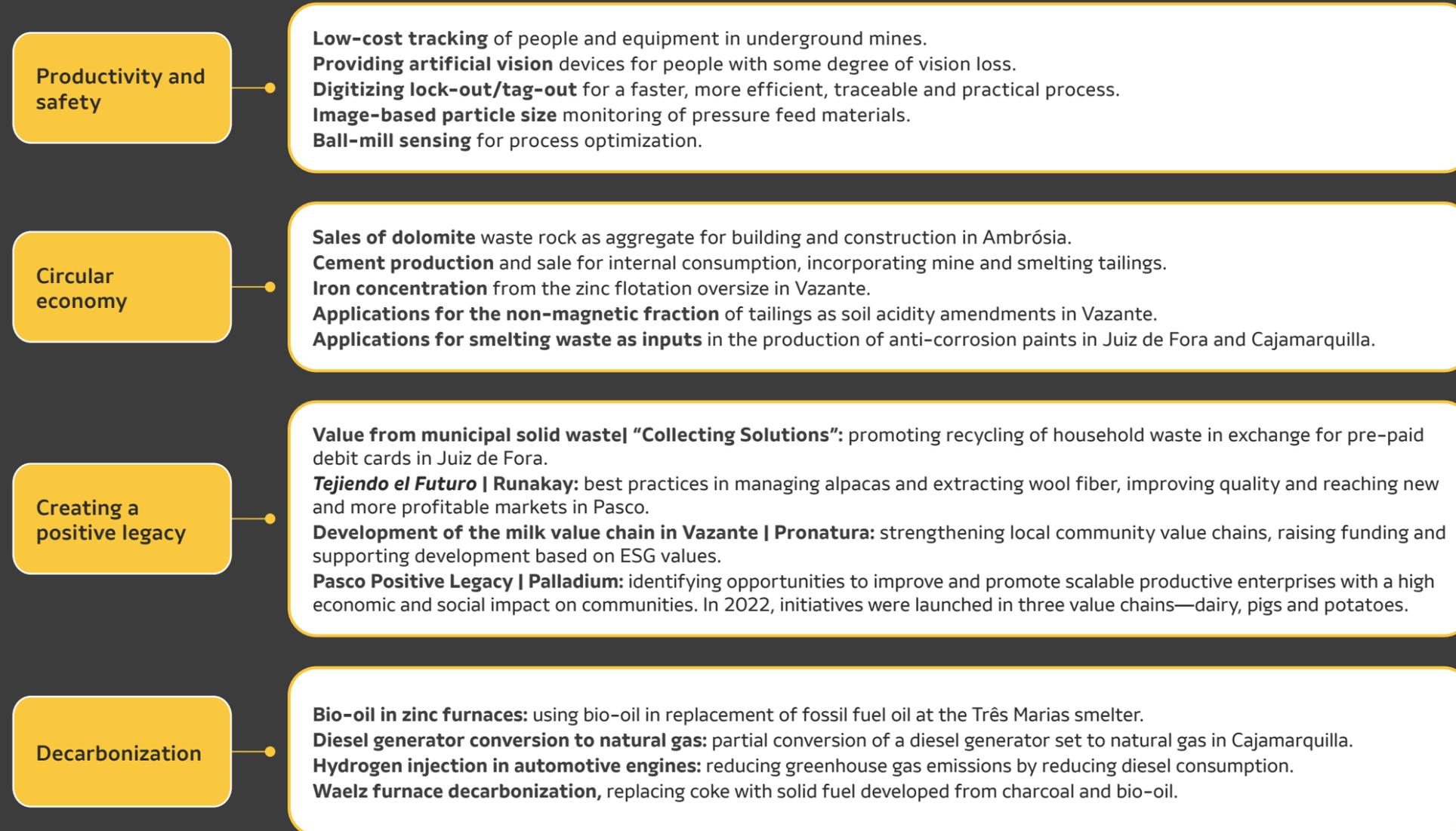
Innovation at Nexa is organized into different areas. We have the tools required to enable projects, we seek for financing, care for our intellectual property, and consider new business models sharing investments and revenue, creating our own network of relationships and expanding our reach.

Innovation also pervades other areas at Nexa, guided by the following objectives:

- Increase the efficiency and flexibility of the energy matrix, eliminating and capturing CO₂ (decarbonization).
- Create value for processed materials (circular economy).
- Search for productivity and safety technologies.
- Increase favorability creating a positive legacy.



TO ACHIEVE THIS, WE POINT OUT SOME OF THE ACTIVITIES OF OUR OPERATIONS IN BRAZIL AND PERU:





IT and cybersecurity

In IT and automation, our PlaNexa project was completed in 2022 at the financial department, automating period-end close, simulations, planning, etc.

In cybersecurity, we continued to develop initiatives to enhance cybersecurity maturity in our Information Technology and Automation Technology environments.

Our Cybersecurity Program as a highlight, based on an assessment of Nexa's technology environment and budget planning, that will work to meet identified requirements and deliver improvements over the coming years.

The program comprises three pillars: protecting human life and physical integrity; operational continuity; and cyber resilience to deal with global cybersecurity issues.



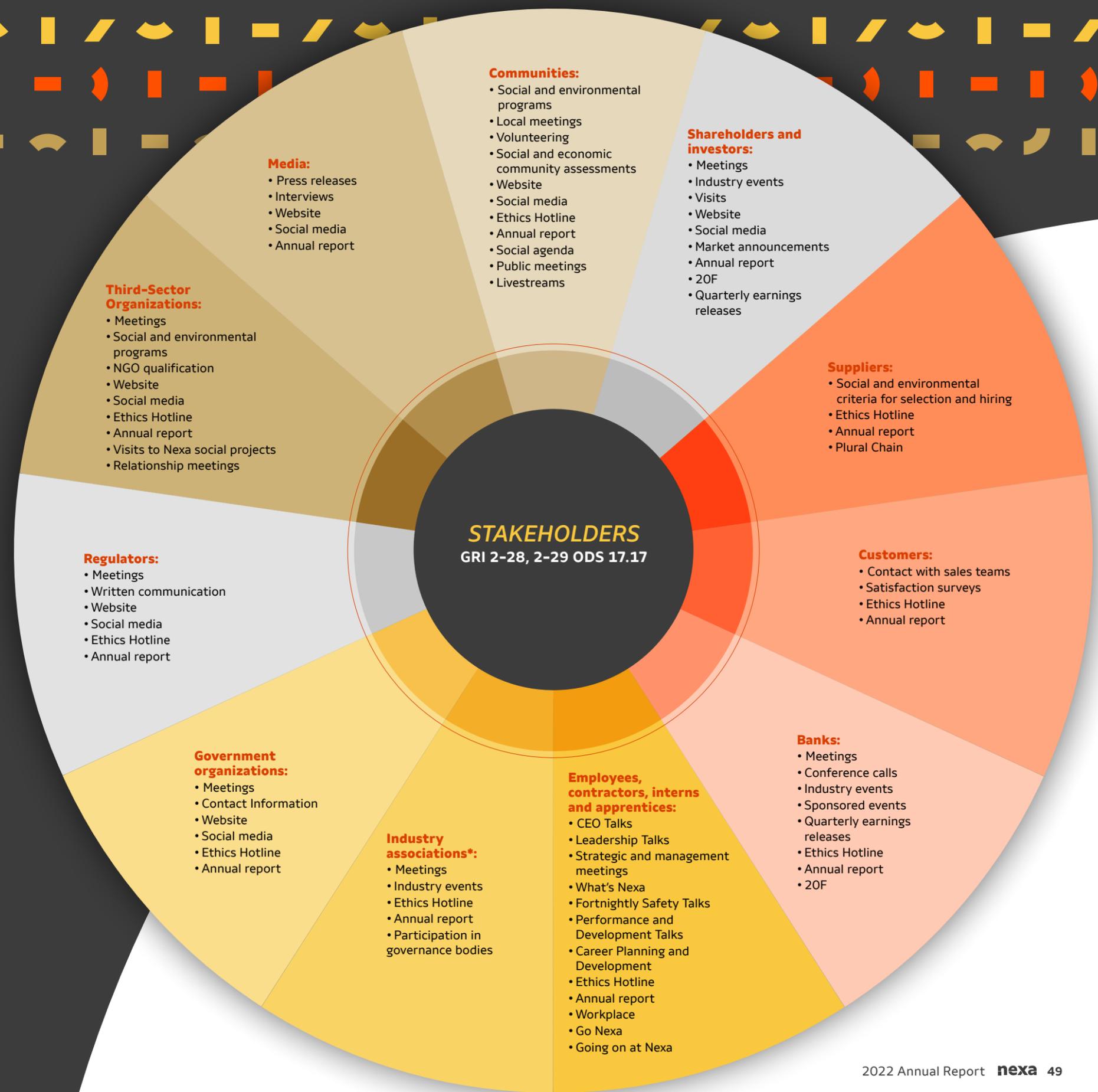
ESG

GRI 3-3

- ESG pillars relating to this chapter: S (social) and E (environmental)
- Social Capital and Relationship; Natural capital
- Material topics addressed in this chapter: Social Management, Decommissioning, Water resource management, Waste and tailings management, Data management, Climate change, Reputation

Nexa regularly engages its diverse stakeholders in a transparent manner, ensuring effective two-way communication.

* Industry associations: Brazilian Mining Institute (IBRAM); FUNSEJEM; Minas Gerais State Industry Federation (FIEMG); International Zinc Association (IZA); Nonferrous Metals Institute (ICZ); Business Mobilization for Innovation (MEI); Sociedad Nacional de Minería Petróleo y Energía (SNMPE) – Peru; Mato Grosso State Industry Federation (Fiemt); Minas Gerais Mining Industry Federation (SINDIEXTRA); Mato Grosso Mining Industry Federation (SINDIMINÉRIO); and Brazilian Association of Mineral Exploration and Mining Companies (ABPM).





Suppliers

GRI 308-2

Our Supplier Management Program aims to establish continuous communication with our business partners to ensure they adhere to our values. Regardless of the product or service involved, it matters to us that suppliers are committed to implementing best social and environmental practices, using natural resources responsibly, and respecting workers' rights. That is why we have launched a Supplier Code of Conduct that all business partners are required to be familiar and comply with.

In 2022 we launched a sustainable supply chain project aiming to create a sustainable sourcing model and to influence suppliers and customers to follow ESG practices in their operations. This project has delivered several important outcomes, including a new sustainable value chain policy incorporating sustainable criterias to be considered in assessing a potential commercial transaction. Some steps remain to be implemented in 2023 to fully complete the project.

At year-end 2022 our vendor base included 5,391 companies (3,299 in Brazil and 2,092 in Peru) across different segments: inputs, raw materials, waste management, environmental management, power supply, minerals and chemicals, fuels in general, healthcare services, packaging, shipping in general, MRO (Maintenance, Repair and Other), facilities and IT, and services and maintenance. Our supplier spend total US\$ 1.22 billion, with 10.3% spent on local suppliers **GRI 2-6**



SUPPLIER SPEND

GRI 204-1



- In Brazil, **local suppliers** are defined as small- and medium-sized suppliers that are within a radius of 100 kilometers from our operations (excluding major cities such as São Paulo); in Peru, local suppliers are suppliers that are within the direct area of influence of our operations, and have been designated as such by our Social Management team, including both local and communal suppliers.



Before onboarding and in periodic assessments within our Supplier Management Program, suppliers are screened in a process that includes reviewing documents and legal requirements as applicable to each relevant supplier category.

The supplier screening process includes integrity due diligence (IDD), which intersects commercial and tax data with a wide range of publicly available information (such as information collected from the Federal Revenue Service, the Integrated System of Information on Interstate Transactions of Goods and Services (SINTEGRA) and credit protection bureaus; information collected from internal lists; and information collected from publicly available sources and/or using reputation risk tools) to assess risks related to corruption, fraud, money laundering and terrorist financing.

If any violations related to the matters above are reported, an investigation is initiated to establish the facts and collect data, supporting decisions and the application of penalties, ranging from fines to contract termination. In 2022 there were no instances of violations related to these matters.

