

2023

Annual Report

nexa





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About this report

GRI 2-2, 2-3

This 2023 Annual Report of Nexa Resources S.A. presents our work, initiatives and outcomes in the environmental, social and governance (ESG) spheres for the period from January 01, 2023 to December 31, 2023.

We are agents of transformation and development, aligned with our purpose of **integrating mining into an ever-changing world as an opportunity for sustainable development.**

Thus, we organized the chapters of this report according to our four strategic pillars - Performance, Growth, Culture, and ESG. Each chapter contains information of interest to our employees, communities, suppliers, shareholders, and other stakeholders, about the ESG pillars and our material topics, which were reviewed in 2023 (see more in the chapter We are Nexa).

This report has been prepared in accordance with the Standards of the International Integrated Reporting Framework, the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB and recommendations from the Task Force on Climate-Related Financial Disclosure (TCFD). Financial disclosures are consistent with International Financial Reporting Standards (IFRS).

The content used in the preparation of this report can be viewed on our website. The information presented here has undergone external assurance by Bureau Veritas Brazil. The report was submitted

to our Sustainability Committee and approved by the Board of Directors.

The consolidated financial statements and the independent audit report are available for download on our dedicated investor relations websites (ri.nexaresources.com and riperu.nexaresources.com), on the Results Center page. The previous edition of this report, for the year 2022, was published in May 2023 and is available here. **GRI 2-14**

To enhance and enrich your reading experience, at the beginning of each chapter and throughout the text, we provide references to relevant disclosures, standards, pillars, or the capital underpinning value creation.

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



Making our mining more sustainable than ever



In 2023, Nexa embarked on a journey of progress, opportunities and challenges. Every day, we strive to maintain high levels of operational performance, a safe and healthy environment, co-creating value for all our stakeholders: communities, employees, partners and investors. This journey is underpinned on the premise of reconciling productive financial stability with high standards of sustainability and safety to all employees and contractors.

Our ESG governance continued to advance steadily, with significant developments in strategy across

all units and for all employees. This requires acknowledgment of our teams' engagement, including the leadership at the forefront of initiatives and projects, present in Brazil and Peru, in pursuit of fulfilling our environmental and social commitments.

As one of the top five global zinc producers, Nexa is committed to its role as an agent to help improve people's lives and reduce or mitigate environmental impacts. The company has been demonstrating its ability to innovate in projects and invest in technological solutions aimed at emission reduction, including

spearheading certain movements within the mineral sector.

Nexa remains effectively committed to seeking alternatives to the challenges arising from external environments and those inherent to the mining and smelting segment. The year 2023 provided us with important learnings in this regard, which will be crucial for addressing potential future adversities.

We continue to believe and invest in the countries where we operate, supported by a solid and mature governance, engaged and motivated

teams, with a transparent and ethical communication with host communities.

And we therefore remain committed to our purpose of **integrating mining into an ever-changing world as an opportunity for sustainable development.**

We hope you find our report useful and informative..

Jaime Ardila
Chairman of the Board of Directors



A journey of overcoming challenges

Despite an atypical and challenging year, marked by abrupt drops in international zinc prices and high interest rates aimed at curbing inflation, we responded swiftly to minimize impacts, implementing necessary measures to prevent more severe losses.

We achieved significant operational improvements and gained consistency in our operations through processes review in several areas and fronts, which resulted in considerable cost optimization and eco-efficiency.

Internally, we faced operational challenges in certain assets, requiring additional efforts and resources to end the year close to expectations. For instance, our Cerro Lindo unit was significantly affected by rainfall, disrupting the mine's production plan for a period. However, due to our teams dedication and efforts, we successfully recovered production levels.

Our newest operation in Aripuanã continued its ramp-up, presenting countless operational challenges and providing valuable insights regarding people and community relations. In 2024, we aim to achieve full capacity.

We tackled challenges head-on through concrete actions, enhancing our maturity, safety and reliability levels. In 2024, we will remain committed to advancing projects that we believe will elevate Nexa to a new level, while steadfastly upholding sustainability across all processes. We emerge from this year strengthened and resilient.

Once again, I extend my gratitude to the Board of Directors for their collaboration and to all our employees for their unwavering dedication, which is essential to our mission of *mining that changes with the world*.

Thank you!

Ignacio Rosado
Chief Executive Officer

Nexa is a company determined to evolve and overcome challenges. This was the predominant message of 2023, resonating with each of us individually and as a team.

Throughout the year, we advanced our ESG strategy by undertaking decarbonization projects, promoting diversity, and addressing climate change. We reinforced our organizational culture, strengthening business strategic pillars and pursuing the safety of our people. We also made significant progress in managing social matters in Peru and Brazil, aiming to strengthen our relationships with host communities.

About Nexa

GRI 2-1, 2-6

We stand proudly among the top five zinc producers in the world, a testament to our nearly seven decades of experience in developing and operating mining and smelting assets across Latin America. In addition to metallic zinc and its by-products, we produce silver, gold, copper and lead concentrates. Nexa Resources S.A. was formed from the merger of Brazilian and Peruvian operations in 2017 and is part of the conglomerate of investees of Votorantim S.A., our main shareholder, holding 64.68% of the total capital.

At the heart of our operations lies zinc, a cornerstone element with myriad applications crucial for energy transition, fostering a low-carbon economy, and enhancing quality of life. Because of its versatility, the zinc we produce is used in applications ranging from agriculture to aerospace manufacturing. Moreover, the copper concentrate we produce is used in diverse sectors, from infrastructure development to battery production.

Since 2017, our shares have been traded on the New York Stock Exchange (NYSE), while Nexa Peru's shares are traded on the Lima Stock Exchange in Peru (BVL). We are headquartered in Luxembourg City (Luxembourg) and we maintain administrative offices in São Paulo (Brazil) and Lima (Peru). We also have sales offices in Brazil, Peru, the U.S. and Luxembourg.

We operate six polymetallic mines, with three located in Peru (Cerro Lindo, El Porvenir and Atacocha), and 3 mines in Brazil, 2 of them in the state of Minas Gerais (Vazante e Morro Agudo), and the newest in the state of Mato Grosso (Aripuanã), also in Brazil. In 2023, approximately 13 million tons were treated in total at our mines.

We also operate three zinc smelters (refineries): Cajamarquilla in Peru, and Três Marias and Juiz de Fora in Brazil, which produce metallic zinc, zinc oxide and several co-products. Furthermore, we have ongoing mineral exploration Programs in Peru, Brazil, and Namibia.

Our Cajamarquilla operation is among the seven largest zinc smelters in the world by volume produced and is the largest in the Americas. In 2023, we sold 589,800 metric tons of products—including 555,900 metric tons of metallic zinc and 33,900 metric tons of zinc oxide—to customers worldwide in various sectors such as transportation, energy, agriculture, healthcare, and consumer goods.

Mining that changes with the world

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





What truly distinguishes us in the market is the seamless integration of our mine and smelter operations. At the heart of this integration lies the processing of zinc concentrate from the Vazante and Morro Agudo mines at the Três Marias smelter, while the Juiz de Fora smelter processes concentrate and secondary feed materials (such as scrap and electric arc furnace dust) to produce zinc. With consolidation efforts underway in Aripuanã, our newly integrated mining assets and smelters are poised to enhance operational synergy further. Notably, the majority of zinc concentrate produced from the Cerro Lindo, El Porvenir and Atacocha mines is processed at the Cajamarquilla smelter.

Net revenue was US\$2.8 billion and Adjusted EBITDA was US\$ 391.2 million in 2023. At year-end, our workforce comprised 5,770 direct employees (excluding interns and apprentices). Additionally, we engaged 8,784 permanent contractors and 8,946 temporary contractors. This diverse workforce is primarily dedicated to pivotal roles in technology operating our mines and smelters as well deployment and automation, engineering, and mineral exploration.



Nexa by the numbers

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



US\$ 2.8 billion
in consolidated net revenue



5,770 employees
engaged

US\$ 391.2 million
in adjusted EBITDA



US\$ 309 million
in CAPEX investment

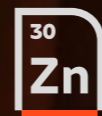


8,784
permanents
contractors



US\$ 39 million
invested in mineral exploration

8,946
temporary
contractors



4.3%
of global zinc
production





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



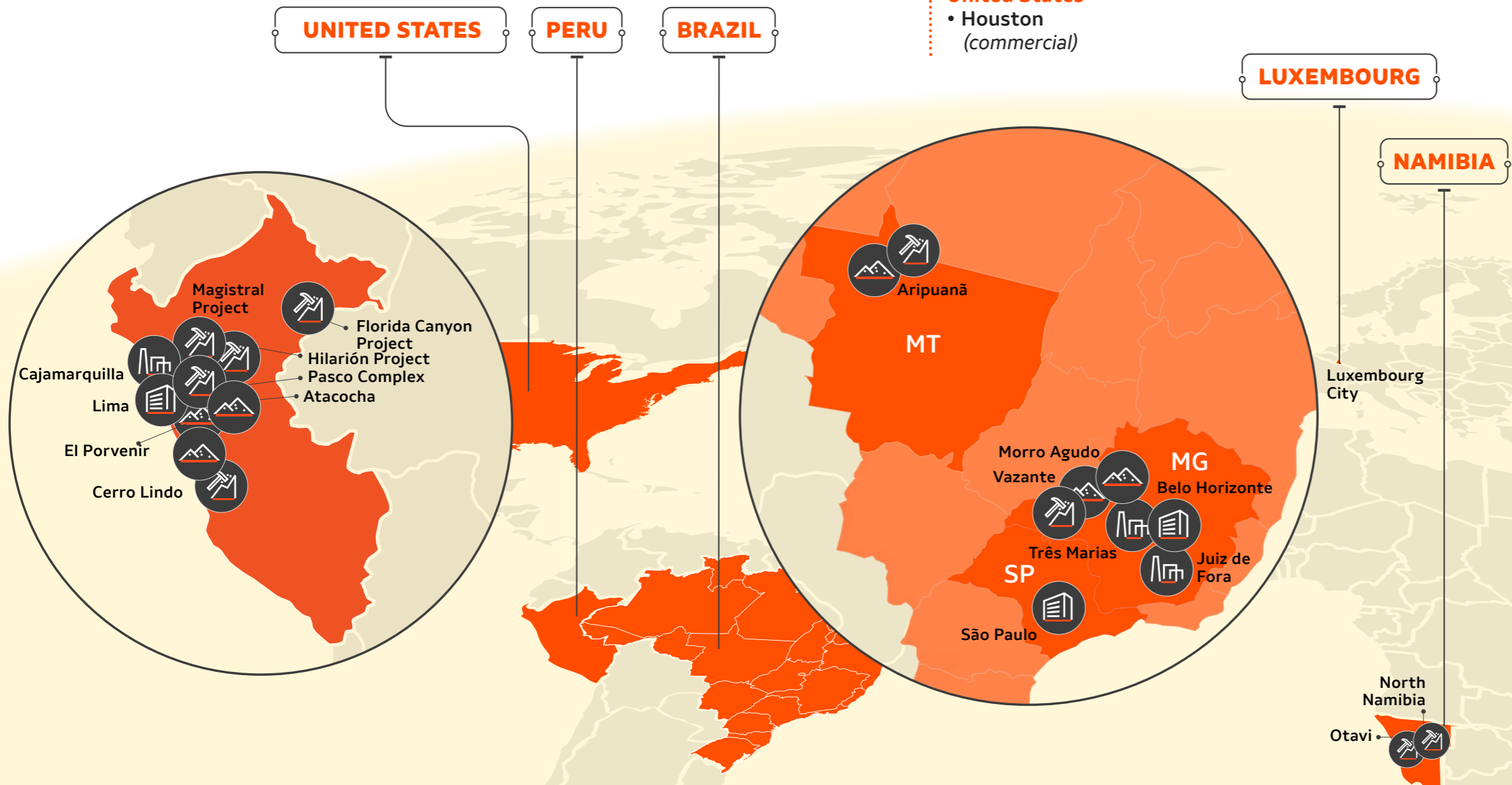
Offices

- Luxembourg**
 - Luxembourg City (headquarters and head & sales office)
- Brazil**
 - São Paulo (head & sales office),
 - Belo Horizonte (administrative)
- Peru**
 - Lima (head & sales office)
- United States**
 - Houston (commercial)



Mineral exploration programs

- Brazil**
 - Aripuanã
 - Vazante
- Peru**
 - Cerro Lindo
 - Pasco Complex
 - Florida Canyon
 - Magistral
 - Hilarión
- Namibia**
 - North Namibia
 - Otavi





Materiality

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

In 2023, we made progress in revising our materiality matrix. This process, which occurs every four years or as necessary, was conducted by an external consultancy firm, adhering closely to the standards outlined by prominent organizations such as the Global Reporting Initiative (GRI), the International Council on Mining and Metals (ICMM), Ecovadis, the Down Jones Sustainability Index (DJSI), and the Sustainability Accounting Standards Board (SASB), among others. Through this rigorous evaluation, we ensured alignment with industry best practices and stakeholders' evolving expectations, further enhancing our commitment to transparency and sustainability.

Materiality is the process of identifying relevant economic, environmental and/or social topics that impact an organization and significantly influence the evaluations and decisions of its stakeholders. These material topics are pivotal in fostering value creation and effectively managing risks and opportunities. Furthermore, they aid in delineating the limits of the subjects addressed in this report, ensuring a focused and comprehensive approach to communication.



The materiality **review engaged** over 600 participants, representing a diverse array of stakeholders including employees, clients, shareholders, investors, suppliers, government entities, sectoral agencies and host communities. Through a combination of online surveys, interviews and 30 discussion rounds held in Brazil and Peru, valuable insights were gathered. Following this inclusive process, the number of material topics was reduced from 12 to 8, reflecting Nexa's ongoing streamlining. This reduction was achieved by assessing the current and potential impacts of each topic, considering both environmental and financial impacts (double materiality), in accordance with our values and 2030 Commitments and in line with the United Nations' 2030 Agenda for Sustainable Development Goals (SDGs).

In total, 7 topics were deemed priority and 1 was identified as cross-cutting:



3 environmental

- 1** Climate change
- 2** Water resource stewardship
- 3** Management of dams, tailings and waste



1 cross-cutting

- 8** Innovation.



3 social

- 4** Social Management
- 5** Health, safety and well-being
- 6** Diversity



1 governance

- 7** Governance and reputation





Nexa's material topics
2023 review

MATERIAL TOPIC	WHY IT IS MATERIAL	BOUNDARY OF IMPACT	WHO IS INVOLVED
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 seek improvements in our performance in using clean energies in reducing greenhouse gas (GHG) emissions across our operations and throughout the broader value chain. These efforts have supported local policies and initiatives to tackle climate change.	All operations	Nexa, employees, suppliers and host communities
WATER RESOURCE MANAGEMENT	We hold water resources in high regard and uphold a steadfast commitment to responsible water resource management. Both our mining and smelter operations are highly reliant on water. We therefore aim to use less of it, enhancing levels of reuse, and ensuring that the water returned to the environment meets the stringent effluent standards established in our geographies.	All operations	Nexa, employees, suppliers and host communities
DAMS, TAILINGS AND WASTE MANAGEMENT	<p>Our dam management policy entails advanced methods and cutting-edge technologies aimed at ensuring the stability and integrity of our structures. We invest in studies for alternatives to the current model of tailings and waste disposal and are committed to safety beyond regulatory requirements.</p> <p>We seek to reduce the generation of mining and metallurgical waste, complying with applicable local legislation, in order to co-create a positive legacy for society. Furthermore, we are developing circular-economy solutions to turn tailings and waste into innovative products for use in other segments, diverting them from disposal. We are also striving to meet the guidelines of the Global Industry Standard on Tailings Management.</p>	All operations	Nexa, employees, environmental agencies, suppliers and host communities



Nexa's material topics
2023 review

<p>SOCIAL MANAGEMENT</p>	<p>Our operations are designed to co-create a positive legacy within the communities where we operate, and we maintain open and continuous dialogue with host communities, sustaining our social license to operate. Our approach revolves around four key pillars: income generation, water management, primary and vocational education and our social license to operate.</p>	<p>All operations</p>	<p>Nexa, employees, suppliers and host communities</p>
<p>HEALTH, SAFETY AND WELL-BEING</p>	<p>We invest continuously in building a health and safety culture among our employees and contractors, and in improving training—especially on high-risk activities—and working conditions. We promote quality of life and mental health support, and actively encourage our employees to strike a positive work-life balance.</p>	<p>All operations</p>	<p>Nexa, employees, suppliers and host communities</p>
<p>DIVERSITY</p>	<p>We recognize that achieving diversity is currently a challenge within the mining industry. We strive to develop a more diverse and inclusive environment where every individual regardless of background or identity, feels recognized, valued, listened to and empowered.</p>	<p>All operations</p>	<p>Nexa, employees, suppliers and host communities</p>
<p>GOVERNANCE AND REPUTATION</p>	<p>We aspire to change with the world, and as an important part of this scenario, we want to build the future of the company focusing our efforts on sustainability in our practices, people, and the environment, while building close and transparent relationship with our stakeholders. To provide support we are committed to upholding the highest standards of ethics and integrity company-wide through our Compliance Program, risk management oversight, ensured by a solid governance.</p>	<p>All operations</p>	<p>Nexa, employees, suppliers, customers, shareholders, trade associations, governments and host communities</p>
<p>INNOVATION</p>	<p>Enabler of strategic growth and performance, decarbonizes our operations, optimizes processes, and enhances our security. In innovation, we perceive technological trends and create paradigms for all areas.</p>	<p>All operations</p>	<p>Nexa, employees, suppliers, customers, governments and host communities</p>



Business strategy

Base metals are essential for people's lives and the future. They are also indispensable for the energy transition and the development of a low-carbon economy.

At Nexa, we are deeply connected with the evolving needs and trends of the world. Our aspiration is to evolve into a more resilient and agile company creating long-term value for our stakeholders.

In this journey, the year 2023 marks the evolution of our cultural transformation. Our purpose continues to be *integrating mining into an ever-changing world as an opportunity for sustainable development* across four pillars:



Cash and value creation

We are focused on generating sustainable and consistent cash flows through operational excellence, diligent cost management, and prudent capital allocation



Culture and Performance

We are driven by productivity, responsibility, inspiring leadership, and simplicity, fostering the creation of a responsive and resilient organization.



Growth

Focus on optimize current operations and increasing the share of copper in our portfolio. Our strategy involves evaluating both organic (project pipeline) and inorganic (mergers and acquisitions) options at different stages of maturity.



ESG

Assertiveness, effectiveness, and risk mitigation guide our reliable deliveries and effective communication.



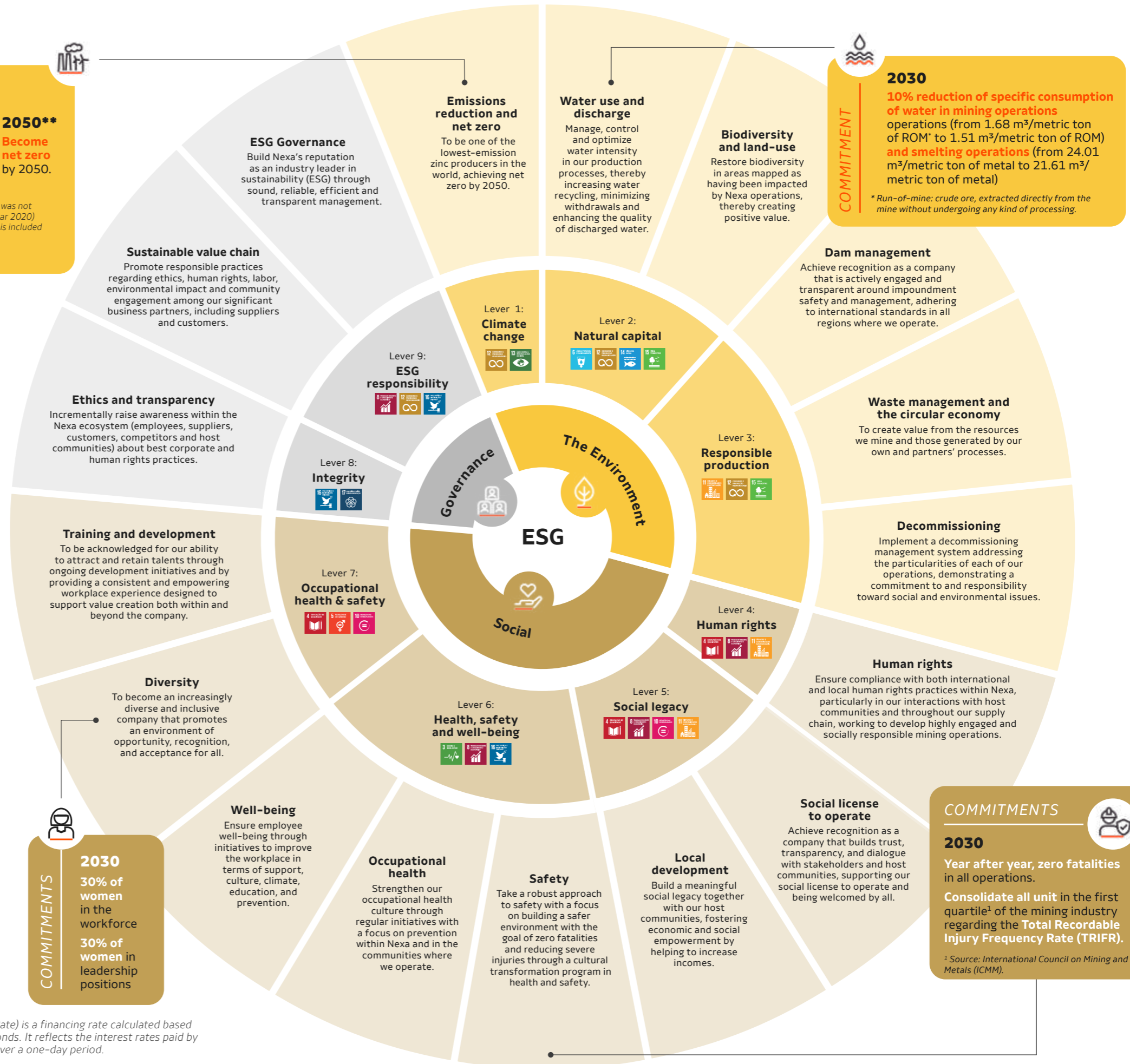
ESG strategy

The ESG pillars (environmental, social and governance) are embedded in our strategy, guiding our actions and decisions. In 2023, in addition to reviewing our materiality, we made significant progress on corporate ESG goals spanning four areas: safety, water, diversity and decarbonization.

A tangible sign of the market's recognition of our commitments occurred in October 2023 when we established a Revolving Credit Facility valued at US\$ 320 million. This facility has a 5-year term with an initial interest rate of Term SOFR + 1.60%. The applicable margin is subject to variations based on the annual emissions reduction indicator, reinforcing Nexa's commitment to achieving net zero by 2050.