GRI 205-3, EM-MM-510a.1

Supplier Assessment Program **GRI 308-2**

Our program was adjusted in 2022 to include assessments on ESG practices and metrics. The changes introduced in the newly designed program includes qualitative assessments for the materials category; form and metrics reviews; a new assessment frequency (six months); communicating questionnaires and scores to participating suppliers; classifying suppliers by criticality; and the inclusion of procedures recommended by the Procurement department to better track assessment outcomes.

In this process, suppliers are assessed on ESG criteria across six dimensions: environment, social management, health and safety, performance, compliance and laws, and regulations. If a supplier fails to achieve the minimum expected score, either in aggregate or in an individual dimension, the assessor is responsible for working with the supplier to create an action plan to address weaknesses.

On an annual basis, a Supplier Recognition Program presents awards to recognize suppliers that have consistently and notably demonstrated our values and sustainable principles, creating value from the perspective of the department procuring the services or products, and strengthening collaboration and partnership.

Through the Recognition Program, we encourage our business partners to implement and enhance initiatives aligned with our newly articulated purpose: **“To integrate mining into an ever-changing world as an opportunity for sustainable development.”** One of our goals on this front is to increase the percentage of women in our operations, as we also mobilize strategic partners to achieve this goal.

Of the total suppliers that Nexa considered for selection or hiring in 2022, 98% were screened on environmental criteria. In the year, 5,195 suppliers underwent human rights assessments (96%), with 6 identified as causing significant potential human rights impacts. For these cases, process improvements were agreed to ensure they are compliant with Nexa requirements. No supplier contracts were terminated in the period.

GRI 308-1, 414-1, 414-2



Plural Chain

Plurality is intrinsically linked to our ESG strategy and is a core priority topic for sustained business growth. Through diversity, we generate positive impact on our results and on society.

We constantly strive for diversity through five major affinity groups: *Empodera* (women); *Tonalidades* (race and ethnicity); *Acessa* (people with disabilities); *Orgulho* (LGBTQIAP+ community); and *Conexão* (generations). Learn more about this topic in the [Culture chapter](#) of this report.

The Empodera women's affinity group and the Procurement department developed a program, called Plural Chain, that organizes workshops to discuss our business partners' diversity initiatives in all geographies. The program aims to expand our efforts in diversity, create an increasingly inclusive culture and engage our suppliers, which account for nearly half of our workforce.

In 2022, the project was incorporated into our Supplier Recognition Program, which recognizes and encourages ESG initiatives. In this year's edition, the program recognized 10 Brazilian suppliers and 9 Peruvian suppliers that demonstrated outstanding performance in the logistics, engineering, materials, inputs, safety and local supplier categories.

Customers

Our relationship with customers includes regular interaction with our sales teams, who are responsible for ensuring our customers' needs are met with high levels of quality, efficiency, safety and dedication.

We provide a superior offering by managing the quality of our products and services, creating new products and solutions, and developing new markets for zinc and its byproducts.

We regularly conduct customer satisfaction surveys to identify our strengths as well as our weaknesses. Our Net Promoter Score (NPS) in 2022 was 82, placing us within the excellence zone in our industry. Our Ethics Hotline is also available for customers to report any violations or concerns they identify in their relationship with us (*read more in the [chapter Performance](#)*).

We strive to consistently implement best environmental, social and governance practices. We recognize our responsibility for promoting responsible business practices along the value chain, and want our customers to engage around this commitment as well.

With this in mind, in 2022 we launched a Supply Chain Sustainability program, creating a policy on sustainable business relationships that is currently being validated for implementation over the coming years.

Active communication

We seek to provide effective communication with our customers and to regularly interact with them across different platforms.

Market Newsletter – a quarterly newsletter for Nexa customers, containing information about the zinc market and its primary drivers, innovation and developments, with a particular focus on products and services.

Zincast – a commercial-department podcast about the zinc market and technical topics, supporting more efficient and effective communication with our customers. The 5-minute podcasts are published on a fortnightly basis, with weekly editions when necessary, featuring information about the macro economic environment and the zinc market.

Society

GRI 3-3, SASB EM-MM-210b.1

Through an increasingly close relationship with the communities around our facilities, we seek to co-create social actions that enable transformation for local development.

Our goal is to promote sustainable development and enable strategic programs focused on income generation, clean water, education, and social license to operate in the surrounding communities. Currently, 82% of our operating units have programs in place related to local community engagement, impact assessment, and local development. **GRI 413-1**

Social investment in 2022

We invested US\$ 16.2 million in development and impact initiatives in infrastructure and services, including social projects in the locations where we operate, and joint projects with local government authorities. **GRI 203-1**

153
projects and initiatives

09
locations



Stand-out projects in 2022

Brazil

- **Tourism and economic development in Três Marias and Vazante:** this initiative contributes to stronger tourism in the region by providing technical support to government administration and local economic development. This benefits community, government administration, and dozens of local trade and service entrepreneurs.

- **Development of local suppliers and businesses:** this is an effort of all Nexa Brazil units, and aims to promote supplier and local entrepreneur qualification to develop the local economy and promote access to new markets.

- **Development of rural producers in Aripuanã, Morro Agudo, and Vazante:** this project aims to foster expansion, product diversification, and training of rural producers and associations.

- **Professional Training Program:** partnering with Senai, the National Industrial Learning Service, Nexa enables free slots for students in diverse professional training courses such as leveling machine operator, loading and transportation, mining operations assistant, and industrial mining maintenance mechanic.

Peru

- **Sheep chain in Pasco:** this project aims to drive the competitiveness of the meat, fibers, and artisanal products from sheep, alpaca, and vicuna, increasing the income of the families that make a living from this activity.

- **Irrigation Water in Cerro Lindo:** channels, reservoirs, and wells were rehabilitated, resulting in more efficient access to irrigation and drinking water for farmers in Chavín and the Topará Valley.

- **Education Networks:** teachers and school principals were monitored throughout the pandemic to ensure the continuity and quality of education of the Learning At Home Program. Widespread mobilization also monitored the safe reentry of students and teachers in primary and secondary schools after two years of distance learning, providing school material and hygiene kits, and adapting schools with proper signage and hygiene materials.

- **Telehealth:** the Telehealth service in Pasco and Inca was embedded, ensuring sustainable ultrasound scans as part of regular public healthcare.



Results of social projects and initiatives in 2022 GRI 203-1

- Improved productivity of the vicuna chain in Pasco: 50.32 kg of vicuna fiber were produced in 2022, equivalent to US\$ 15 thousand. 46 women were trained in artisanal textile works, enabling them to generate income by producing and selling clothing and textiles made of alpaca and sheep wool.
- Development of local suppliers and businesses: In Três Marias this benefited 66 people, and 234 in Vazante.
- Installation of libraries and tools to reinforce reading in the Cajamarquilla area: 6 schools and 3,121 adults benefited from this initiative.
- Three Primary Care Units (PCU) were delivered, improving health indicators with projects that support government administration. In addition, the Aripuanã unit was refurbished.
- Project to strengthen the tourism chain in Três Marias (alternative economic development), recognized by the Brazilian Tourism Congress.

Dialog channel

We created open dialog channels and are committed to good relationships with the communities surrounding our operations. We seek to establish long-lasting, transparent, and trust-based relationships.

Participation and management:

numerous communication and dialog mechanisms in the communities, such as websites, e-mails, phones, physical boxes for paper notes, and in-person service by the social management team.

Leadership Development: we have promoted a Social Agenda in our operations in Brazil since 2018, which includes training, planning, and intervention to foster social involvement, leadership development, and community networks for local development.

Nexa Open Doors: we open the doors of our units for community visits, creating a trust-based relationship. The public invited for these visits range from employee family members to students and community residents. In all, 25 visits were made in 2022 to the 5 Nexa units in Brazil. Over 500 people visited our operations, looked at our dams, and received additional information about Nexa.

Information and Participation Offices (OIP): our Peru units seek to promote the active involvement of the communities with information offices, a more representative mechanism for communication and

participation in areas that are accessible, using a set of tools defined on the communication plan. Informative meetings, workshops, and assemblies are organized. Likewise, environmental monitoring is done together with the community.

Nexa + Community: a day of citizenship and cultural activities with services provided together with government agencies and social organizations that include documents issuance, a job/profession fair, and information on personal care. Nexa + Community happened across all units in Brazil in 2022.

Social master plans

Master plans aligned with the business allow us to reflect on measures we can put in place to work preventively with communities and expand our impact, fostering social and economic development.

They set out the general guidelines for the relationship and contributions to a social legacy over time, with continuous planning that is updated every year, looking at a five-year horizon. This first version will be improved yearly, always in connection with the communities, discussing and aligning the initiatives proposed.

This will allow us to identify a range of short and medium-term social challenges that we must manage to co-create a positive legacy while, at the same time, allowing our operations to develop and grow.

In 2022 the social master plans for Brazil were reviewed, and social initiatives prioritized to be in line with the company's new focus to generate more value. Its strategic social themes are reviewed each year.

Operations near indigenous communities

GRI MM5

We have four operations located close to original or indigenous populations. In Aripuanã (MT) our operation is some 10 km from Cinta Larga and Arara do Rio Branco indigenous communities. In Peru, our operations are close to Quechua populations in Cerro Lindo, Atacocha, and El Porvenir. These were recognized as an original community only recently, after our operations were already in existent.

These Peruvian communities are identified players of our social relationship strategy. In some cases, they own the surface rights to the land we mine, and thus receive compensation under a range of agreements and contracts, where their qualification as original peoples is of no impact.

In Aripuanã, even though the communities are not in the direct area of influence, we voluntarily developed what we call preventive activities with the Cinta Larga and Arara do Rio Branco indigenous communities, using the eight dimensions listed in the Indigenous Component Study,

complying in full with applicable legislation for activities involving indigenous people in Brazil.

We respect and comply with the requirements of OITA 169, checking and striving for prior free and informed consent of the locations where there are indigenous peoples, as per international conventions and the laws of each country.

We should also mention that, in these territories, we have formal social investment agreements with local communities, that have been validated by community representation institutions as required by the laws of Peru for the collective lands of original communities.

We are All

Nosso programa de voluntariado está presente em dez municípios no Brasil e no Peru, tendo como proposta fomentar a participação social e o desenvolvimento de redes e alianças locais, propiciando diálogo e maior engajamento das comunidades para o desenvolvimento sustentável local.



VOLUNTEERING IN 2022

BRAZIL

5 locations
11,980 hours' volunteering
47 initiatives and activities
23,253 people benefited
395 participating employees

PERU

4 locations
3,642 hours' volunteering
58 initiatives and activities
2,208 people benefited
382 participating employees



Decommissioning and positive legacy

GRI 3-3

All our units have future use studies for the areas directly impacted by operations, based on risk criteria. These determine the decommissioning plan for each structure that belongs to each unit to be discontinued.

From initial planning, through operations and beyond, we ensure suitable decommissioning of our activities and will support a positive legacy for the surrounding community. Thus, decommissioning is part of the business strategy and is monitored by internal policies that include operations up to the senior management.

We have decommissioning and future use plans for all our operations, developed using the most up-to-date and practical technical references available worldwide. **GRI MM10**

Decommissioning plans extend to the tailings dam to be deactivated once their useful life has expired. Even beyond this we continue monitoring areas based on each specific control needs of each location.

Examples of such plans are the Santa Rosa and Sinaycocha operations in Peru, which reached the end of their lifetime. In 2021 and into 2022, two phases were completed – dismantling and remediation. After remediation, vegetation was replaced to create a community use area.

The Chapi unit, also in Peru, is another example. It is no longer operational and is being decommissioned according to the approved plan.

In Vazante, part of the Vazantes Mineiras project that looks at the future use of the company's rural properties, we develop farming/ranching, socioenvironmental, research, and tourism activities. This project was developed within the Nexa essence of leaving a positive legacy, protect the local environment and biodiversity, introduce innovation, and put people first. The goal is to create an innovative and structured plan, applying long-term strategies with a new look to management and processes.