The outcomes of the public goals as of 2023 are detailed in this report, within the chapters dedicated to each topic. Additionally we provide a specific file (table) with the public targets outcome and historical data in [our website](#).

*Term SOFR: Overnight or SOFR (Secured Overnight Financing Rate) is a financing rate calculated based on the interest rates of transactions secured by U.S. Treasury bonds. It reflects the interest rates paid by financial institutions for loans secured by the U.S. government over a one-day period.



Commitments to society



Global Compact

We have been signatories to the United Nations (UN) initiative since 2017. The Global Compact mobilizes the global business community to embrace ten principles representing fundamental values in human rights, labor relations, the environment and anti-corruption.

Sustainable Development Goals (SDGs)

Since 2017, we have actively supported the global agenda consisting 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)

This is an international, non-profit organization that assesses and recognizes business initiatives to minimize and manage the environmental impacts from their operations. Since 2019, we have participated in the water security questionnaire, and since 2020, we have responded to the climate change questionnaire. In 2023, we

were upgraded from C to B rating in the climate change category, while maintaining a consistent B rating in water security.

Forum on Business and LGBTI+ Rights

In 2021, we signed the letter of accession and the ten commitments of the Forum on Business and LGBTI+ Rights.

Women in Mining (WIM Brazil and WIM Peru)

In 2020, we signed their letter of commitment to expand and strengthen the representation of women in the mining industry, fostering a dynamic business environment that not only attracts and retains women employees, but also harnesses their unique strengths and recognizes their significant contributions.

WOB Check Services Label

In 2021, we proudly attained the Women on Board (WOB) certification, recognizing our commitment to gender diversity by having women represented on our Board of Directors. WOB is an independent initiative dedicated to recognizing, valuing, and advancing corporate environments where women play integral roles on boards of directors or advisory boards.



Awards and recognition in 2023

Regional Water Dialog Congress 2023 - Cepal/UN

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

Companies of the Year Award

In 2023, we were among the largest companies of the year in the Mineral Sector, recognized for our outstanding social governance initiatives through the people training program implemented in Aripuanã (MT), at the 40th edition of the award, organized by Brasil Mineral magazine.

Top Companies for Communications with Journalists 2023 Award

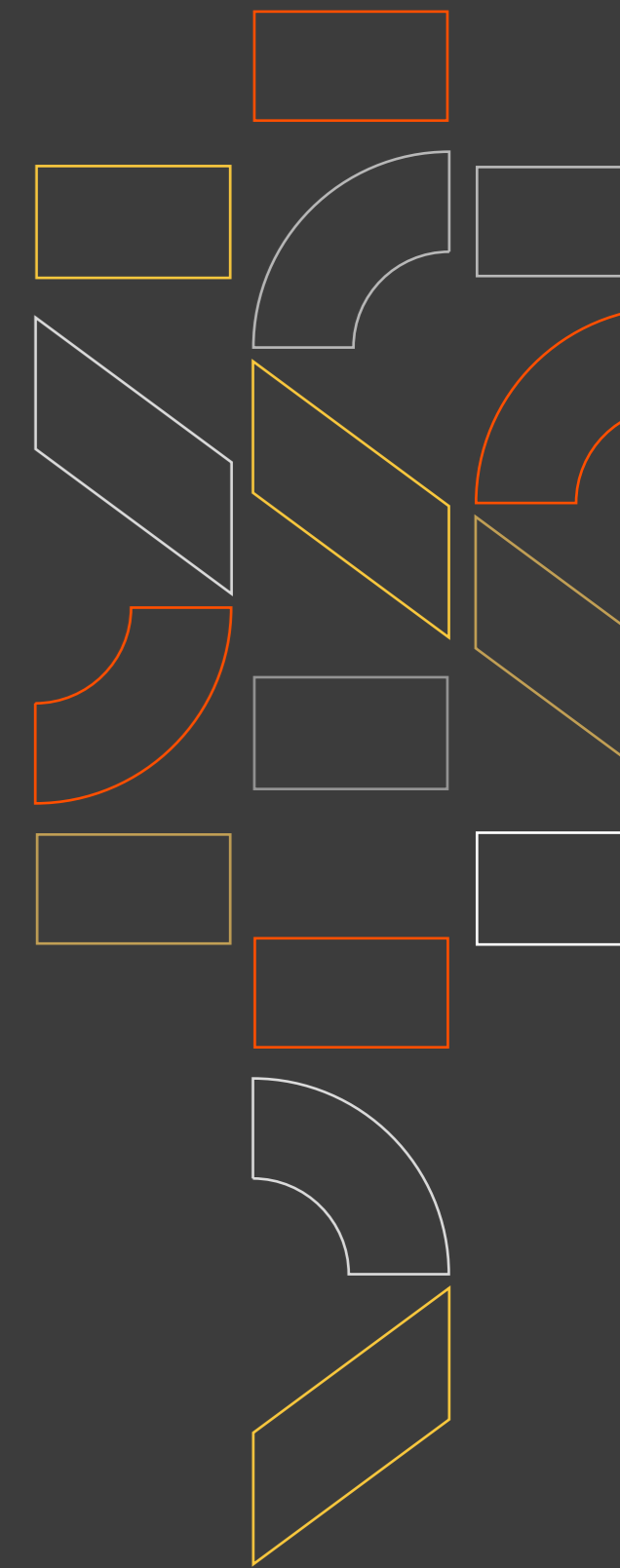
We were recognized as one of the three top companies in the Mining category in Brazil.

Valor 1000 Largest Companies 2023

We came in 81st among the top Brazilian companies.

Valor Inovação Brasil 2023

We ranked among the top 150 most innovative companies in Brazil.





- **ESG pillar relating to this chapter: G (governance)**
- **Financial capital**
- **Material topic addressed in this chapter: Governance and reputation**

Nexa's journey in 2023 was marked by its intensity. With significant steps forward in ESG, we faced challenges that tested our resilience against operational obstacles and an adverse external environment, such as zinc price volatility and the slowdown of the Chinese economy, in addition to inflationary pressure on costs.

Despite the impacts suffered at the Cerro Lindo operation due to an unusual volume of rainfall causing river overflow in Peru, we finished the year with solid results.

To achieve this, we implemented various productivity actions and measures, such as shifting 20% of our volume from the domestic to the external market and reducing sales to certain higher-risk sectors. We focused on cost containment and reviewed our investment plan, aiming to generate working capital and advance our ESG Strategy.

Financial performance 2023

Adjusted EBITDA
(in US\$ million)



Capex
(in million US\$)



Net revenue
(in US\$ billion)



Mining and processing

The year 2023 witnessed significant safety advancements in mining. We effectively managed critical risks and responded well to high-potential events. Our operations maintained high production levels while we worked focused on cost management.

The year began with a positive outlook due to the high price of zinc. However, following the first quarter, there was a nearly 20% drop in the benchmark price, prompting us to reassess and adapt to varying circumstances and market conditions. Throughout the year, the price began to recover but did not reach previous references.

The mines followed the production plan closely, reporting operational stability even after the change in the production plan of Cerro Lindo, enabling improvements and cost reductions.

In terms of costs, we committed to offsetting the increase in inflation by controlling operational costs, reviewing input prices and work scopes. This initiative was conducted in partnership with McKinsey & Company in some mining units, Cerro Lindo, Pasco and Aripuanã.





Atacocha (Peru)

An underground and open-pit polymetallic mine, located in the region of Pasco, Atacocha began operations in 1938 and stands as Nexa's oldest mine. In 2023, the Atacocha mine produced 8,193 metric tons of zinc, 11,116 metric tons of lead, 1,399,681 ounces of silver and 7,559 ounces of gold. During the year, two stoppages occurred due to community issues, occurring in January and June/July, resulting in impacts. Following the reestablishing dialogue, we reviewed our commitments and revitalized the agenda with the communities, fostering a more proactive environment. We quickly restored production volumes, maintained continuous operation, achieved significant cost reductions and improved metal recovery rates. Since 2020, the mine's higher-cost underground operations have

been under care and maintenance as part of our ongoing efforts to reduce costs and enhance operational efficiency.

Cerro Lindo (Peru)

In operation since 2007 in the Ica region, Cerro Lindo (Peru) is the largest polymetallic underground mine in Peru and ranks among the 30 largest zinc mines in the world. In 2023, it produced 78,209 metric tons of zinc, 28,588 metric tons of copper, 13,042 metric tons of lead, 3,540,975 ounces of silver, and 3,418 ounces of gold. However, in early 2023, heavy rains caused significant disruption, leading to a total suspension of production and interruptions lasting over 12 days. Despite the impact on the mine's production plan throughout the year, we managed to rebound production through intense effort of our teams. We closed the year within our budget, achieving significant cost reductions and stabilization. This event prompted a critical analysis, focusing on operational improvements to prevent future occurrences.

El Porvenir (Peru)

El Porvenir is an underground polymetallic mine located in the Pasco region, in operation since 1949. Last year, it produced 55,825 metric tons of zinc, 355 metric tons of copper, 24,937 metric tons of lead, 4,270,463 ounces of silver and 8,696 ounces of gold.

Aripuanã (Brazil)

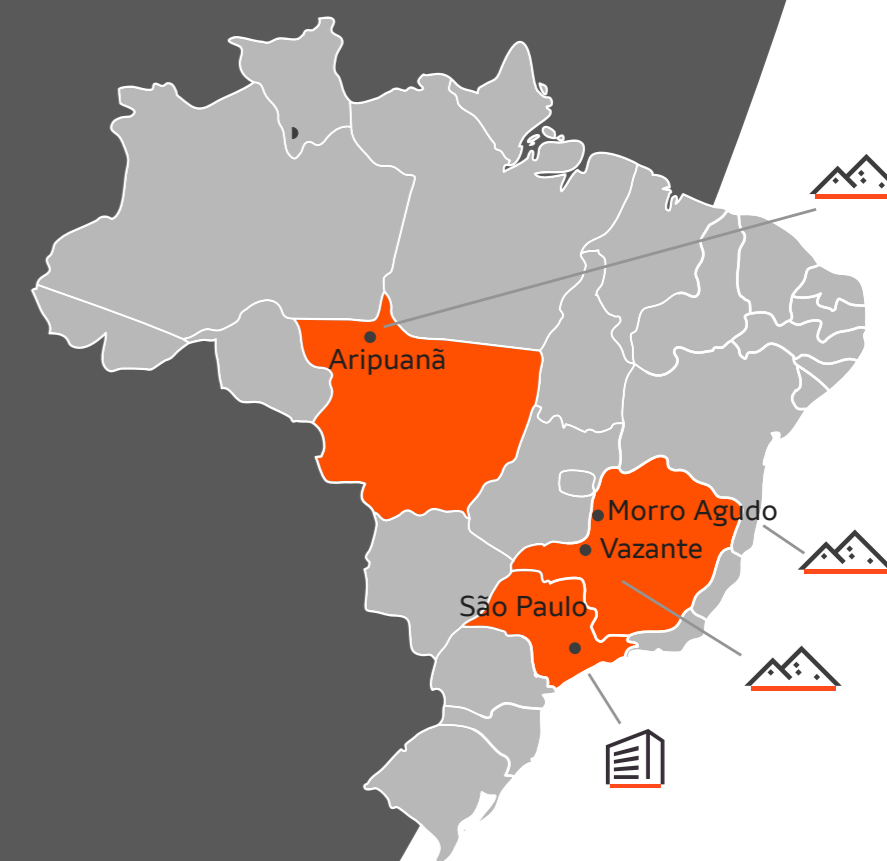
This is Nexa's newest underground polymetallic mine located in Mato Grosso State. Commercial production started in the fourth quarter of 2022. However, due to certain operational challenges, we conducted a diagnosis assessment in March 2023 with an external engineering firm to evaluate planning adjustments throughout the year. In April, we implemented a task force to stabilize the operation and implement additional adjustments to enhance asset reliability. We also advanced in social projects and community engagements initiatives. With the ramp-up revision, the expectation is to achieve nameplate capacity by mid-2024. Last year it produced 22,099 metric tons of zinc, 4,443 metric tons of copper, 6,331 metric tons of lead, 513,916 ounces of silver and 7,954 ounces of gold.

Morro Agudo (Brazil)

Morro Agudo is an underground polymetallic mine located in Minas Gerais state, in operation since 1988. In 2023, the mine produced 23,167 metric tons of zinc and 8,320 metric tons of lead. On March 2024 we have announced the reduction on mining activities in Morro Agudo and on April we signed of a definitive agreement to divest the unit. This movement reinforces Nexa's strategy focusing on a portfolio optimization process, in line with a disciplined capital allocation framework. More details on the referred [press release](#).

Vazante (Brazil)

Vazante is an open-pit and underground polymetallic mine located in Minas Gerais state, renewed as one of the 15 largest zinc mines in the world. It began operating in 1969. In 2023, this mine produced 145,662 metric tons of zinc, 1,449 metric tons of lead and 575,636 ounces of silver. The production exceeded that of 2022, in line with the Três Marias capacity.

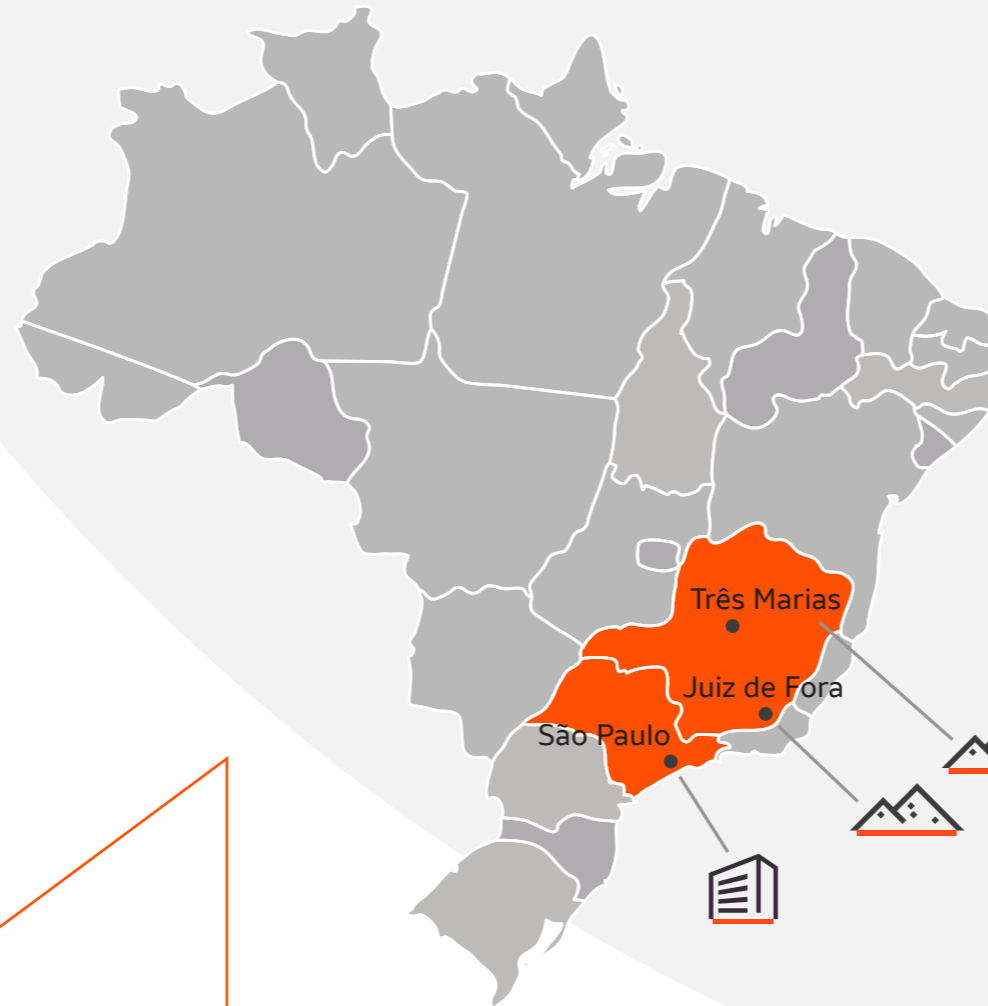




Smelting

In 2023, we produced 590,000 tons of metallic zinc and zinc oxide. Despite challenges posed by the sluggish recovery of the Chinese economy leading a decline in premiums, the performance of our smelters remained resilient. This resilience was supported by sustained demand for our products.

Our adaptability allowed us to maintain the operation's resilience, especially in the second half of the year, resulting in a balanced operation within its budget. The integration between mines and smelters, currently nearing 45%, stands as one of our main competitive advantages and is expected to further increase once Aripuanã is fully operational.



Três Marias (Brazil)

A zinc refinery located in Minas Gerais state, operating since 1969. In 2023, it produced 148,354 metric tons of zinc metal and 34,000 metric tons of zinc oxide. We conducted waste filtration tests with changes from "wet" to "dry" waste disposal in a very short time frame, performing better than expected. Although this was just a test at first, we ended the year with about 95% of the generated waste filtered and deposited dry, above the 90% forecast. The success in implementing this system extended the life of the waste reservoirs, allowing us to calmly plan the next steps for this system.

Juiz de Fora (Brazil)

A zinc refinery located in Minas Gerais state, operating since 1980. It produced 82,147 tons of metallic zinc in 2023, achieving a stable operational year and within the planned framework.



Cajamarquilla (Peru)

This is the largest zinc smelter in Latin America and the fifth largest in the world located in the district of Lurigancho-Chosica, in Lima. Operations began in 1981, and in 2023 the plant produced 323,059 metric tons of zinc metal. The byproduct sulfuric acid, with a volume of approximately 500,000 tons, contributed to the operation's results.

Total production in 2023
SASB EM-MM-000.A

MINING AND PROCESSING

13.8 million
metric tons of processed ore
4.2 million (Brazil)
9.6 million (Peru)

333.2 thousand
metric tons of zinc
191.0 thousand (Brazil)
142.2 thousand (Peru)

65.2 thousand
metric tons of lead
16.1 thousand (Brazil)
49.1 thousand (Peru)

33.4 thousand
metric tons of copper
4.4 thousand (Brazil)
29.0 thousand (Peru)

10.3 million
ounces of silver

27.6 thousand
ounces of gold

SMELTING PRODUCTION

553.6 thousand
metric tons of zinc metal
230.5 thousand (Brazil)
323.1 thousand (Peru)

34.0 thousand
metric tons of zinc oxide
(Brazil)





Commercial

In 2023, we maintained our commercial strategy of sustaining our positioning among the largest mining companies in South America with a global presence, demonstrating maturity and resilience amidst fluctuating international mineral prices and significant cost pressures.

Despite these headwinds, we continued to serve our clients through the commercial management of our offices in Brazil, Peru, the United States and Luxembourg.

We focus remained on optimizing cash flow and enhancing capital allocation efficiency, seeking to maximize the performance of our assets, with cost reduction as our priority.

As a result of an underwhelming global demand, especially from China, and an increase in inventories, zinc prices on the London Metal Exchange (LME) registered a downturn of 24% compared to 2022, with a year average price of US\$ 2,647/t.

Despite temporary disruptions to some of our operations due to external events, we achieved solid results and implemented appropriate measures to maintain a healthy bottom line.

Governance

GRI 2-9, 2-12

We are committed to upholding the standards of governance and have established a robust governance structure that facilitates our global operations in a sustainable, ethical and transparent manner. Our policies, which are set by the Board of Directors, encompass principles of Integrity, Transparency, Equity, Accountability and Corporate Responsibility. These principles serve as guiding values for our internal activities and our interactions with stakeholders.

Our governance framework comprises key components including the General Shareholders' Meeting, the Board of Directors, advisory committees, and the Executive Board.

General Shareholders' Meeting

As the company's ultimate decision-making body, it has the authority to amend the Bylaws, elect or remove members of the Board of Directors and sign off accounts, among other matters.

Board of Directors (BoD)

Nexa's highest governance body, responsible for the decision-making process regarding the company's

strategic direction. In addition to overseeing the Executive Board, it serves as the principal guardian of our principles, values, core purpose and governance system.

The BoD has 4 committees, including the Sustainability and Capital Project Committee to which it delegated the oversight of Nexa's sustainability strategy.

Pursuant to our Bylaws, the BoD is composed of 5 to 11 members, of whom at least 3 must be independent, in accordance with the rules of the stock exchanges where we are listed.

In 2023, Mr. Hilmar Rode was elected as a new member of the BoD, also serving on the Sustainability and Projects Committee. Currently, the BoD has 10 members (2 women and 8 men) from diverse nationalities, 5 of whom are independent. We aim to ensure diversity within our highest governance body, and no member holds an executive function at Nexa. All members receive compensation.

Throughout 2023, the BoD convened 8 times and made written resolutions on specific matters. No significant concerns were raised through grievance mechanisms during this period. **GRI 2-16**





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

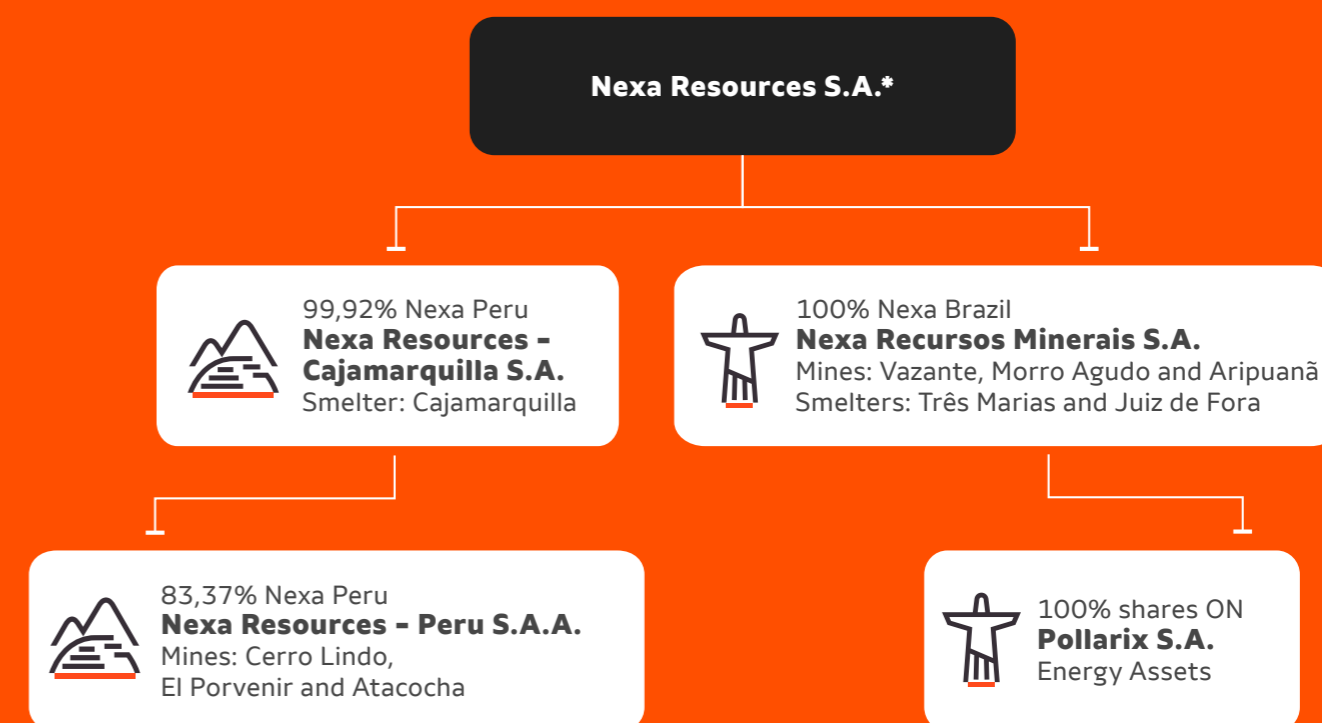
Member
Member of the Finance Committee

Hilmar Rode

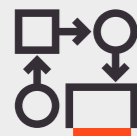
Independent member
Member of the Sustainability and Capital Projects Committee

Further information about the BoD's duties and members' biographies is available [here](#).