Environmental Permit for Increasing the Height of the Murici Deposit in Três Marias

We have signed a Preliminary Term of Commitment with the Minas Gerais Public Prosecutor [Ministério Público de Minas Gerais - MPMG] to ensure the rights of those living in the Self-Rescue Zone (ZAS) of the Três Marias tailings dam. This agreement considered the State Policy of those Affected by Dams.

We retained independent technical advisors to help negotiate with those affected by the raising of the Central and West 1 modules of the Murici tailings storage facility, built using the downstream approach. This dam receives industrial waste from the manufacture of metallic zinc alloys and zinc oxide.

To enable raising the tailing dam we fulfilled the involuntary displacement or resettlement plan for the population in the Self-Rescue Zone, as per State Law 23.291/2019. There were 50 constructions in this area, 19 so called non-built properties (property over 500 sq. meters with no buildings, i.e. a utilization coefficient of zero), and 25 inhabitants. **GRI MM9**

In 2022 we met with local communities and leaders to explain the relocation process. We also started to negotiate with those families interested in negotiating directly with Nexa. These negotiations were peaceful and conflict-free due to the transparency and social dialog. At the end of the year, 22% of the negotiations, relative to the total, were concluded.

Emergency drills

SASB EM-MM-540.a3

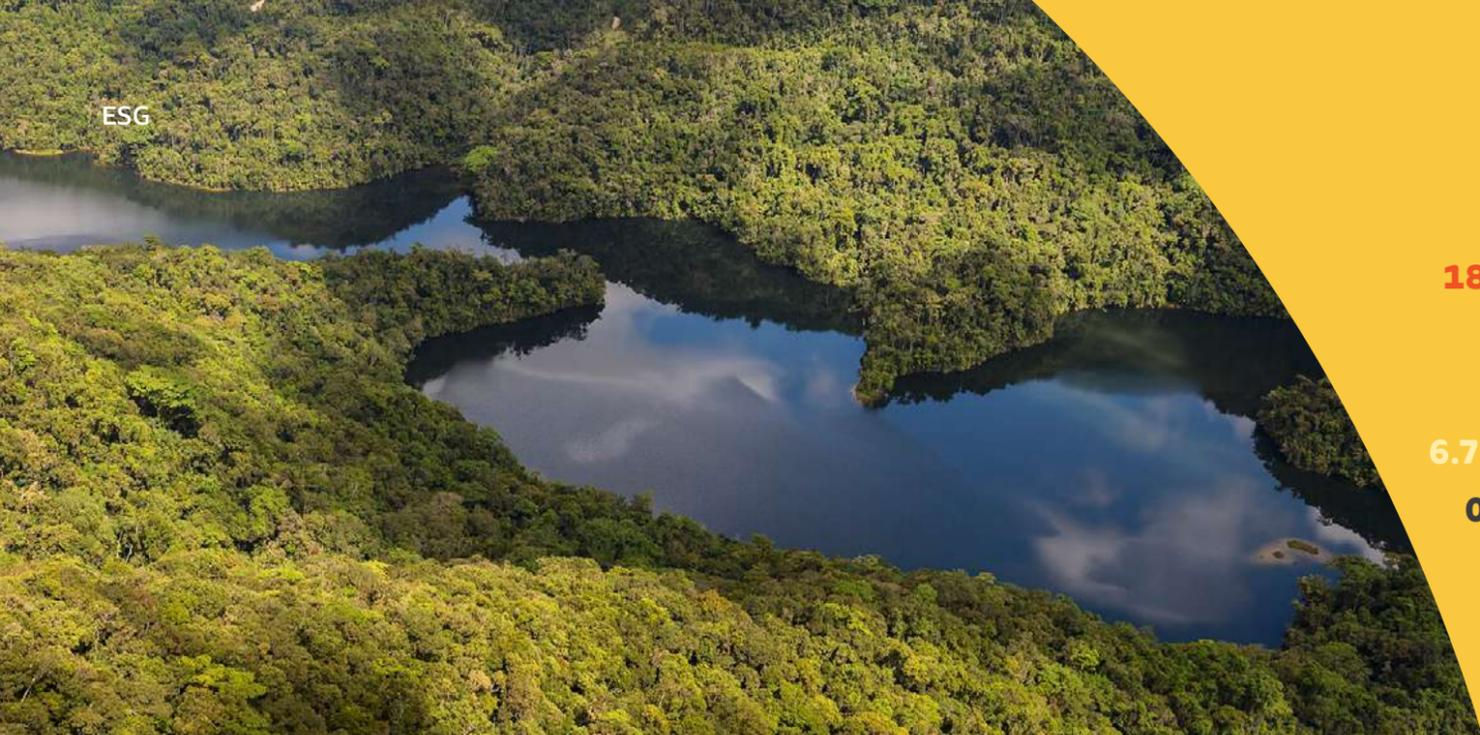
In 2022 we conducted four emergency drills, working with the civil defense and fire departments. All tailings dams are safe, and drills to evacuate residents from the self-rescue zone are an integral part of each structure's Dam Emergency Response Plan (PAE) and the Emergency Action Plan for Mining Dams (PAEBM), in compliance with the local legislation.

Sirens

In 2019 we installed a siren system in the self-rescue zones (ZAS) of all our mine operations in Brazil, the same system used in the US to provide early warnings of hurricanes.

In 2022, the emergency siren system was inadvertently activated at dam 3 in Morro Agudo. All of our tailings dams are safe and have been inspected by regulatory agencies and specialized independent consultants, attesting their stability.





Environment

Our Integrated Management System is based on a policy that establishes guidelines on doing business with a focus on quality, environmental, health and safety management, and social responsibility, in compliance with the environmental laws and regulations applicable to our business in each country where we operate.

We use internationally recognized compliance management systems that support us in achieving our goals—all operations have an environmental management system, and each operation undergoes an annual independent third-party assessment on compliance with environmental laws, regulations and commitments.

The system has been implemented using PDCA (Plan, Do, Check, Act), an iterative, four-step approach. Different programs and tools are used to ensure the proper

operation of the system: clearly articulated goals and targets, management of applicable risks and requirements, dam management, internal and external audits, flash indicators and, more recently, an environmental component within the Nexa Way, and the Siclope initiative management platform. From our operations, 9 of them have active Environmental Management Plans, which represents 100% of our operational units. **SASB EM-MM-160a.1**

The Nexa environmental management system works toward the following aspirations:

- Ensure our strategic planning and operations are aligned with our ESG strategy.
- Ensure tailings and water dams are managed safely.
- Elevate our health, safety, environment, and well-being standards.

ENVIRONMENTAL INVESTMENTS EN31



ENVIRONMENTAL EXPENSES



Water resource management GRI 3-3, 303-1, 303-2

Our Sustainability Master Plan and Corporate Standard on Water Management provide guidelines on ensuring the responsible use of water resources and establish goals to consistently reduce water consumption and improve water management efficiency. All water withdrawal and discharge must be covered by previously obtained permits from the appropriate authorities, in accordance with the local policies of the countries where we operate. At Nexa, all water withdrawals are appropriately licensed by the relevant environmental authorities and follow the quality standards defined through the grants of each location.

Our operations regularly implement initiatives to reduce water consumption. We have an ongoing pipeline of projects to reduce withdrawals and increase water recycling. These projects helped us to meet our 2025 target (75% water recycling) ahead of time in 2021. In 2022, our water recycling rate was 81.2%, slightly lower than in 2021, but still an excellent result compared to previous years. **GRI 303-3**

In Brazil, we are subject to several environmental regulations related to, among other matters, water resources, caves, waste management, contaminated areas, protected areas, and conservation of protected areas. All operations in Brazil have water usage permits in accordance with Brazilian, state, and municipal regulations. In addition, all activities in any way affecting protected areas are covered by ongoing environmental measures, such as implementing stringent controls on local impacts.

In Peru, mineral resources are owned by the state, and the government establishes by law the conditions under which mining rights and easements are awarded. All our activities in the country are compliant with environmental requirements on water use, forest resources and protected areas.

RECYCLING RATE

In 2022 we achieved a water recycling rate of **81.2%** in our global operations.

WATER CONSUMPTION GRI 303-5

We consumed **4,210,016.58 m³** of water in our operations in 2022.

EFFLUENT TREATMENT

Roughly **36%** (around R\$ 40 million) of our environmental investments and expenses in 2022 went to effluent treatment.

Process differentiators

In mineral exploration, we take precautions to protect the surrounding environment. All water used in exploratory drilling is reused and recycled. No water returning from exploratory drilling is discharged into the environment. Water is stored in decanting wells until it evaporates, and the sediments are compliantly stored to prevent contamination. All rigs keep rigorous control of the use of fuels and lubricants, and we provide all required containment.

Legado das Águas

We are one of the founding companies of *Legado das Águas*, the largest private reserve of Atlantic Forest in Brazil, with an area of 31,000 hectares, maintained by Votorantim S.A. Located in the Vale do Ribeira region, in the south of the State of São Paulo, *Legado das Águas* combines scientific research, academic studies with the development of new economy initiatives that value biodiversity. Currently, Legado das Águas is managed by a company named Reservas Votorantim, created to establish a new model of private protected area, whose activities generate social, environmental and economic benefits in a sustainable way.

Water conservation initiatives in communities

In **Cerro Lindo**, we recycle more than 90% of the water used in our operations and no water is discharged into the environment. All required water withdrawals due to evaporation and other losses are drawn from the sea. This improves water distribution and availability for local needs. The operation's water requirements do not compete with human consumption, animal watering or other water uses. In a water-scarce location, desalination ensures other uses are not affected by water stress.

In **Vazante (MG)**, our People Stewarding Water program aims to protect water springs in the Santa Catarina River Basin by fencing them off. Since 2018, 110 of 134 water springs were protected by building 62,049 meters of fencing. The project also aims to provide environmental education to communities and schools, and protect, conserve, and preserve water supplies in the municipality of Vazante.

This project was the only Brazilian initiative among the 200 case studies presented during the Regional Water Dialogues held in Chile in February 2023, organized by the Economic Commission for Latin America and the Caribbean (ECLAC), an organization linked to the United Nations (UN). Our People Stewarding Water project was one of 8 case studies presented during the event.

A Regional Water Dialogue was held in March 2023 in New York in the lead up to the UN Water Conference, to evaluate progress toward Sustainable Development Goal 6 (water and sanitation). The objectives of the event included: assessing progress on SDG 6 against established commitments; accelerating implementation in Latin America and the Caribbean and advancing a sustainable and inclusive water transition; sharing experience and lessons learned in pursuing the goals of the 2018-2028 Decade of Action for Water; and launching a regional, multi-stakeholder agenda around water.

Waste, tailings and dam management

GRI 3-3, SASB EM-MM-540a.2, ODS 9.4, 12.4, 12.5

Inexa invests in developing new technologies to reuse tailings and waste as part of a circular-economy approach. Three primary methods are currently used for tailings disposal: backfilling, dry stacking and, lastly, tailings dams.

Currently, 31.8% of the tailings and waste rock we generate in Brazil and Peru are stored in dams. We follow stringent tailings disposal practices and regularly review our dam management policy. Nexa currently operates 48 tailings dams—24 in Brazil and 24 in Peru—as well as a water dam at Aripuanã in Brazil.

We implement best practices in tailings management based on internationally recognized standards on controlling and monitoring tailings dams, including guidelines issued by the International Commission on Large Dams, exceeding legal requirements in Brazil. Importantly, we have implemented 7 Golden Rules for Managing Dams and Tailings Sites, which are mandatory in our operations, and a Tailings and Waste Rock Management Policy.

GRI 306-3 MM3, SASB EM-MM-150a.4, EM-MM-150a.5, EM-MM-150a.6, EM-MM-150a.7, EM-MM-150a.8

		Hazardous (in tonnes)	Non-hazardous (in tonnes)
Total weight of non-mineral waste generated		124,635.51	15,438.75
Mining and smelting waste	Tailings	10,057,333.46	1,194,873.00
	Waste rock	9,179,503.82	1,117,507.00
	Tailings recycled, reused or remanufactured	3,202,853.58	164,628.46
	Waste rock recycled, reused or remanufactured	342,428.58	1,414,153.00

Note: the higher percentage of recycled or reprocessed material is due to the reprocessing of these materials before they are stored and/or cataloged as waste. Following an assessment, our Morro Agudo operation now sells waste rock from the Ambrósia mine, increasing reuse volumes.