ORGANIZATIONAL STRUCTURE



¹ 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.



COMMITTEES OF THE BOARD

Committees of the board play a crucial role in advising the Board of Directors and overseeing the performance of specific topics. Each committee is composed of members of the Board of Directors and convenes at least on a quarterly basis. The committees follow charters which establish, among other things, topics, duties, reporting to the BoD and rules of procedure.



Audit Committee

Monitors the quality and integrity of the financial statements, the effectiveness of internal control systems and risk management, and oversees compliance framework on ethics and business conduct. It comprises three independent members of the BoD.

Finance Committee

Monitors the company's financial structure, provides recommendations on management strategy and capital structure, and approves transactions in line with the Company's Bylaws. It consists of three members of the BoD, including one independent member.

Compensation, Nominating and Governance Committee

Responsible for evaluating compensation structures, recommending candidates for CEO and BoD positions, assessing the performance of the BoD, CEO, and each of the BoD committees, and formulating guidelines and corporate governance principles. It comprises four members of the BoD, two of whom are independent. **GRI 2-10, 2-18, 2-20**

Sustainability and Capital Projects Committee

Ensures the implementation of safe and sustainable business practices related to environmental, social, health, safety and waste management issues. It plays a critical role in overseeing the company's interaction with host communities and other stakeholders in its operational areas and locations where projects are planned. Moreover, the committee supervises the disclosure of mineral resources and reserves in operational assets, as well as

the project portfolio and the ESG Strategy. It comprises four Board members, including two independents.

In 2023, the ESG Strategy, announced the previous year, evolved through the company's materiality review process. The Sustainability and Capital Projects Committee, among other stakeholders, was consulted regarding the relevance of the topics; perceptions of impact, risks, and opportunities related to the topics; and the influence that the topics may have on significant decisions. The Committee maintains a fixed agenda on community engagement. **GRI 2-13 TCFD Ga**

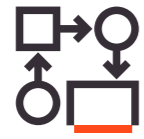
GOVERNANCE STRUCTURE¹



¹ At Nexa, the CEO does not hold the position of Chairman of the Board of Directors. **GRI 2-11**



EXECUTIVE OFFICERS



Our Executive Officers comprises executives responsible for managing key business areas and fostering relationships with stakeholders. Additionally, it is tasked with developing and implementing our strategic and budget plans based on guidance provided by the Board of Directors (BoD).

The group consists of seven vice-presidents, alongside the CEO, who convene regularly to monitor performance, address sustainability, financial, and operational matters, and formulate tactical plans for their respective teams.

In March 2023, Mrs. Renata Penna, formerly a General Manager, was

appointed Vice-President of Legal and Governance, thus joining the Executive Board.

Members of the Executive Officers participate in Board of Directors meetings to discuss relevant topics within their areas of expertise. They receive periodic reports on environmental indicators and key risks identified on the Company's risk matrix, including those related to climate change.

ESG targets are linked to the bonus of all members eligible for this compensation since 2022. The set of ESG targets represented in 2023, 20% of the annual bonus of executives and other managerial or professional levels.



Ignacio Rosado
President and Chief Executive Officer

José Carlos del Valle
Senior Vice President of Finance and Group Chief Financial Officer

Jones Aparecido Belther
Senior Vice-President, Mineral Exploration and Business Development

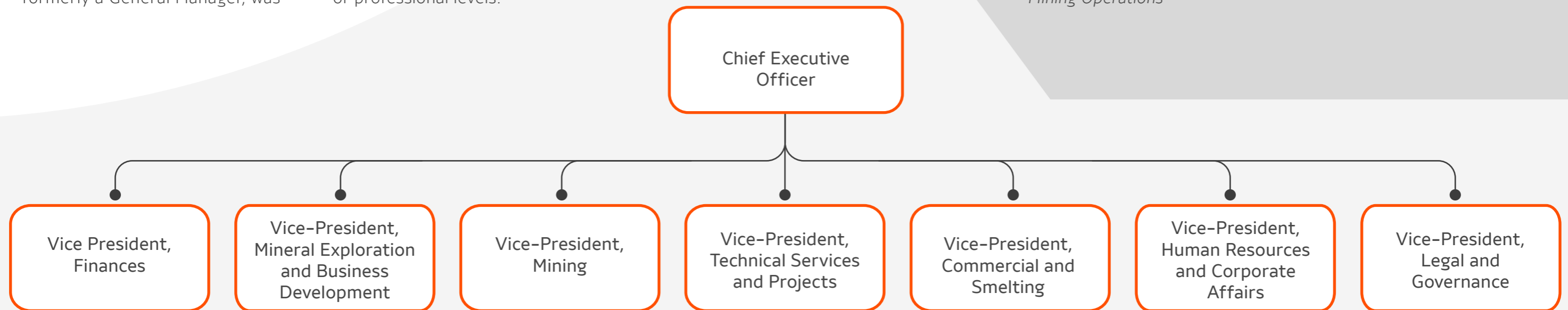
Leonardo Nunes Coelho
Senior Vice President of Mining Operations

Marcio Godoy
Senior Vice-President, Technical Services and Projects

Mauro Boletta
Senior Vice President of Smelting Operations and Commercial

Gustavo Cicilini
Vice-President, Human Resources and Corporate Affairs

Renata Penna
Vice-President of Legal and Governance





Ethics and compliance

GRI 3-3

We uphold the highest standards of ethics and integrity, human rights, transparency, governance, and socio-environmental responsibility. To ensure adherence to these principles, we maintain a Compliance Program that undergoes periodically review, outlining the expected conduct for all employees, service providers, and stakeholders.

The Board of Directors and the Audit Committee play a pivotal role

in championing and enforcing the program, as well as taking disciplinary action to address any violations.

In 2023, there were no instances in which Nexa or its employees were involved in judicial investigations and/or prosecutions related to corruption. Additionally, there were no legal actions taken against the company for anti-competitive behavior, anti-trust violations, or monopolistic practices.

GRI 205-3, 206-1

Training and communication

In 2023, we continued our efforts to promote Ethics & Transparency by providing training sessions and to disseminating our Code of Conduct through e-learning courses attended by employees at all levels of the organization. Attendance was confirmed via electronic signatures. Since the launch of our new Code of Conduct until December 31, 2023, a total of 4,731 employees underwent training in our Anti-Corruption Policy, which represents 76% of our workforce. This included 3,365 employees in Brazil, 1,349 in Peru, and 17 in other countries (offices located in the United States and Luxembourg).

Furthermore, in 2022, we initiated training sessions for our suppliers on our Code of Conduct for Suppliers. In 2023, a total of 16 suppliers underwent training through our e-learning platform. Additionally, our business partners have access to the portal for training sessions on our Code of Conduct for Suppliers. GRI 205-2

Our Compliance Portal serves as a communication channel for compliance-related matters, where employees can use online forms for documenting and seeking approval for various transactions such as donations, sponsorship, gifts and hospitality, conflicts of interest and interactions with government officials.

In cases where an employee discloses a conflict of interest, an assessment is carried out by Compliance. If the conflict of interests is confirmed, mitigation measures are agreed upon with the employee's manager and the Human Resources (HR) department. In 2023, we identified approximately 1,234 conflicts of interest, the majority of which were assessed.





Ethics Hotline

GRI 2-25, 2-26

This is our channel for receiving and investigating any potential violations of our Code of Conduct or any other Nexa policies or procedures or laws or regulations, including reports on financial crimes, fraud, corruption, discrimination, harassment, and other ethical violations, while also addressing any inquiries individuals may have.

Managed by a specialized independent firm, the Ethics Hotline screens incoming reports to ensure impartially and address any conflicts of interest. Upon receipt, reports undergo reviews to understand the case, followed by interviews with relevant parties. Subsequently, a thorough investigation is conducted to determine the substantiation of the report, leading disciplinary action or guidance.

The Ethics Hotline operates with commitment to confidentiality and the anonymity, ensuring a safe environment for all individuals accessing the channel.

Oversight of the process is provided by an Executive Committee of Conduct as well as the Audit Committee, advising the Board of Directors and the executive team, and by senior management with support from the Internal Audit, Compliance and Legal departments. Additionally, board members complete annual D&O questionnaire, disclosing potential conflicts of interest.

GRI 2-15



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

- * **Brazil: 0800-800-1245 (Portuguese)**
- * **Peru: 0800-70888 (Spanish)**
- * **USA and Canada: 1-800-723-8163 (English)**
- * **Luxembourg: 800-22-925 (French)**

In 2023, the channel received a total of 224 complaints related to discrimination. Among these, 69 complaints were considered unfounded, while 94 were deemed valid, and 61 were still under analysis at the end of the year.

For the valid complaints, appropriate sanctions were applied in accordance with the company's policies and procedures.

GRI 406-1



Code of Conduct

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

The Code of Conduct is one of the pillars of our Compliance Program, embodying the core values of the Votorantim Group and providing guidance for employee conduct and interactions with stakeholders.

The Code was updated in 2021, and is accessible to all Nexa employees and contractors, accompanied by online training sessions covering both the Code of Conduct and Anti-Corruption Policy. The use of electronic signatures enhances the reliability to the process, while printed versions are available for those unable to access it online.

Our [Code of Conduct](#) addresses a range of topics, including diversity, environmental, social, and governance (ESG) practices, as well as compliance with emerging laws such as the Brazilian General Data Protection Regulation (BR GDPR). We also provide the [Code of Conduct for Suppliers](#) and the [Code of Conduct for Customers](#), outlining expectations for third parties in their interactions with Nexa.

Click here to read our key policies¹.

GRI 2-23

- * [Code of Conduct](#)
- * [Compliance Policy](#)
- * [Antitrust Policy](#)
- * [Anti-Corruption Policy](#)
- * [Money Laundering & Terrorist Financing Prevention](#)
- * [Disclosures Policy](#)
- * [Insider Trading Policy](#)
- * [Integrated Management Policy](#)
- * [Information Security Policy](#)



¹All policies go through the approval of Directors and the relevant departments.



Human rights

SASB EM-MM-210A.3

We joined the Global Compact in 2017. We have prioritized human rights as an integral aspect of strategic management approach. To this end, we have developed and implemented e-learning on related topics, such as conflict of interest, donations, government relations, and financing of terrorism, ensuring that all our employees receive training on these critical issues.

In our pursuit of best practices and accountability to our host communities, we have established due diligence processes and Social Golden Rules, aimed at identifying and gather relevant information before initiating any commercial relationships, facilitating the evaluation and classification of integrity risks.

Our operations situated in regions where no conflicts have been documented according to the criteria of the Uppsala Conflict Data Program (UCDP) and the Organization for Economic Co-operation and Development (OCDE). Prioritize obtaining free, prior and informed consent from native communities in the areas where we operate, adhering to international conventions (OIT 169) and each country's legislation. **GRI MM6**

In 2023, we continued our prevention and monitoring activities, alongside settlements to mitigate conflicts. We also continued the operation of our sexual harassment committees across all of our Brazilian sites.

Social Golden Rules

The Social Golden Rules include a Community Engagement Procedure providing guidance on interactions with communities to ensure they are conducted with respect and dignity; they also prohibit any form of discrimination based on factors such as race, religion, belief system, sexual orientation, or any other aspect. Among the requirements in our Social Golden Rules is a zero-tolerance stance towards:

- * Sexual abuse or sexual exploitation of children and adolescents
- * Violence against women or domestic violence
- * Child labor
- * Slave or forced labor



Risk management

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

Nexa's corporate risk management (ERM) practice aligns with the guidelines of ISO 31000 2018 and COSO ERM 2017 and is internally formalized by the risk management policy and manual, which undergo periodic updating.

An annual risk reassessment process is conducted, whereupon the risk matrix is reviewed and updated, and changes can be made at any time by the risk owners. We include strategic, financial, operational, and regulatory risks in our management process.

All risks are monitored directly by the relevant departments. They are assessed in terms of impacts (financial, environmental, health and safety, social, legal, and reputational) and probability, which indicate the risk classification. Action plans are developed to address high or critical risks.

In 2023, as part of the action plans designed to control risks, Nexa overhauled its entire *Know Your Client* process, as well as the policies and rules for formalization and management of its commercial contracts, with the purpose of mitigating risks related to the background and conduct of its customers. Nexa has also reviewed and enhanced its compliance program and internal controls related to third parties. These initiatives were motivated by Nexa's cooperation with an investigation conducted by the Minas Gerais state authorities into alleged misconducted practices of some of our former clients in relation to commercial taxes and value added tax ("VAT"), as previously disclosed in our annual report on Form 20-F.



Also in 2023, we enhanced the mapping of the climate risk matrix by considering specific business impact criteria and the level of exposure to risks, and we carried out an exercise to identify biodiversity risks and opportunities. The assessment was carried out according to Nexa's ERM methodology, taking into account the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD) and the Task Force on Nature-related Financial Disclosures (TNFD). **TCFD GRc**

In addition to assessing business risks, we evaluate operational risks following the best practices

established by the International Council on Mining and Smelting, which divides risk management into layers. In the first half of 2023, the layered approach was applied in mining and, subsequently, in smelting throughout the second half of the year. Critical controls were also established to prevent prioritized undesired events from occurring.

Accurate risk assessment and measurement provide Nexa with greater confidence in decision-making, potentially increasing our earning potential while controlling exposure levels.

Investor relations

Our efforts are driven by fostering close relationships with shareholders and potential investors, as well as maintaining transparency with the capital market on a daily basis. Among Nexa's initiatives to exchange best practices, notable efforts include introducing new formats for reporting results, engaging with rating agencies, and monitoring market peers. All information is regularly updated on our investor [webpage](#).

In 2023, we furthered these relationships through discussions with about 180 investors and all relevant analysts. Additionally, our Senior Vice-President of Finance, José Carlos del Valle, participated in an end-of-year interview with Floor Talk from NYSE TV. In the interview, he summarized the business challenges faced in 2023 and highlighted future prospects, emphasizing our ESG actions and commitments. The video is available [here](#) (in English, with Portuguese subtitles).





- **ESG pillar relating to this chapter: G (governance)**
- **Manufactured capital**
- **Material topic addressed in this chapter: Governance and reputation**

In 2023, our focus remained on executing our growth strategy, making significant progress on technical studies into the integration of the El Porvenir and Atacocha mines in Pasco, the addition of reserves in Aripuanã, and the extension of mineralized bodies in Vazante and Cerro Lindo, aiming to drive our organic growth. We continue to allocate a substantial part

of our budget to extending the life of our existing mines.

Although still in the ramp-up phase, Aripuanã, located in Mato Grosso state, was operating above 75% of its nominal capacity at the beginning of the third quarter of 2023. The mine is expected to reach nameplate capacity in 2024.

2023

Investments

Other operating expenses

US\$ 39.6 million

Mineral exploration and Aripuanã infill drilling
US\$ 35.6 million

Mining rights
US\$ 2.8 million

Business development
US\$ 1.2 million

Drilling program

Mineral exploration

85,199 meters

Greenfield
19,291 meters

Brownfield
65,908 meters
(including Aripuanã infill drilling)

GROWTH

GRI 3-3

We work on the development of brownfield and greenfield projects in Brazil, Peru and Namibia to ensure the maximum sustainable exploitation of each mine, in an ongoing process of evaluation and growth.

Brownfield projects are those adjacent to existing mines we already operate, aimed at extending their life of mine. Our brownfield projects include:

Cerro Lindo (Peru)

The mineral exploration work focuses on defining the mineral potential, with the goal of identifying zones with economic mineralization and thus extending its life of mine. During the year, underground drilling was carried out focusing on the ends of the near mine OB8 ore body, in addition to surface drilling in Pucasalla and extensions and in Patahuasi Millay. The results of these drilling activities indicated OB8 extended into the southern end of the mine, while surface drilling found evidence of sulfide zinc.

Vazante (Brazil)

Our goal is to extend the mineralization of the already known bodies of the mine and find new regional opportunities to further extend the life of mine. In 2023, we assessed the extension of the ore bodies Extremo Norte (ENO) and Sucuri Norte and conducted regional exploratory drilling in the Vazante Sul trend. The results confirmed the continuity of the mineralized system and opened up new exploration opportunities at greater depths.



Pasco Complex (Peru)

In 2023, we continued the studies on extending the useful life of the two operations (Atacocha and El Porvenir). The drilling program had already confirmed the extensions in both targets, with emphasis on the Integration Zone, a project we will focus on in 2024 and involves workstreams in mine planning, integration of the underground mines, increased production capacity, infrastructure improvements and tailings storage capacity, among other things, with robust potential for our organic growth. It also demonstrates potential to unlock value for Nexa through economies of scale, cost improvements and extended the life of our assets. We are continuing the studies and environmental licenses needed for this purpose.

Aripuanã (Brazil)

This is our newest mine and is in ramp-up phase. The brownfield program in 2023 had two main objectives: to expand the reserves of the Babaçu ore body, converting inferred resources into indicated/measured with infill drilling, and to assess extension opportunities. The drilling strategy at Babaçu had excellent results, expanding the ore bodies with a good fit to previous models. The results continuously intercepted high-grade mineralization, which will further extend the mine's useful life.



Greenfield projects are initiatives aimed at exploring new geographical areas to identify potential mining sites and define materiality for new projects, contributing to our long-term growth strategy. Our ongoing projects currently are:

Hilarión

Located in the Ancash region (Peru), Hilarión is one of the largest zinc projects under exploration in Latin America, made up of vertical tabular ore bodies containing sulfide zinc and lead, as well as silver and copper deposits in lesser amounts. It is in the mineral exploration stage and, in 2023, we focused on community engagement, in order to strengthen partnerships and sustainable relationships. The exploratory activities focused on identifying the continuity of the deposit's mineralization southeast ward, at the Chaupijanca target, as well as searching for zones with higher copper content at the El Padrino target. The initial results confirmed the existence of zinc-mineralized zones in the southeast trend.

Florida Canyon

Located in the Peruvian Amazon region, this 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. In 2023, we focused on projects supporting local infrastructure, such as maintaining and opening access routes to accommodate future drilling campaigns, aiming to reduce logistical costs.

Namibia

A copper project occupying 560,000 hectares located in the country's Central North region, this 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 2023, a new diamond drilling program was conducted to identify new mineralized zones in priority targets between the Otavi and North Namibia projects.

Magistral

It is an open pit copper project with molybdenum concentrate as a by-product, in the Ancash region (Peru). The project is currently at the feasibility assessment stage and its modified environment license is in the process of being considered.



In addition to these projects, – our programs conduct early geological research to develop and expand our portfolio, both in Brazil and Peru, aiming to identify surface evidence of prospective zones of interest and define mineralized zones with regional exploratory drilling programs. This work is ongoing and fundamental to bring materiality to some prospects in future years.

Aligned with our continuous portfolio review aimed at optimizing capital allocation, certain projects will be reassessed in 2024. In Peru, among the factors that are constantly analyzed is the high cost of fees for maintaining mining rights, which over the years can generate render part of the areas unsustainable.



Resources & reserves

We emphasize that our operations in both Brazil and Peru have no proven or probable reserves located within indigenous lands or protected areas. **SASB EM-MM-160a.3**

In Peru, especially in the city of Pasco, there are no references to zones of indigenous/original peoples, as the mine's production predates the creation of Law 29.785 of 2011, which designated the region as a zone of original peoples. **SASB EM-MM-210a.2**

Class ^{1 2}	Tonnage (Mt)	Zinc (%)	Copper (%)	Silver (%)	Lead (%)	Gold (g/t)	Moly (%)	Zinc (kt)	Copper (kt)	Silver (kt)	Lead (kt)	Gold (koz)	Moly (kt)
Reserves (Zinc Mines)³													
Proven	45.6	3.2	0.4	30.2	0.6	0.0	0.0	1,471.2	188.5	44,286	252.5	72.3	0.0
Probable	64.8	3.9	0.2	41.1	1.1	0.1	0.0	2,560.2	141.6	85,623	684.2	190.2	0.0
Total	110.4	3.7	0.3	36.6	0.8	0.1	0.0	4,031.4	330.1	129,910	936.7	262.5	0.0
Resources (Zinc Mines and Projects)⁴													
Measured	24.1	3.3	0.1	30.3	0.7	0.0	0.0	801.2	34.6	23,465	158.7	15.1	0.0
Indicated	68.1	3.5	0.1	24.4	0.7	0.0	0.0	2,376.7	40.3	53,536	454.6	75.0	0.0
Total	92.2	3.5	0.1	26.0	0.7	0.0	0.0	3,177.9	74.9	77,001	613.3	90.1	0.0
Inferred	143.2	4.8	0.2	35.3	0.9	0.1	0.0	6,897.0	222.7	162,700	1,250.6	547.7	0.0
Resources (Copper Projects)⁵													
Measured	98.7		0.5	2.8			0.1		513.2	8,884			49.3
Indicated	90.7		0.4	2.8			0.0		389.9	8,163			36.3
Total	189.4		0.5	2.8			0.1		903.1	17,047			85.6
Inferred	11.1		0.4	3.1			0.1		42.0	1,103			5.5

¹ 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.

² 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>.

³ Mineral reserves include the following properties: Cerro Lindo, El Porvenir, Atacocha Underground, Atacocha Open Pit Vazante and Aripuanã.

⁴ Mineral resources include the following mines: Cerro Lindo, El Porvenir, Atacocha Underground, Atacocha Open Pit, Vazante, Aripuanã, and Morro Agudo; the following zinc projects: Hilarión and Florida Canyon.

⁵ The following copper projects: Magistral.



Business diversification

Our M&A (Mergers and Acquisitions) department continuously seeks potential opportunities in the market, aligned with our growth strategy. Our primary focus at the moment is on assets in operation, particularly copper or polymetallic projects and operations in attractive jurisdictions that could add value to Nexa's portfolio.

We are also evaluating our current project portfolio to identify opportunities for accelerating or enhancing their development through partnerships with other companies.

Similarly, for projects that are classified as non-priority due to size, return or execution timing, we are assessing alternatives for divestment.