A particularly authoritative source of guidance on tailings management is the Global Industry Standard on Tailings Management (GISTM), issued by the International Council on Mining and Metals (ICMM), which aims to ensure that tailings storage facilities achieve the ultimate goal of zero harm to people and the environment. The standard aims to prevent catastrophic failure and enhance the safety of mine tailings facilities. **SASB EM-MM-150a.10**

Consistent with Nexa’s ESG strategy, throughout 2022 we carried out an internal self-assessment of compliance with the standard, and planned actions to be implemented over the coming years to improve compliance and our ability to meet the goals described above. This is an important initiative that will improve the safety of our facilities and enhance alignment with industry standards.

Our dam management routine is carried out by an Engineer of Record (EdR), as recommended in the relevant legislation and good waste and tailings management practices. This activity is carried out by an independent consulting company that report, on a monthly basis, the current stability conditions of the geotechnical structures. In addition, the consulting company periodically visits the units for on-site evaluation.

Alternative tailings disposal methods

Backfill: this method consists of mixing tailings/waste rock with cement, creating a slurry that can be used to fill voids in underground mines. The backfill method is used in our Atacocha, El Porvenir and Cerro Lindo operations: 46% of tailings/waste rock are returned to the mines in the Pasco Complex (Atacocha and El Porvenir), and 54% at Cerro Lindo.

Dry stacking: after removing moisture, the tailings/waste rock are stacked in layers to form an artificial mountain, with minimal environmental impact. We have used this method at Cerro Lindo and Aripuanã since the startup of these mines. In 2019, we started operating a dry stacking facility in Vazante, which substituted the tailings dam. In 2022, 97% of tailings were dry stacked at this mine.

Zero waste in Morro Agudo

All waste generated in this operation is converted into secondary products (agricultural lime) branded as Zincal 200, used in agriculture to reduce acidity in

the soil and improve crop yields. In 2022 we exceeded 1,077,269 tonnes in lime sales, and doubled waste reprocessing volumes at the plant. We also have a partnership with the local government for subsidized sales to local smallholders.

Battery recycling unit

In Juiz de Fora (MG) we have a battery recycling unit in operation since 2013, making us the largest battery recycler in Brazil. Recycling regular, alkaline, rechargeable, and portable batteries allows us to re-utilize the zinc and other metals from electronic waste in our operations, within a circular-economy approach that helps to preserve the environment.

In 2022 we recycled 154 tonnes of batteries, the equivalent of around 30 tonnes of zinc and other metals recovered and processed. In partnership with Green Electron, an electronic waste management company, we have provided more than 30 battery drop-off stations in Juiz de Fora.

The partnership collects discarded batteries and sends them to our facilities for metallurgical processing. The batteries are shredded, mixed with other secondary feed materials and fed into a Waelz furnace to extract metals in the form of oxides, which then undergo a hydrometallurgical process. The metals are then separated and sent to different production lines.

As part of our strategy of seeking alternatives to reduce mining and smelting tailings, and in compliance with local legislation, we also use these materials in co-products to avoid disposal and minimize impacts on the environment.

Circular-economy initiatives like these can repurpose and extract new value from waste materials, supporting our goal of consistently reduce the impacts from our operations on the environment.



Climate change

GRI 3-3, TCFD Ea Eb

Nexa has ongoing programs to improve our performance in clean energy use and emissions reduction in our operations and in the broader value chain. We have also established a set of related strategic goals.

We work to reduce pollution from our operations through projects to optimize treatment systems and facilities, increase the use of renewable energy, and establish commercial arrangements with renewable energy suppliers.

To achieve these goals, we identify, develop, and implement projects through which we play an active role in fighting climate change. We are constantly considering new projects to support our goals, which we track on a monthly basis against performance indicators that include return on investment, emissions reduction, water recycling, waste reduction and production expansion.

In 2022, we invested in projects at all stages of development, from P&D to implementation, including the conversion of the energy matrix in Cajamarquilla, which prevented about 3.0 billion tCO₂eq. Another project that was developed in collaboration with Hydragen progressed with field tests that proved the technology's applicability, which proposes savings of a 5–15% in diesel consumption. All Nexa units are included in the decarbonization plan, which looks for alternatives that are both environmentally and economically viable and have higher energy efficiency. Read more about the projects in the [chapter Innovation](#). **GRI 302-4, 302-5**

Climate commitment ODS 13.3

This report has been prepared in accordance with the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD), which focuses on climate issues and their financial and governance impact on the company. Our climate risks are identified and assessed based on the likelihood of occurrence and worst-case scenarios across financial, environmental, social, health and safety, legal and reputational impacts. This yields a final rating for each risk.

In 2022, Nexa developed a climate risk matrix in line with industry best practices and existing frameworks. This exercise considered different climate change scenarios to identify impacts and opportunities in each location where we operate.

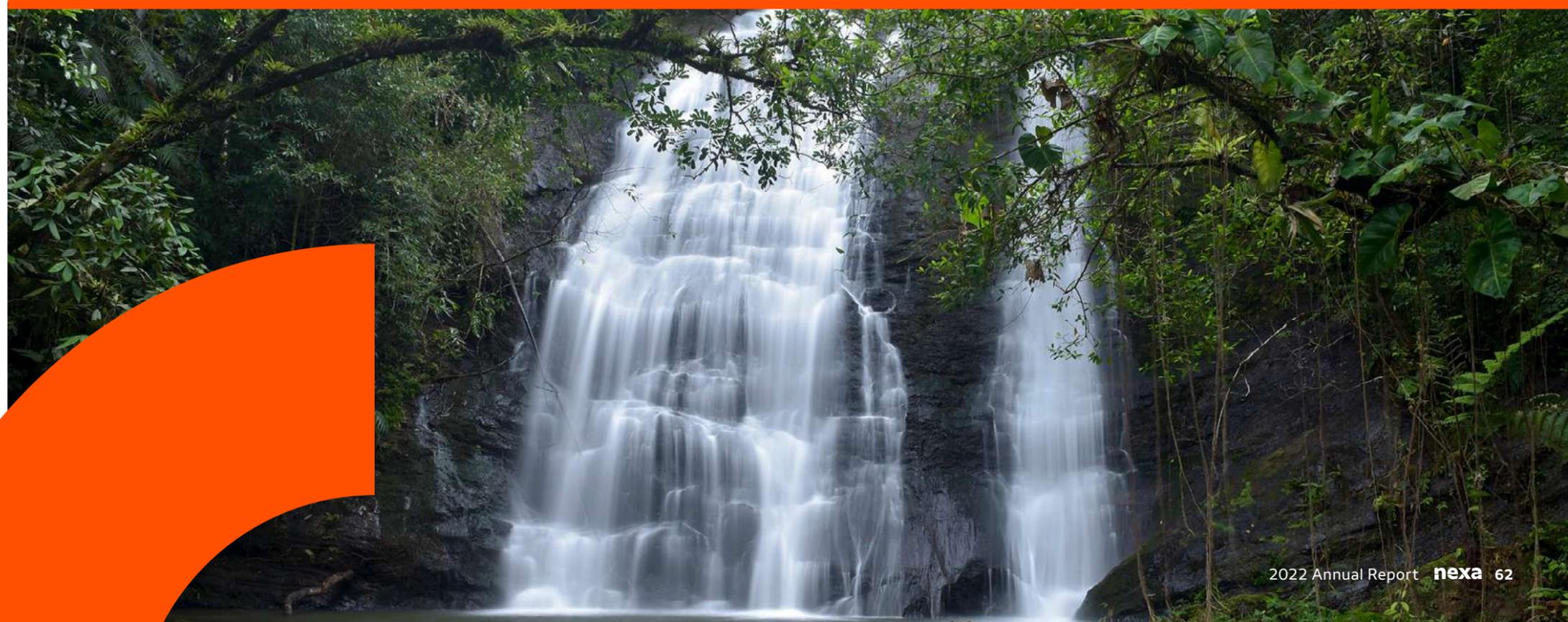
Only 1 of the 12 modeled risk scenarios were deemed likely to occur in the medium term. This risk is related to the value chain and impacts on competitiveness, market restrictions and the global financial industry. To mitigate the operational risk of flooding at mine faces, our operations have a pumping and blocking system to ensure our operations can continue safely.

We have also identified opportunities to use innovative technical and financial solutions supporting an energy mix with a high percentage of renewables. This will allow us to meet rising global demand for sustainable products and services.

Deepening this assessment and building a decarbonization roadmap are an integral

part of our ESG Strategy, which is guided by global trends such as the Paris Agreement and its goal to limit global temperature rise to less than 2 °C by 2050. Our climate change-related targets have been publicly disclosed ([read more about our goal in the ESG Strategy](#)). In 2023 we plan to revisit our risk matrix to reflect advances in management and recently published ESG targets.

*NOTE: For risks rated as high or critical, we create action plans to minimize impacts and/or the likelihood of occurrence, indicating the person responsible for implementation and a timeframe for completion. These risks are prioritized and reported on to the Executive Board, the Board of Directors and the relevant committee. **TCFD Ga Gb***



Emissions GRI 3-3 ODS 14.1, 15.5

We have consistently reduced our greenhouse gas (GHG) emissions through innovation, collaboration, and technology, working toward our goal to have one of the lowest carbon footprints in the world in the zinc production industry.

In 2022 we continued our project to replace diesel with natural gas in different processes at Cajmarquilla. In Três Marias, we ran a pilot test using bio-oil to fuel one of our 47 zinc oxide furnaces. This renewable oil will replace fuel oil. Following technical validation, we will roll out the project to other furnaces,

delivering on our decarbonization targets. In relation to our mobile fleet, we completed a pilot using equipment to partly replace diesel with hydrogen. We are now negotiating agreements to scale up vehicle retrofits across our operations and at some of our logistics partners. **GRI 302-5, 305-5, SASB EM-MM-110a.2**

Our direct (scope 1) GHG emissions* were a total of 208,472.97 tCO₂e in 2022, down 15.7% from the previous year. Indirect (scope 2)¹ emissions from purchased electricity were a total of 12,968.40 tCO₂e. **GRI 305-1, 305-2, SASB-EM-MM-110a.1**

GHG EMISSIONS IN 2022 (in tCO₂e)

GRI 305-1, 305-2, 305-3

	2020	2021	2022	% of total emission in 2022
Scope 1 – Direct Emissions	252,649.06	247,218.64	208,472.97 ³	76.5%
Scope 2 ¹ – electric energy consumption (market Place)	434,465.94 ²	7,780.93	12,968.40	4.8%
Scope 3 – value chain	86,276.16	47,570.63	50,841.13	18.7%
TOTAL	773,391.15	302,570.20	272,282.49	100%

1. The emissions reported on these pages refer to the purchasing choice approach. The scope 2 emissions for the localization approach totaled 456,073.715 tCO₂e in 2022 (the "2" is underwritten)

2. The 2020 figures for electricity consumption (scope 2) follow the location approach. Since 2021 we follow the market place approach

3. Representative decrease mainly due to the demobilization of the Aripuanã project, which went into operation in 2022

Direct (scope 1 and scope 2) biogenic emissions were a total of 130,032.90 tCO₂e, largely reflecting the use of biomass in our Três Marias operation.

***Note:** Emissions information is collected and reported using the GHG Protocol tool. For our operations in Peru, emissions are calculated using emission factors found in official local literature.