CULTURE

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

The year 2023 demonstrated that the consolidation of our cultural transformation, which began in 2018, is progressing in the right direction.

While there are still some steps needed on this cultural journey to further evolve our mindset at all levels and make clearer commitments to generate a more competitive business, we are proud to say that the process advanced positively in 2023.

Nexa culture

Launched in 2022, our Culture drivers aiming to simplify and increasingly direct our behaviors.

Independence with responsibility

We are committed to our promises and accountable for our outcomes. Our goal is to consistently deliver top-quality results while meeting cost and deadline requirements, 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).

Openness and trust

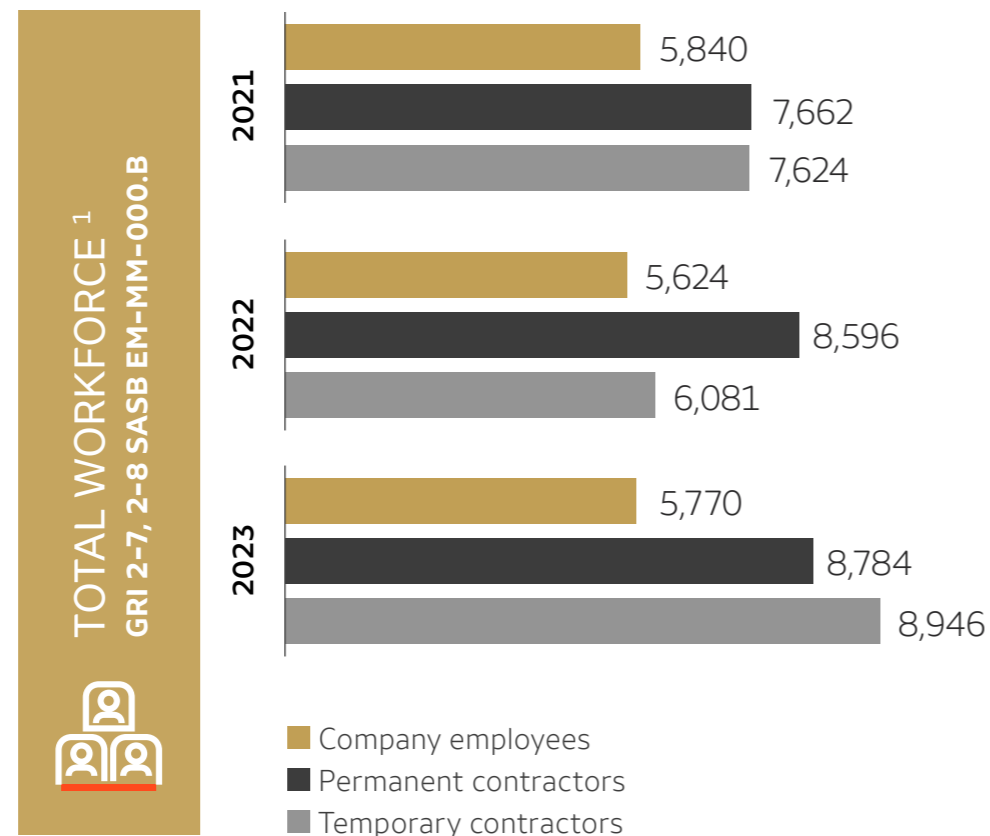
We foster an environment where diverse opinions and fresh ideas are welcomed. We value collective learning, openly sharing our mistakes and best practices with confidence and transparency.



Nexa professionals

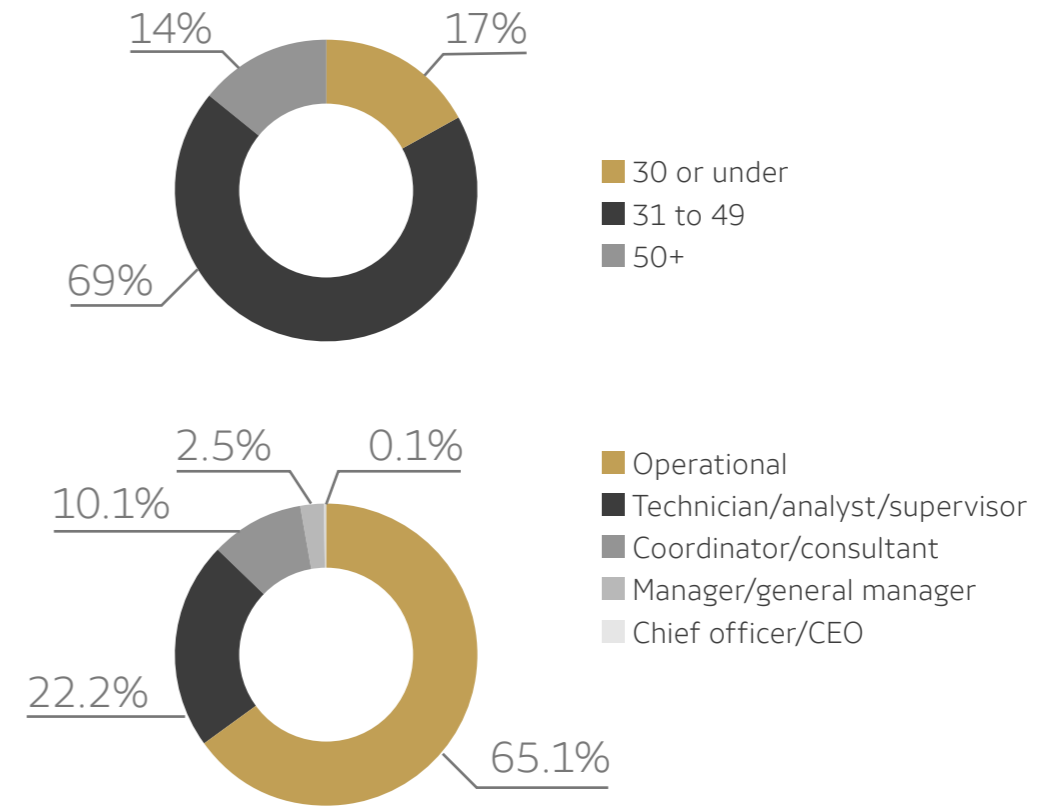
At the end of 2023, our workforce comprised 5,770 direct employees, with 3,658 in Brazil, 2,094 in Peru, and 18 elsewhere. We also had 8,784 permanent contractors providing services. Given the nature of our operations, a significant portion of our workforce is outsourced, especially in Peru **GRI 2-7**

In 2023, we hired 968 new employees. Women represented 17,3% of our workforce, while 13,7% of our employees were over the age of 50. Our total headcount for the year, excluding interns and apprentices, increased by 2.7% compared to 2022. **GRI 401-1, 405-1**



¹The consolidation of employee and third-party data takes into account the closing value of the last month of the reporting period.

WORKFORCE BY AGE GROUP



Union negotiations

Our union master plan serves as a guiding framework for our representatives in their interactions with unions and is composed of internal indicators that enable us to act proactively in this relationship, mitigating conflicts and strikes. In 2023, 87% of Nexa employees were covered by collective bargaining agreements. **GRI 2-30, SASB EM-MM-310a.1**

Last year, there were no strikes among employees or contractors working in the Brazil units. In Peru, the Atacocha unit halted its operations for 15 days due to an illegal blockade of access to the mine carried out by the Machcan community, which impacted the production of the operation by 0.2%.¹ **SASB EM-MM 210b.2, 310a.2**

¹To read more, access [Press Release](#).



Plurality GRI 3-3

We remain steadfast in our commitment to fostering diversity within our company, striving to create an inclusive environment that embraces individuals from all backgrounds. We believe that the mining industry can and should be more diverse, and our journey towards a more inclusive organizational culture involves investing in a plurality of ideas, backgrounds, races, ethnicities, genders, orientations and generations. This commitment also extends to individuals with disabilities, as we work towards cultivating a workplace that continually enhances employee satisfaction.

We are working on three motivators to achieve this:

For individuals: creating an inclusive and emotionally safe environment fosters a sense of belonging, encourages creativity, and promotes innovation.

For the company: being plural is a strategic pillar that expands the potential of our teams and multiplies our business results.

For society: our practices and results contribute to a more ethical, humane, and equitable society.

In 2023, Nexa underwent a restructuring of the department responsible for diversity and inclusion initiatives, which spearheaded various programs throughout the year. Committees were established at each operation with their own governance structures, and we launched a comprehensive guidebook, in addition to reinforcing compliance training and promoting the use of our ethics hotlines. Another important initiative was the integration of the Compliance and Plurality departments to address the harassment issues more effectively.

Plurality Week

We held the second edition of this event with special programming, activities and debates, aiming to raise awareness and disseminate knowledge. Numerous leaders and directors participated.

Plurality Learning Channel

An online learning channel exclusively dedicated to the topic of plurality, aiming to help employees and teams better understand issues related to diversity and inclusion, thereby instilling a culture of ethics and respect both within and beyond the company.

Plural Chain

An initiative that seeks to recognize the efforts of Nexa's suppliers. One of the categories is a Plural Company, which recognizes suppliers that promote diversity and inclusion. More information about this initiative can be found in the ESG chapter of this report.



DIVERSITY INDICATORS

Women in the workforce:
17.3%
(industry: 7% in Peru and 17% in Brazil)

Women in leadership:
24.6%
(sector : 6% in Peru and 15% in Brasil)

Employees over 50:
13.7%

Indigenous in Brazil
1%

Black
34.5%

PwDs
4.2%
in Brazil and 0.5% in Peru





AFFINITY GROUPS AND KEY INITIATIVES

Empodera (Plurality)

- * **Breaking Taboos:** An initiative that promotes discussions surrounding taboos and unseen barriers, addressing unconscious biases.
- * **Women in Mining:** we were the first mining company in Brazil to sign the commitment letter.
- * **Women on Board (WOB) certification:** Recognized for having women represented on our Board of Directors.
- * Maternity leave in Peru was extended from 98 to 180 days.
- * **Nexa Mothers Conversation Groups:** where women can discuss, share experiences, and break barriers in topics related to motherhood.
- * **Aripuanã:** reference mining in Brazil with 24% participation of women in the workforce, 7 pp above the national average.
- * **Artemis Project:** a partnership established in 2022 to collaborate with other members to increase the diversity of its supply chain.
- * **KURAK ÑAÑYKI:** together with WIM Peru, we created this program to share knowledge and bring the women in the communities closer to STEM (science, technology and engineering) careers, enabling them to pursue their desired career paths.

Access (PwDs)

- * **Plural Talents Program:** this 18-month program is exclusively designed for individuals with disabilities who possess a degree or are in the process to get a degree in any field of study.
- * Accessibility initiatives at units in Brazil, with ongoing analysis of the situation in Peru.
- * Conversation rounds with leaders in Brazil and Peru to raise awareness, foster engagement, and provide updates on Access initiatives.
- * Training for the medical team on working with individuals with disabilities, including classification, biases, and how to address this public.
- * Participation in the PwD fair, promoting our job openings and inclusion initiatives.