GRI 305-4

Emissions intensity was

0.36 tCO₂e¹

per tonnes of zinc and zinc oxide sold

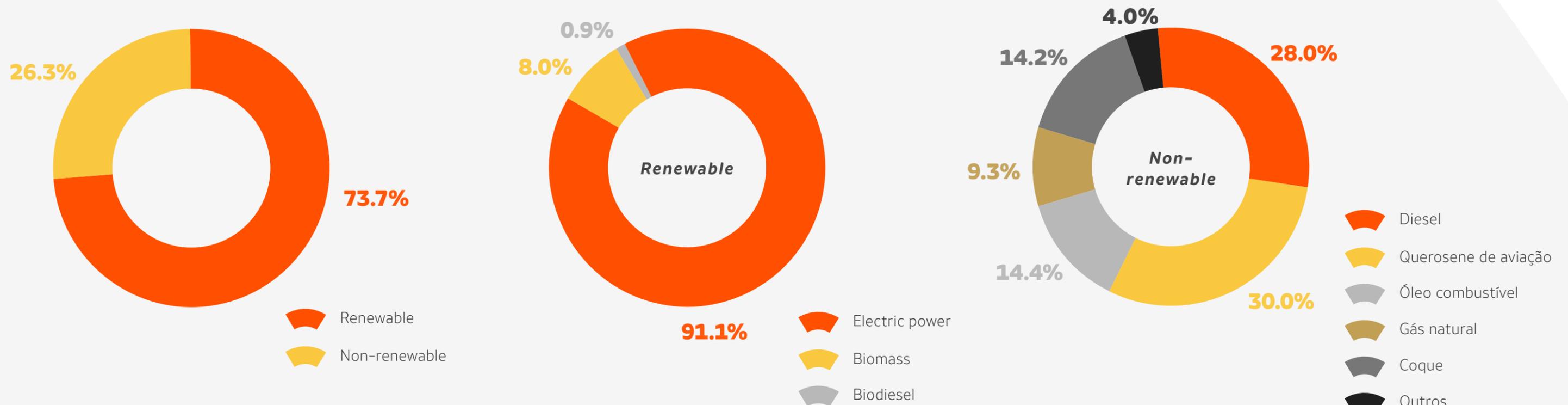
1. intensity computed by taking the sum of scopes 1 and 2 (market place)

SHARE OF RENEWABLE ENERGY IN OUR ENERGY MIX: 74%

Furthermore, we contribute to decarbonization through a wide range of initiatives:

- Use of biomass for steam generation
- Injection of hydrogen into automotive engines
- Tests with bio-oil in zinc furnaces
- Changes in the energy mix
- Commercial agreements for exclusive use of renewable electricity in Brazil and Peru

CONSUMPTION OF RENEWABLE AND NON-RENEWABLE ENERGY¹



1. We consume, in total, 12,599,698.95 GJ of Electric Energy. Of this consumption, 91,171.86 (1%) is related to self-production from Atacocha. **SASB EM-MM-130a.1**

An important project in 2022 worked to assess and measure our scope 3 GHG emissions and identify decarbonization solutions. This project was carried out in a collaboration with Way Carbon, identifying and providing an understanding of previously excluded emissions categories that will be incorporated in future inventories.

Energy

GRI 302-1, 302-2, 302-3 ODS 7.2, 13.2

Nexa is supporting the transition to a low-carbon economy through joint emissions reduction initiatives with our

Innovation team, such as retrofitting the steam boiler in Três Marias to use biomass.

Another innovative project, in Juiz de Fora, is a waste-to-energy boiler that uses industrial waste to produce steam through thermal degradation of the materials at high temperature. The gas produced in the process has a high calorific value that is used to generate energy. This project directly addresses two of our material topics: energy and waste.

Throughout 2022, we piloted the use of bio-oil—made from plant tar⁴—at our Três Marias smelter. The test results showed that the use of bio-oil resulted in lower energy

consumption, as well as a reduction in nitrogen oxide (NOx) and sulfur oxide (SOx) emissions⁵, which aligns with our commitments under our ESG strategy. **SASB EM-MM-110a.2**

In 2022, we consume 16,331,587.00 GJ within the organization, with 2,153,631.03 GJ related to sources used outside the organization. Among this consumption, 13,624,866.90 GJ is related to renewable sources, which represents 74% of our total energy consumption of 18,485,218.02 GJ. Electricity accounted for 91% of our renewable energy sources, while biofuels such as biomass, ethanol, and biodiesel accounted for the remaining 9%.

SASB EM-MM-130a.1

Our total non-renewable energy consumption was 4,860,351.12 GJ, with diesel and kerosene being the primary sources, accounting for 28% and 30% of our non-renewable energy consumption, respectively. Our energy intensity, considering internal and external consumption, was 29,76 GJ per tonnes of zinc and zinc oxide sold.

4. A thick, dark substance composed of carboxylic acids and phenolic components that is obtained through coking, filtered, and then mixed with additives

5. This reduction is due to the lower sulfur content in bio-oil, as well as a decrease in the consumption of fuel oil and a decrease in CO₂ emissions during zinc production at the Três Marias smelter



APPENDIXES

GRI, SASB, and TCFD content indexes, assurance letter, forward-looking statements and corporate information.

General

Information on employees and other workers

GRI 2-7, 2-8, ODS 10.3

		2020	2021	2022	(%)
Direct Employees, Interns and Apprentices					
Salaried	Men	3,444	3,857	3,772	21%
	Women	631	832	806	4%
Hourly	Men	1,143	1,017	926	5%
	Women	131	134	120	1%
TOTAL		5,349	5,840	5,624	31%
Interns	Men	87	95	113	1%
	Women	96	136	134	1%
Apprentices	Men	37	29	17	0%
	Women	31	93	87	0%
TOTAL		251	353	351	2%
Contractors					
Permanent	Men	6,449	6,806	7,605	41%
	Women	687	856	991	5%
Temporary	Men	4,685	7,118	3,464	19%
	Women	403	506	331	2%
TOTAL		12,224	15,285	12,391	67%
TOTAL GERAL		17,824	21,479	18,336	100%

Economic Series

Entities Included in Sustainability Reporting GRI 2-2

Entities included in Financial Reporting**

Subsidiaries

L.D.O.S.P.E. Geração de Energia e Participações Ltda. - "L.D.O.S.P.E"

L.D.Q.S.P.E. Geração de Energia e Participações Ltda. - "L.D.Q.S.P.E"

L.D.R.S.P.E. Geração de Energia e Participações Ltda. - "L.D.R.S.P.E"

Mineração Dardanelos Ltda. - "Dardanelos"

Nexa Recursos Minerais S.A. - "NEXA BR"

Mineração Santa Maria Ltda.

Pollarix S.A. - "Pollarix" *

Karmin Holding Ltda.

Mineração Rio Aripuanã Ltda

Votorantim Metals Canada Inc.

Nexa Resources El Porvenir S.A.C

Minera Pampa de Cobre S.A.C

Nexa Resources Cajamarquilla S.A. - "NEXA CJM"

Nexa Resources Perú S.A.A. - "NEXA PERU"

Nexa Resources Atacocha S.A.A. - "NEXA ATACOCHA"

Nexa Resources UK Ltd. - "NEXA UK"

Nexa Resources US. In

Exploraciones Chimborazo Metals & Mining

Subsidiaries

Campos Novos Energia S.A. - "Enercan"

Cia. Minera Shalipayco S.A.C

** Nexa BR holds all common shares in Pollarix, representing 33.33% of its total share capital. The remaining shares are preferred shares with limited voting rights, held by Nexa's controlling shareholder, VSA.

** Environmental and social series performance indicators include all operating units and, where applicable, projects and units being decommissioned. A complete list of entities included in the reporting scope can be found on page XX.

Direct economic value generated and distributed (US\$ thousand)

GRI 201-1, ODS 8.2

Descrição	2020	2021	2022
1) Revenue			
1.1) Sales of products and services	2,135,643.00	2,969,421.00	3,436,054.00
1.2) Other operating revenue (expense)	-2,268.00	-4,891.00	-698.00
1.3) Allowance for doubtful accounts	-842.00	-286.00	-861.00
1.4) Total revenue	2,132,533.00	2,964,244.00	3,434,495.00
2) Inputs purchased from third parties			
2.1) Raw materials and other production inputs	-856,300.00	-1,189,728.00	-1,463,472.00
2.2) Material, electricity, outsourced services and other	-430,867.00	-447,305.93	-566,416.53
2.3) Impairment of property, plant and equipment	-557,497.00	-	-32,512.00
3) Gross value added	287,869.00	1,327,210.07	1,372,094.47
3.1) Depreciation, amortization and depletion	-243,925.00	-258,711.00	-287,069.00
4) Net added value produced	43,944.00	1,068,499.07	1,085,025.47
5) Transferred added value	-	-	-
5.1) Equity in income of associates	-	-	1,885
5.2) Other comprehensive income from written off investments	-	-	-
5.3) Finance income	587,654.00	477,849.51	629,180.00
Total transferred added value	587,654.00	477,849.51	631,065.00
6) Total added value to be distributed	631,598.00	1,546,348.58	1,716,090.47
7) Distribution of added value	-	-	-
7.1) Payroll and related charges	213,865.00	223,115.00	259,547.77
7.1.1) Direct remuneration	123,537.00	145,915.96	165,897.00
7.1.2) Benefits	43,859.00	23,181.64	29,199.78
7.1.3) Social security charges	46,469.00	54,017.40	64,450.99
7.2) Taxes, charges and contributions	169,478.00	513,793.41	566,501.47
7.2.1) Federal	210,982.00	348,368.00	437,527.13
7.2.2) State	45,785.00	134,275.00	124,821.78
7.2.3) Municipal	55.00	27.41	38.56
7.2.4) Deferred taxes	-87,344.00	31,123.00	4,114.00

Descrição	2020	2021	2022
7.3) Interest on third-party capital	900,761.00	653,353.17	813,647.65
7.3.1) Finance expense	865,829.00	614,751.51	762,907.00
7.3.2) Rent	34,932.00	38,601.66	50,740.65
7.4) Interest on equity	-652,506.00	156,087.00	76,394.00
7.4.1) Net income (loss) for the year	-652,506.00	156,087.00	76,394.00
8) Added value distributed	631,598.00	1,546,348.58	1,716,090.89

Communication and training on anti-corruption policies and procedures

GRI 205-2, ODS 16.5

		Total employees that anti-corruption policies and procedures have been communicated to	Total employees that received anti-corruption training
Brazil	Executive/CEO	5	5
	Manager	117	108
	Coordinator/Consultant	204	185
	Technician/Analyst/Supervisor	675	562
	Trainee	0	0
	Operational	2,520	2,057
	Intern	145	101
	Apprentice	104	66
	TOTAL	3,770	3,084
Peru/Exterior	Manager	2	2
	Coordinator/Consultant	61	54
	Technician/Analyst/Supervisor	228	202
	Operational	422	390
	Intern	1,355	526
	Apprentice	102	77
	Total	0	0
TOTAL	2,170	1,251	

Environmental series

Materials used by weight or volume (tonnes) GRI 301-1

Material	2020	2021	2022
ROM	10,656,539	12,216,550	12,349,816.72
Concentrates	1,192,832	1,258,656	1,252,839.76
Other nonrenewable materials (external sources)	105.528	188.838	193,700
Other nonrenewable materials (internal sources)	323.010	278.301	78,994
Total materials used	12.278.909	13.942.345	13.875.351

Recycled input materials used (tonnes) GRI 301-2, ODS 8.4 12.1

Material	2020	2021	2022
Total recycled input materials used	85,291	3,570,052	3,760,995
Total materials used GRI 301-1	12,278,909	13,942,345	13,875,351.60
Percent recycled input materials used	1%	26%	27%

Mine sites* where acid rock drainage is predicted to occur, actively mitigated, and under treatment or remediation SASB EM-MM-160a.2

	2020	2021	2022
Percentage of its mine sites (by annual production in tonnes) where acid rock drainage is "PREDICTED TO OCCUR"	NA	19%	45%
Percentage of its mine sites (by annual production in tonnes) where acid rock drainage is "ACTIVELY MITIGATED"	NA	0	37%
Percentage of its mine sites (by annual production in tonnes) where acid rock drainage is "UNDER TREATMENT OR REMEDIATION"	NA	34%	13%

* The values reported in this indicator refer to the mining sites, since smelters does not use this method. Considering the operating mining sites, 4 mines have acid drainage, or 67% of our total mines.

Water withdrawal by source (in megaliters) GRI 303-3, SASB EM-MM-140a.1, ODS 6.4

	2020	2021	2022		
	Total volume (m ³)	Total volume (m ³)	Total volume (m ³)	In areas with water stress	In areas without water stress
Surface water (rivers, creeks and lakes)	17,208.64	16,947.47	16,959.51	-	16,959.51
Freshwater	9,852.53				
Other water	7,356.11	16,947.47	16,959.51		16,959.51
Groundwater (aquifers, wells and groundwater drawdown in mines)	119982.84	94,253.41	119,939.28		119,939.28
Freshwater	5,080.02				
Other water	114,902.81	94,253.41	119,939.28		119,939.28
Rainwater harvested and stored directly by the organization	5595.68	7,159.51	6,928.69		6,928.69
Freshwater	2,659.73				
Other water	2,935.94	7,159.51	6,928.69		6,928.69
Seawater	2909.73	3,372.91	3,057.82		3,057.82
Freshwater					
Other water	2,909.73	3,372.91	3,057.82		3,057.82
Produced water (water contained in ores and concentrates)	682.13	231.90	220.30		220.30
Freshwater	569.00				
Other water	113.13	231.90	220.30		220.30
Third-party water (supplied by utilities and suppliers)	17.78	21.56	32.35		32.35
Freshwater					
Other water	17.78	21.56	32.35		32.35
Total water withdrawal and consumption by source	146396.81	121,986.75	147,137.95		147,137.95
Freshwater	18,161.29				
Other water	128,235.51	121,986.75	147,137.95		147,137.95

Water withdrawal by source (in megaliters)

GRI 303-4, SASB EM-MM-140a.1, ODS 6.4

	2020	2021	2022	
	Total volume (m³)	Total volume (m³)	Total volume (m³)	In areas with water stress
Surface water (rivers, creeks and lakes)	128,089.84	113,945.49	126,357.56	-
Freshwater	108,665.37	8,602.94		
Other water	19,424.47	105,342.55	126,357.56	126,357.56
Groundwater (aquifers, wells and groundwater drawdown in mines)	3,973.63	3,704.57	3,651.82	3,651.82
Freshwater	3,488.83			
Other water	484.79	3,704.57	3,651.82	3,651.82
Seawater	1,882.25	2,097.73	1,864.19	1,864.19
Freshwater				
Other water	1,882.25	2,097.73	1,864.19	1,864.19
Third-party treatment	608.64	19.72	19.02	19.02
Freshwater		15.62		
Other water	608.64	4.10	19.02	19.02
Water withdrawn	2,141.54	1,952.70	1,942.60	1,942.60
Freshwater	520.14	12.00		
Other water	1,621.40	1,940.70	1,942.60	1,942.60
Other	9,620.89	8,764.76	9,092.75	9,092.75
Freshwater	683.64	1,350.70		
Other water	8,937.25	7,414.06	9,092.75	9,092.75
Total water discharged	146,316.79	130,484.96	142,927.94	142,927.94
Freshwater	113,357.99	9,981.26		
Other water	32,958.80	120,503.70	142,927.94	142,927.94

Habitats protected or restored (ha)¹

GRI 304-3, ODS 6.6

Areas where restoration measures have been approved by independent specialists or in accordance with external parameters/protocols			
Bioma ²	Yes	No	Total area
Amazon	15.121573	0	15.121573
Caatinga	0	0	0
Cerrado	19.802	1.28	21.082
Atlantic Forest	2.3296	0	2.3296
Tropical wetlands	0	0	0
Pampas	0	0	0
Other	0	0	0

1. The numbers reported here refer to rehabilitated areas and/or protected areas.

2. For the categorization of biomes, we used SNUC Brazilian Federal Law 9.985/2000.

Total weight of waste by disposal operation (tonnes)

GRI 306-3, 306-5, SASB EM-MM150a.4, ODS 12.4

NONHAZARDOUS waste disposal	2020	2021	2022
Composting	1,399.76	1,864.12	1,777.75
Reutilization	10,692.72	11,165.45	210.40
Recycling	113,922.51	7,291.14	7,587.02
Rehabilitation	0.00	0.00	0.00
Incineration (or use as fuel)	0.00	777.95	258.51
Sanitary landfill	2,092.70	2,435.27	2,958.41
Coprocessing/Refining	169.68	1,511.47	1,395.58
On-site storage	3,904.63	0.01	201.44
Underground waste injection	0.00	0.00	0.00
Industrial landfill	135.85	575.57	323.00
Other	1,203.37	717.38	726.64
TOTAL	133,521.21	26,338.36	15,438.75
HAZARDOUS waste disposal	2020	2021	2022
External reuse/Recycling	0.00	2.53	0.00
External reuse/Recycling	379.10	1,603.31	4,300.84
Rehabilitation	0.50	0.32	0.00
Incineration (or use as fuel)	1.30	68.86	77.89
Industrial landfill	2,760.06	2,741.41	54,211.22
Coprocessing/Refining	2,408.94	2,866.94	2,762.33
On-site storage	301.56	0.00	8.70
Underground waste injection	0.00	0.00	0.00
Repurposing for specific uses	4.13	0.45	1,475.23
Sale - Partial recycling	0.00	0.00	0.00
Other	44.16	298.53	61,799.30
TOTAL	5,899.75	7,582.34	124,635.51

The increase in hazardous waste is mainly due to the increase in the disposal of industrial landfill, in Atacocha, due to the increase evacuation of geological witnesses, and the inclusion, starting in 2022, of Jarosite that is considered as a byproduct in the Juiz de Fora unit, allocated in the row "others" in the table.

Significant air emissions (tonnes)

GRI 305-7, SASB EM-MM-120a.1

Emissions	2020	2021	2022
NO _x	162	289	159
SO _x	666	773	1,317
Carbon Monoxide (CO)	-	844	581
Particulate Matter (PM)	759	952	997
Other standard emissions categories identified in regulations	74	0	168

There were no observed values of Lead (Pb), Mercury (Hg), persistent organic pollutants (POP), volatile organic compounds (VOC) or hazardous air pollutants (HAP) in any of the operations where these data were collected.

Compliance with environmental laws and regulations

GRI 2-27

Variáveis	2020	2021	2022
Variables	23	31	56
Total no. of sanctions	5,169,602.80	23,363,818.40	1,156,412.82
Monetary value of significant fines (US\$)	0	0	0
Cases resolved through dispute resolution mechanisms	NA	-	0
Cases related to water resources	NA	NA	0

NA = Data not collected in the previous years.

Social series

New hires and turnover GRI 401-1

	Men	Women	< 30	30 to 50	> 50	Brazil	Other countries
Total workforce	4,698	926	995	3,889	740	3,509	2,115
New employee hires	624	229	334	487	22	618	235
Employee turnover	770	243	208	723	82	710	303
Hiring rate	13%	6%	6%	9%	0%	11%	4%
Turnover rate	-5%	10%	28%	-3%	-42%	-3%	-3%

Work-related injuries GRI 403-9, SASB EM-MM-320a.1, ODS 8.8

Work-related injuries - direct employees	2020	2021	2022
Man-hours worked (direct employees)	10,071,740.66	12,046,785.23	13,026,735.62
Total number of injuries (Level 1)	38	42	42
Total number of no-lost-time injuries (Levels 2 and 3)	18	17	12
Total number of lost-time injuries (Levels 4 and 6)	9	10	12
Fatalities	0	0	0
Injury rate (TL) - 200.000 basis	0.54	0.45	0.37
Injury rate (TL) - 1MM basis	2.68	2.24	1.84
Lost Time Injury Frequency Rate - 1MM basis	0.89	0.83	0.92
Lost Time Injury Frequency Rate - 200.000 basis	0.18	0.17	0.18
Lost-Time and No-Lost-Time Injury Frequency Rate - 1MM basis	2.68	2.24	1.84
Lost-Time and No-Lost-Time Injury Frequency Rate - 200.000 basis	0.54	0.45	0.37
Near miss rate - 200.000 basis	NA	1.98	3.65
Fatality rate	0	0	0

Occupational Injuries - fixed contractors	2020	2021	2022
Man-Hours Worked (Fixed Contractors)	15,575,493.54	20,239,578.10	20,730,811.91
Total number of injuries (Level 1)	55	81	59
Total number of no-lost-time injuries (Levels 2 and 3)	26	27	23
Total no. of lost-time injuries (Levels 4 and 6)	15	17	16
Fatalities			1
Injury rate (TL) - 200.000 basis	0.54	0.45	0.38
Injury rate (TL) - 1MM basis	2.63	2.17	1.88
Lost Time Injury Frequency Rate - 1MM basis	0.96	0.84	0.77
Lost Time Injury Frequency Rate - 200.000 basis	0.19	0.17	0.15
Lost-Time and No-Lost-Time Injury Frequency Rate - 1MM basis	2.63	2.17	1.88
Lost-Time and No-Lost-Time Injury Frequency Rate - 200.000 basis	0.53	0.43	0.38
Near miss rate - 200.000 basis	NA	0.56	1.03
Fatality rate	0	0	0.05

Occupational Injuries - mobile contractors	2020	2021	2022
Man-hours worked (mobile contractors)	10,980,524.53	16,801,122.55	12,104,829.18
Total number of injuries (Level 1)	37	39	21
Total number of no-lost-time injuries (Levels 2 and 3)	18	21	21
Total number of lost-time injuries (Levels 4 and 6)	6	3	6
Fatalities	0	0	0
Injury rate (TL) - 200.00 basis	0.44	0.29	0.45
Injury rate (TL) - 1MM basis	2.19	1.43	2.23
Lost Time Injury Frequency Rate - 1MM basis	0.55	0.18	0.50
Lost Time Injury Frequency Rate - 200.000 basis	0.11	0.04	0.10
Lost-Time and No-Lost-Time Injury Frequency Rate - 1MM basis	2.19	1.43	2.23
Lost-Time and No-Lost-Time Injury Frequency Rate - 200.000 basis	0.44	0.29	0.45
Near miss rate - 200.000 basis	NA	0.29	0.83
Fatality rate	0	0	0

Rates were calculated as the annual sum of man-hours worked (MHW) and the average number of workers in all months. For these calculations interns and apprentices are excluded, except for the Aripuanã, Juiz de Fora, and Três Marias facilities, which do include them in the calculations. This will be standardized across all Nexa operations in 2023.

For management reasons, average hours of training on health and safety have not been reported.

Average hours of training per year per employee GRI 404-1, ODS 4.4

		2020	2021	2022
Executive/CEO	Women	3	0	0
	Men	1	0	0.45
Manager	Women	14	10	19.16
	Men	13	6	40.76
Coordinator/Consultant	Women	5	6	13.60
	Men	8	7	16.05
Technician/Analyst/Supervisor	Women	23	19	24.02
	Men	27	28	25.76
Trainee	Women	0	0	0
	Men	0	0	0
Operational	Women	33	16	16.17
	Men	30	18	24.89
Intern	Women	15	6	27.49
	Men	14	5	31.85
Apprentice	Women	4	4	20.49
	Men	7	3	10.40
TOTAL	Women	20	13	19
	Men	26	18	25

Ratio of basic salary and remuneration of women to men GRI 405-2, ODS 8.5, 10.3

Position	2020		2021		2022	
	Salary	Remuneration	Salary	Remuneration	Salary	Remuneration
Executive/CEO	NA	NA	NA	NA	NA	NA
Manager	1.04	1.04	0.99	0.99	0.94	0.94
Coordinator/Consultant	1.13	1.13	1.12	1.11	1.06	1.06
Technician/Analyst/Supervisor	0.96	0.98	0.95	0.97	0.94	0.94
Operational	1.68	1.68	1.55	1.55	1.60	1.54

The category "Director/President" in 2022 was composed only of male members. The proportion hence does not apply within this category.

Diversity of governance bodies and employees GRI 405-1, ODS 5.1, 10.3

Direct employees		Total	< 30	30-50	> 50
Board	Men	0	0	0	0
	Women	0	0	0	0
Executive/CEO	Men	7	0	2	5
	Women	0	0	0	0
Manager/General Manager	Men	115	0	91	24
	Women	34	0	32	2
Coordinator/Consultant	Men	343	37	263	43
	Women	247	19	211	17
Technician/Analyst/Supervisor	Men	929	112	741	76
	Women	294	110	169	15
Trainee	Men	0	0	0	0
	Women	0	0	0	0
Operational	Men	3185	535	2129	521
	Women	470	182	247	41
Intern	Men	113	106	7	0
	Women	134	124	10	0
Apprentice	Men	17	17	0	0
	Women	87	87	0	0

Minority membership	2020	2021	2022
Employees over 50	954	830	744
Women	882	889	1266
Composition of governance body (Board of Directors)	2020	2021	2022
Men	17	17	14
Women	3	2	2
Composition of governance body (Board of Directors)	2020	2021	2022
Under 30	-	-	-
30 to 50	5	5	3
Over 50	14	13	13

Incidents of discrimination and corrective actions taken

GRI 406-1, ODS 5.1

Incidents of discrimination	2020	2021	2022
Reports received by our Ethics Hotline during the reporting period	158	59	130
Cases received during the reporting period	11	8	14
Cases investigated and deemed unsubstantiated	104	37	62
Cases investigated and deemed substantiated	43	14	54

Employee training on human rights policies or procedures

GRI 2016 412-2

Percentage of employees trained during the reporting period	2020	2021	2022
Number of employees trained on human rights policies or procedures	1,186	1,771	4,511
Percentage of employees trained on human rights policies or procedures	20%	32%	75%

Non-compliance with laws and regulations – labor and tax

GRI 2-27

Variables	2020	2021	2022
Total no. of non-monetary sanctions ¹	-	-	-
Monetary value of significant fines (US\$)	34,083,072.76	1,766.809.98	89,778,298.872
Cases resolved through dispute resolution mechanisms	0	0	0

1. Non-monetary sanctions, that is, the number represented here are sanctions that do not involve financial values.

2. In 2022 there was fluctuation in the amount of fines, due to the increase in the years inspected, that is, in 2022, there was the inspection of fines that occurred between 2015 and 2016, finalized in the year 2022.

Sector disclosures

Land disturbed or rehabilitated (hectares) MM1

Amount of land disturbed or rehabilitated	2020	2021	2022
Total land disturbed and not yet reclaimed	2,420.8	2,351.2	2,351.3
Total amount of land newly disturbed within the reporting period (B)	37.0	13.6	2.1
Total amount of land newly rehabilitated within the reporting period to the agreed end use	106.6	13.9	0.5
Total land disturbed and not yet reclaimed	2,351.2	2,351.3	2,352.9

The previous years' figures were revised due to a better understanding of the topic. The difference refers to an adjustment identified in the Aripuanã site. GRI 2-4

Sites with Biodiversity Management Plans MM2

Number of sites that have been identified as requiring a Biodiversity Management Plan	2020	2021	2022
Total number of sites (G4-EN11)	8	8	9
Total number of sites that have been identified as requiring a Biodiversity Management Plan ¹	3	3	4
Number of units that have a current Biodiversity Management Plan ²	1	1	2
Percentage of total sites assessed as in need of a Biodiversity Management Plan	33%	33%	50%

1. Aripuanã, Cerro Lindo, Morro Agudo and Três Marias

2. Aripuanã, Morro Agudo

Operations with closure plans MM10

Data/Year	2020	2021	2022
Total number of operations	13	10	11
Total number of operations that have closure plans	13	10	11
Percentage of operations that have closure plans	100%	100%	100%
Overall financial provision for closure (US\$)	265,945,782.44	217,269,515.66	291,758,033.86

GRI Content Index

The information in this GRI Content Index has been prepared in accordance with the GRI Standards.

GRI Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
GRI 2: General Disclosures 2021					
Standard disclosures					
The organization and its reporting practices					
	2-1 Organizational details	<u>6</u>		-	-
	2-2 Entities included in the organization's sustainability reporting	<u>65</u>	X	-	-
	2-3 Reporting period, frequency and contact point	<u>81</u>		-	-
	2-4 Restatements of information	The restatement information is at the bottom of the indicator that has changed, page <u>72</u>	X	-	-
	2-5 External assurance	<u>3, 81</u>	X	-	-
Activities and workers					
	2-6 Activities, value chain and other business relationships	<u>6, 50</u>		-	-
	2-7 Employees	<u>7, 36, 65</u>	X	6	8
	2-8 Workers who are not employees	<u>7, 36, 65</u>	X	6	8
Governance					
	2-9 Governance structure and composition	<u>19</u>		-	-
	2-10 Nomination and selection of the highest governance body	<u>20</u>		-	-
	2-11 Chairman of the highest governance body	<u>20</u>		-	-
	2-12 Role of the highest governance body in overseeing the management of impacts	<u>19</u>		-	-
	2-13 Delegation of responsibility for managing impacts	<u>20, 21</u>		-	-
	2-14 Highest governance body's role in sustainability reporting	<u>3</u>		-	-
	2-15 Conflicts of interests	<u>23, 25</u>	X	-	-
	2-16 Communicating critical concerns	<u>19</u>	X	-	-
	2-17 Collective knowledge of highest governance body	From 2023 on, the dissemination of the ESG theme at Nexa will follow a structured communication plan, aiming to reach all levels of the company,		-	-
	2-18 Evaluation of the performance of the highest governance body	<u>20</u>		-	-
	2-19 Remuneration policies	<u>42</u>		-	-
	2-20 Process for determining remuneration	<u>20</u>		-	-
	2-21 Annual total compensation ratio	This disclosure is provided in the Form 20-F report, in the Non-equity Incentive Plan Compensation section, available here .		-	-
GRI 2: General Disclosures 2021					

GRI Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
	Strategy, policies and practices				
	2-22 Statement on sustainable development strategy	<u>5</u>		-	-
	2-23 Policy commitments	<u>24</u>		10	16
	2-24 Embedding policy commitments	<u>24</u>	X	-	-
	2-25 Processes to remediate negative impacts	<u>23, 26</u>	X	-	-
	2-26 Mechanisms for seeking advice and raising concerns	<u>23</u>	X	10	16
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	<u>69, 72</u>	X	-	-
	2-28 Membership of associations	<u>49</u>		-	-
	Stakeholder engagement				
	2-29 Approach to stakeholder engagement	<u>49</u>	X	-	-
	2-30 Collective bargaining agreements				-
		In the year, 87.5% of employees were covered by collective bargaining agreements. Employees not covered by collective bargaining agreements follow local labor laws and corporate compensation policies.			
GRI 3: Material Topics 2021					
Standard disclosures					
	Disclosures about material topics				
GRI 3: Material Topics 2021	3-1 Process to determine material topics	<u>9</u>	X	-	-
	3-2 List of material topics	<u>9</u>	X	-	-
GRI 200 Economic Series Standards					
Standard disclosures					
	Economic performance				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>15</u>	X	-	-
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	<u>66</u>	X	-	2, 5, 8, 9
	Market presence				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>53</u>		-	-
GRI 202: Market presence 2016	202-1 Ratio of standard entry level wage by gender compared to local minimum wage			-	1, 5, 8
		Exceptionally, we had 1 employee who was hired in December with a salary below the minimum, but the values were corrected retroactively in January.			
	Indirect economic impacts				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>53</u>		-	-
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	<u>53, 54</u>		-	-
	Procurement practices				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>		-	-
GRI 204: Procurement practices 2016	204-1 Proportion of spending on locally-based suppliers	<u>50</u>		-	12

GRI Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
	Anti-corruption				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>	X	-	-
GRI 205: Anti-corruption 2016	205-2 Communication and training on anti-corruption policies and procedures	<u>22, 66</u>	X	10	16
	205-3 Confirmed incidents of corruption and actions taken	<u>22, 51</u>	X	10	16
	Anti-competitive behavior				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>	X	-	-
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<u>22</u>	X	10	8, 16, 17
GRI 300 Environmental Series Standards					
Standard disclosures					
	Materials				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>60</u>		-	-
GRI 301: Materials 2016	301-1 Materials used by weight or volume	<u>67</u>		7, 8	8, 12
	301-2 Recycled input materials used	<u>67</u>		8	8, 12
	Energy				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>62</u>	X	-	-
GRI 302: Energy 2016	302-1 Energy consumption within the organization	<u>64</u>	X	7, 8	7, 8, 12, 13
	302-2 Energy consumption outside of the organization	<u>64</u>	X	8	7, 8, 12, 13
	302-3 Energy intensity	<u>64</u>		8	7, 8, 12, 13
	302-4 Reduction of energy consumption	<u>62</u>		8	7, 8, 12, 13
	302-5 Reductions in energy requirements of products and services	<u>62</u>		8	7, 8, 12, 13
	Water and effluents				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>58</u>	X	-	-
GRI 303: Water 2018	303-1 Interactions with water as a shared resource	<u>58</u>		7, 8	6
	303-2 Management of water discharge related impacts	<u>58</u>		7, 8	6
	303-3 Water withdrawal	<u>58, 67</u>	X	8	6
	303-4 Water discharge	<u>68</u>	X	8	3, 6, 12, 14
	303-5 Water consumption	<u>59</u>		8	6
	Biodiversity				
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	<u>68</u>		7	13, 15
	Emissions				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>63</u>	X	-	-
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	<u>63</u>	X	7, 8	3, 12, 13, 14, 15
	305-2 Energy indirect (Scope 2) GHG emissions	<u>63</u>	X	7, 8	3, 12, 13, 14, 15
	305-3 Other indirect (Scope 3) GHG emissions	<u>63</u>	X	7, 8	3, 12, 13, 14, 15
	305-4 GHG emissions intensity	<u>63</u>		8	14, 15
	305-5 Reduction of GHG emissions	<u>63</u>		8	14, 15
	305-7 NOx, SOx, and other significant air emissions	<u>69</u>	X	-	-

GRI Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG	
	Waste					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>60</u>	X	-	-	
GRI 306: Waste 2020	306-3 Waste by type and disposal method	<u>60, 69</u>	X	8	3, 6, 12, 14, 15	
	306-5 Waste directed to disposal	<u>69</u>		8	3, 6, 12, 14, 15	
	Supplier environmental assessment					
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	<u>51</u>		8	-	
	308-2 Negative environmental impacts in the supply chain and actions taken	<u>50, 51</u>		8	-	
GRI 400 Social Series Standards						
Standard disclosures						
	Employment					
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	<u>36, 70</u>		6	5, 8	
	Occupational Health & Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>44</u>	X	-	-	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	<u>44</u>		-	8	
	403-2 Hazard identification, risk assessment, and incident investigation	<u>44</u>		-	8	
	403-3 Occupational health services	<u>45</u>		-	3,8	
	403-4 Worker participation, consultation, and communication on occupational health and safety	<u>45</u>		-		
	403-5 Worker training on occupational health and safety	<u>44</u>		-	8	
	403-6 Promotion of worker health	<u>45</u>		-	8	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<u>45</u>		-	8	
	403-8 Workers covered by an occupational health and safety management system	<u>44</u>		-	8	
	403-9 Work-related injuries	<u>44, 70</u>		X	-	8
	403-10 Work-related ill health	<u>45</u>		X	-	3
	Training and education					
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	<u>40</u>		6	4, 5, 8	
	404-3 Percentage of employees receiving regular performance and career development reviews			6	5, 8	
	Diversity and equal opportunity					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>37</u>		-	-	
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	<u>36, 71</u>		6	5, 8	
	405-2 Ratio of basic salary and remuneration of women to men	<u>71</u>		6	5, 8, 16	

In 2022, only Nexa's unit managers were assessed. All other employees had a focus on their Individual Development Plan (IDP) as part of their development, due to the 2022 context where the restructuring was carried out.

GRI Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
	Non-discrimination				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>		-	-
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	<u>23</u>		6	5, 8, 16
	Freedom of association and collective bargaining				
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<u>36</u>		5	8, 16
	Child Labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>	X	-	-
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor		X	5	8, 16
					No cases of child labor or risks to this issue were observed in our supplier base throughout the reporting period.
	Forced or compulsory labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>22</u>		-	-
GRI 409: Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor		X	4	8, 16
					No cases of forced or compulsory labor or risks on this subject were observed in our supplier base during the reporting period
	Human rights assessment				
GRI 412: Human rights assessment 2016	412-2 Employee training on human rights policies or procedures	<u>72</u>		1	-
	Local communities				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>53</u>	X	-	-
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	<u>53</u>	X	1	-
	Supplier social assessment				
GRI 414: Supplier social assessment 2016	414-1 New suppliers that were screened using social criteria	<u>51</u>		2	5, 8, 16
Mining Sector					
Standard disclosures					
	MM1 Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	<u>72</u>	X	-	-
	MM2 The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	<u>72</u>		-	-
	MM3 Total amounts of overburden, rock, tailings, and sludges and their associated risks	<u>60</u>	X	-	-
	MM5 Total number of operations taking place in or adjacent to indigenous peoples' territories, and number and percentage of operations or sites where there are formal agreements with indigenous peoples' communities	<u>55</u>	X	-	-
	MM6 Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples	<u>25</u>	X	-	-
	MM9 Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	<u>57</u>	X	-	-
	MM10 Number and percentage of operations with closure plans	<u>56, 72</u>	X	-	-

SASB Content Index

SASB Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
GHG Emissions	EM-MM-110a.1. Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	63 , 64	X	7,8	3, 12, 13, 14, 15
	EM-MM-110a.2. Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	63 , 64	X	7,8	3, 12, 13, 14, 15
Air quality	EM-MM-120a.1. Air emissions for the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	69	X	7,8	3, 12, 13, 14, 15
Energy & Fleet Fuel Management	EM-MM-130a.1. (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	64	X	7,8	7, 8, 12, 13
Water Management	EM-MM-140a.1. (1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	67	X	7,8	6
	EM-MM-140a.2. Number of incidents of non-compliance associated with water quality permits, standards, and regulations	There were no incidents of non-compliance related to the topic during 2022	X	7,8	3, 6
Waste & Hazardous Materials Management	EM-MM-150a.4. Total weight of non-mineral waste generated	60 , 69	X	7	12, 13, 14, 15
	EM-MM-150a.5. Total weight of waste rock generated	60 , 69	X	7	12, 13, 14, 15
	EM-MM-150a.6. Total weight of waste rock generated	60 , 69	X	7,8	14, 15
	EM-MM-150a.7. Total weight of hazardous waste generated	60 , 69	X	7,8	14, 15
	EM-MM-150a.8. Total weight of hazardous waste recycled	60 , 69	X	7,8	14, 15
	EM-MM-150a.9. Number of significant incidents associated with hazardous materials and waste management	There were no incidents of non-compliance related to the topic during 2022	X	7,8	14, 15
	EM-MM-150a.10. Description of waste and hazardous materials management policies and procedures for active and inactive operations	60	X	7,8	14, 15
Biodiversity Impacts	EM-MM-160a.1. Description of environmental management policies and practices for active sites	58		7	15
	EM-MM-160a.2. Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	67		7,8	15
	EM-MM-160a.3. Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	31		7,8	14, 15
Security, Human Rights & Rights of Indigenous Peoples	EM-MM-210a.1. Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Not applicable	X	1	16
	EM-MM-210a.2. Percentage of (1) proved and (2) probable reserves in or near indigenous land	31	X	1	16
	EM-MM-210a.3. Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	25	X	1, 2	16
Community relations	EM-MM-210b.1. Discussion of process to manage risks and opportunities associated with community rights and interests	36		1, 2	16
	EM-MM-210b.2. Number and duration of strikes and lockouts	36		-	-
Labor relations	EM-MM-310a.1. Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	In the year, 87.5% of employees were covered by collective bargaining agreements.		3	8
	EM-MM-310a.2. Number and duration of strikes and lockouts	36			

SASB Standard	Disclosure	Page or Omission	Assurance	Global Compact	SDG
Workforce health and safety	EM-MM-320a.1. (1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	<u>70</u>	X	3	8
Business ethics and transparency	EM-MM-510a.1. Description of the management system for prevention of corruption and bribery throughout the value chain	<u>24</u>	X	10	16
	EM-MM-510a.2. Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index			10	16
Tailings storage facilities management	EM-MM-540a.1. Tailings storage facility inventory table				
	EM-MM-540a.2. Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	<u>60</u>	X	7, 8	14, 15
	EM-MM-540a.3. Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	<u>57</u>	X	7, 8	14, 15
Activity metrics	EM-MM-000.A Production of (1) metal ores and (2) finished metal products	<u>17</u>		-	-
	EM-MM-000.B Total number of employees, percentage contractors	<u>7, 36</u>	X	-	8

TCFD Content Index

Norma TCFD	Conteúdo	Page or Omission	Assurance	Global Compact	SDG
Governance	a) Describe the board's oversight of climate-related risks and opportunities	<u>20, 62</u>		7, 8	13
	b) Describe management's role in assessing and managing climate-related risks and opportunities	<u>21, 62</u>		7, 8	13
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	<u>62</u>		7, 8	13
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	<u>62</u>		7, 8	13
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	<u>13</u>		7, 8	13
Risk management	a) Describe the organization's processes for identifying and assessing climate-related risks	<u>26</u>		7, 8	13
	b) Describe the organization's processes for managing climate-related risks	<u>26</u>		7, 8	13
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	<u>26</u>		7, 8	13
Metrics and targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	<u>26</u>		7, 8	13
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	<u>63</u>		7, 8	7, 13
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	<u>26</u>		7, 8	13

Independent auditor's limited assurance report on the non-financial information included in the 2022 Annual Report

To the Board of Directors and Stockholders
Nexa Recursos Minerais S.A.
 São Paulo - SP

Introduction

We have been engaged by Nexa Recursos Minerais S.A. ("Company" or "Nexa") to present our limited assurance report on the non-financial information included in the 2022 Annual Report of Nexa for the year ended December 31, 2022.

Our limited assurance does not cover prior-period information, or any other information disclosed together with the 2022 Annual Report, including any incorporated images, audio files or videos.

Responsibilities of the management of Nexa

The management of Nexa is responsible for:

- selecting or establishing adequate criteria for the preparation and presentation of the information included in the 2022 Annual Report;
- preparing the information in accordance with the criteria and guidelines of the Global Reporting Initiative (GRI-Standards), Sustainability Accounting Standards Board (SASB) and with the basis of preparation developed by the Company;
- designing, implementing and maintaining internal controls over the significant information for the preparation of the information included in the 2022 Annual Report, which is free from material misstatement, whether due to fraud or error.

Independent auditor's responsibility

Our responsibility is to express a conclusion on the non-financial information included in the 2022 Annual Report, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01 – Issuance of Assurance Reports related to Sustainability and Social Responsibility, issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that the auditor complies

with ethical requirements, independence requirements, and other responsibilities of these standards, including those regarding the application of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures on the compliance with ethical requirements, professional standards and relevant legal and regulatory requirements.

Moreover, the aforementioned standards require that the work be planned and performed to obtain limited assurance that the non-financial information included in the 2022 Annual Report, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of Nexa involved in the preparation of the information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information disclosed in the 2022 Annual Report taken as a whole might present significant misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation, materiality, and presentation of the information included in the 2022 Annual Report, other circumstances of the engagement and our analysis of the activities and processes associated with the significant information disclosed in the 2022 Annual Report in which significant misstatements might exist. The procedures comprised, among others:

- (a) planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the 2022 Annual Report
- (b) understanding the calculation methodology and the procedures adopted for the compilation of indicators through inquiries of the managers responsible for the preparation of the information;

- (c) applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the 2022 Annual Report; and
- (d) when non-financial data relate to financial indicators, comparing these indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the analysis of the compliance with the guidelines and criteria of the Global Reporting Initiative (GRI-Standards), Sustainability Accounting Standards Board (SASB) and the provisions established in the basis of preparation developed by the Company.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures applied in a limited assurance engagement vary in nature and timing and are less detailed than those applied in a reasonable assurance. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the level that would be obtained in a reasonable assurance engagement. If we had performed a reasonable assurance engagement, we might have identified other matters and possible misstatements in the information included in the 2022 Annual Report. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate these data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior periods nor future projections and goals.

The preparation and presentation of non-financial information and indicators followed the definitions of the basis of preparation developed by the Company and the guidelines of the Global Reporting Initiative (GRI-Standards), Sustainability Accounting Standards Board (SASB) and, therefore, the information included in the 2022 Annual Report does not have the objective of

providing assurance with regard to the compliance with social, economic, environmental or engineering laws and regulations. However, the aforementioned standards establish the presentation and disclosure of possible cases of non-compliance with such regulations when sanctions or significant fines are applied. Our assurance report should be read and understood in this context, inherent to the criteria selected and previously mentioned in this paragraph.

Conclusion

Based on these procedures performed, described herein, and on the evidence obtained, no matter has come to our attention that causes us to believe that the non-financial information included in the 2022 Annual Report of Nexa has not been prepared, in all material respects, in accordance with the criteria of the basis of preparation and guidelines of the Global Reporting Initiative (GRI-Standards) and Sustainability Accounting Standards Board (SASB).

São Paulo, May 9, 2023

PricewaterhouseCoopers Auditores Independentes Ltda.
 CRC 2SP000160/O-5

Maurício Colombari
 Contador CRC 1SP195838/O-3

(A free translation of the original in Portuguese)

Forward-looking statements

This report contains certain forward-looking information and forward-looking statements as defined in applicable securities laws (collectively referred to in this Earnings Release as “Forward-Looking statements”). All statements other than statements of historical fact are forward-looking statements. The words “believe,” “will,” “may,” “may have,” “would,” “estimate,” “continues,” “anticipates,” “intends,” “plans,” “expects,” “budget,” “scheduled,” “forecasts” and similar words are intended to identify estimates and forward looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of NEXA to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements include estimates, forecasts, and statements as to management’s expectations with respect to the business and operations of the Company and mining production our growth strategy, the impact of applicable laws and regulations, future zinc and other metal prices, smelting sales, CAPEX, expenses related to exploration and project development, estimation of mineral reserves and resources, mine life and our financial liquidity.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Statements concerning future production costs or volumes are based on numerous assumptions of management regarding operating matters and on assumptions that demand for products develops as anticipated, that customers and other counterparties perform their contractual obligations, that operating and capital plans will not be disrupted by issues such as mechanical failure, unavailability of parts and supplies, labor disturbances, interruption in transportation or utilities, adverse weather conditions, and that there are no material unanticipated variations in the cost of energy or supplies, among other assumptions.

We assume no obligation to update forward-looking statements except as required under securities laws. Further information concerning risks and uncertainties associated with these forward-looking statements and our business can be found in our public disclosures filed under our profile on [Sedar](#) and on [Edgar](#).

Corporate information

Board of Directors

Jaime Ardila – Chairman
Daniella Dimitrov
Diego Hernandez
Eduardo Borges de Andrade Filho
Edward Ruiz Gianfranco Castagnola
Jane Sadowsky
João Henrique Batista de Souza Schmidt
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For the information verification and analysis for the 2022 year, we appreciate the help and collaboration of the managers and other Nexa Resources employees participating in the corporate and industrial domains. Comments, suggestions, doubts or criticisms regarding content, as well as our operations and initiatives in Brazil and abroad, can be emailed to: nexa@nexaresources.com

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Management Team

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CFO and Senior Vice President of Finance and Group
Jones Aparecido Belther
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Leonardo Nunes Coelho
Senior Vice President of Mining Operations
Marcio Godoy
Senior Vice President of Technical Services and Projects
Mauro Boletta
Senior Vice President of Smelting Operations and Commercial
Gustavo Cicilini
Vice President of Human Resources and Corporate Affairs
Renata Penna
Vice President of Legal and Governance

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Photos: Banco de Imagens Nexa

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