Skin tones (race and ethnicity)

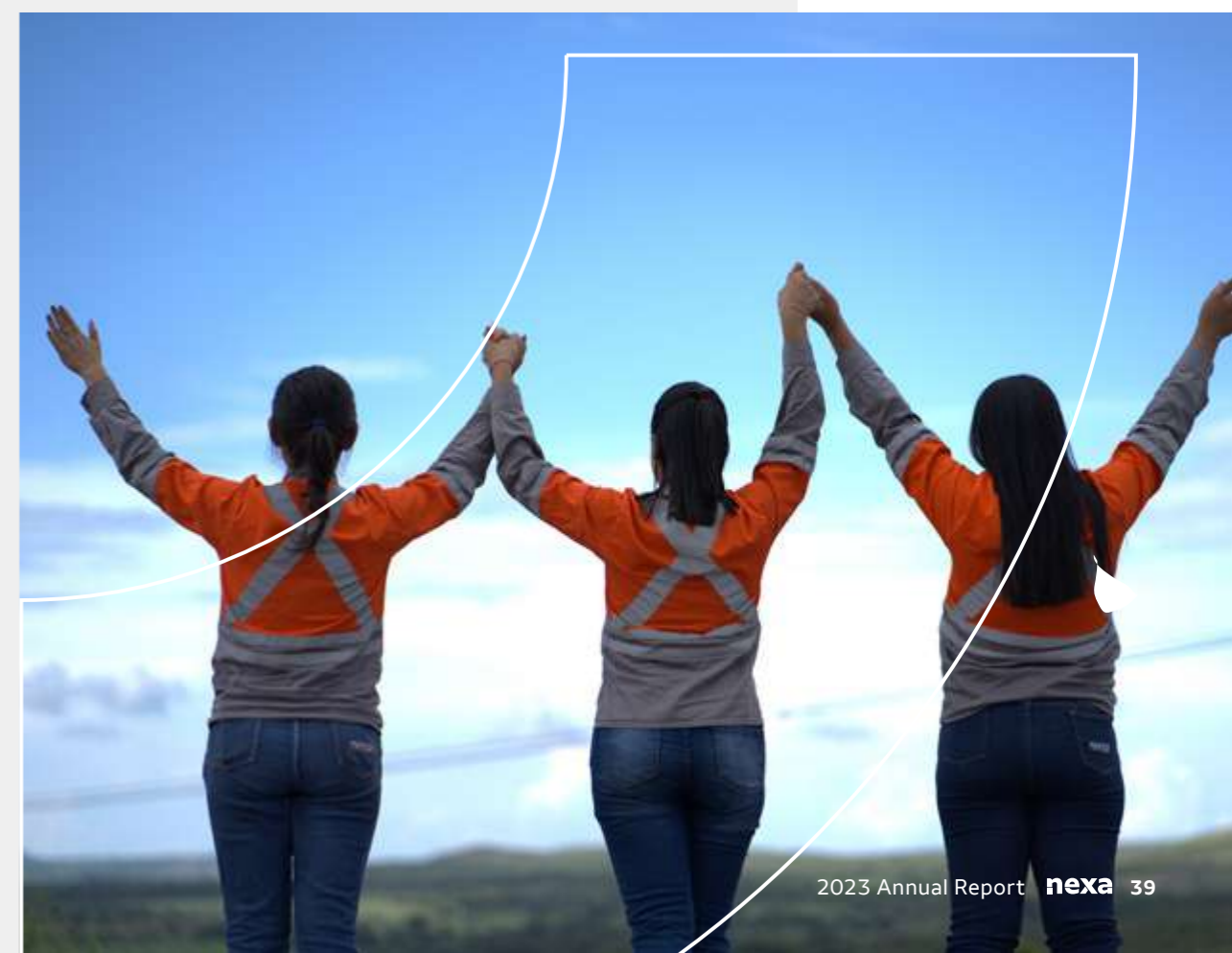
- * Member of the Women's Group Brazil Career Accelerator, which promotes training and development of Afro-descendant women for the corporate environment.
- * Training ambassadors (facilitators) for the units.

Connection (multi-generation)

- * Initiatives focusing on the longevity, culture, career development, and cooperation fronts.
- * **My Story:** conversations to make people aware and engage them regarding age and career biases at Nexa.

Pride (LGBTQIA+)

- * Subscribed to the LGBTQIA+ (Brazil) Company and Rights Forums.





Valuing Nexa professionals

GRI 3-3

We are continually striving to attract and retain talent. To achieve this, we leveraged the digital transformation of Human Resources (HR). For instance, we have implemented artificial intelligence with the virtual assistant Nina (chatbot) and data intelligence dashboards (BI). These tools provide us with comprehensive and integrated information to guide our employee initiatives effectively.

In 2023, we consolidated One HR, our streamlined people management model and unique HR system that has been in place since 2022. This model provides an overall view of the teams, with a unique selection and recruiting experience through an integrated database and in-sourcing the program. The self-service page, which has completed a cycle of use by employees, received in 2023 approximately 130 thousand candidates registered in our processes or who accessed the system to view Nexa opportunities.

The hybrid work model for administrative areas, implemented in 2022, continued in 2023, allowing a flexible work practice with two days a week in the office.

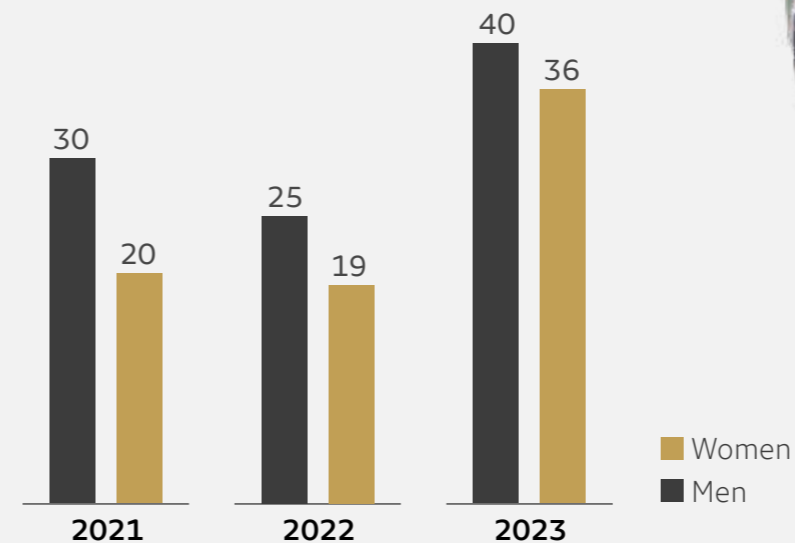
Career development

We facilitated the development of our employees by providing training to enhance technical, behavioral and management skills. We empowered individuals to become transformation agents and encouraging them to become protagonists.

In 2023, we offered a total of 240,000 hours of employee training and qualification programs. On average, male employees received 40 hours of training, while female employees received 36 hours.

GRI 404-1

AVERAGE TRAINING HOURS BY GENDER
GRI 404-1

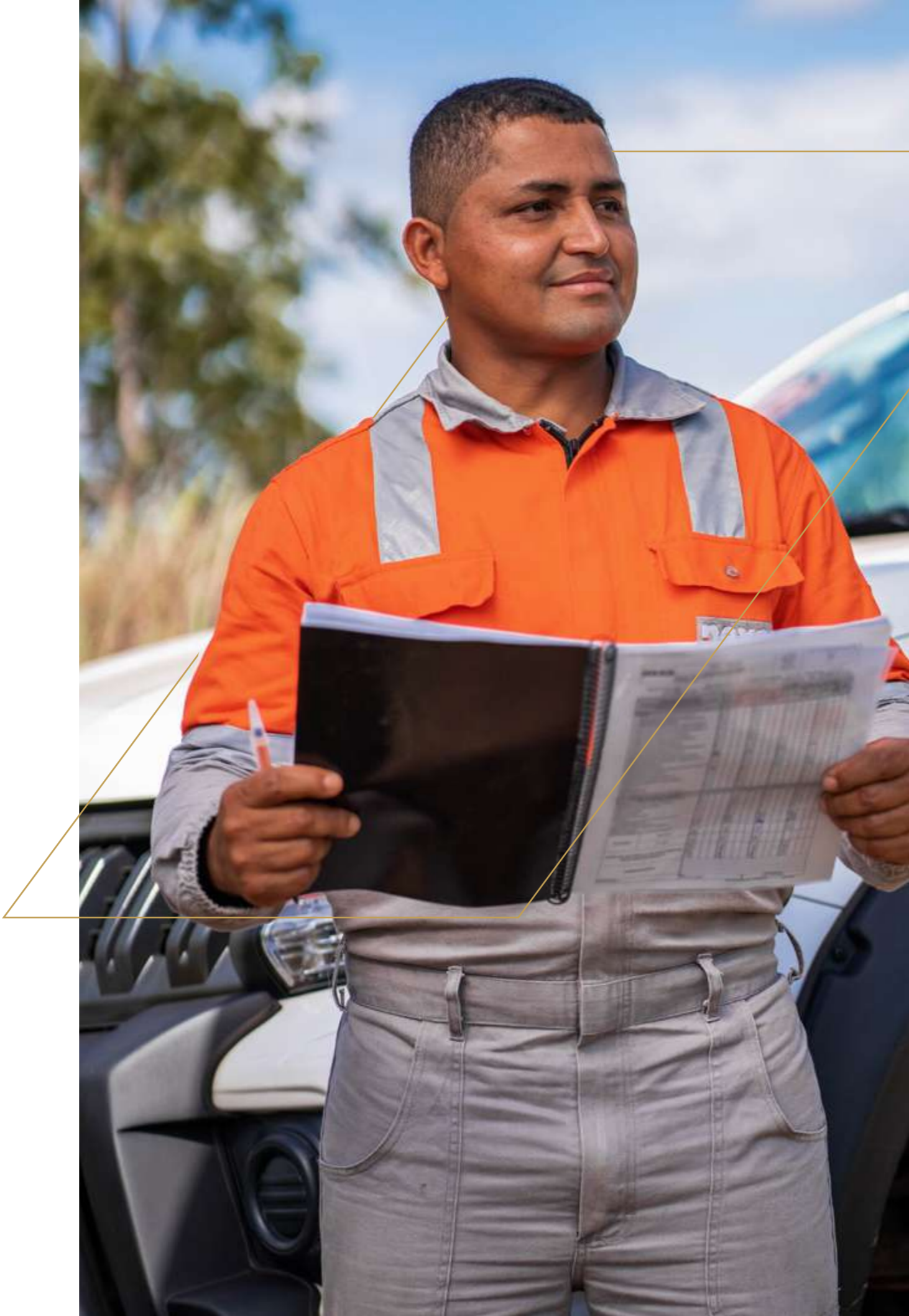


Nexa Up GRI 403-7

An annual career and performance management program that aims to establish a fair and balanced assessment of the performance and potential of employees, based on their contributions, adherence to Nexa Culture drivers, and learning agility. This cycle fosters the optimization of results and strengthens our culture and promotes best management practices. Following their assessments, employees receive feedback, engage in career discussions with their leaders, and develop their individual development plans. The program covers the entire professional audience and includes Managers and General Managers, in Brazil and Peru.

Conexa

Our Learning Management System (LMS) serves as a comprehensive learning platform, streamlining our training programs by reducing the number of suppliers and implementing a unified learning model. We offer training in various formats, such as games, videos, interactive sessions, TED talks, and content in partnership with national and international universities. In 2023, the platform facilitated a total of 234,481 hours of training, with a significant attendance from our operational staff.



Language Program

Enhances the development of professionals identified by their leaders through English, Spanish and Portuguese language learning. In 2023, 193 employees enrolled in the program.

Technical Schools

Online and in-person technical graduate and undergraduate courses focused on developing competences that are essential for the growth and consolidation of our business in different countries. Currently, there are three operational schools:

- * **Mining Development:** focuses on building the mining that changes with the world, currently with 40 participants, 20 of whom have degrees in Mining Engineering, and 20 with graduate degrees in Mining.
- * **GMIRM:** a mining risk management program focused on cultural transformation in safety, health, and well-being has directly trained 640 employees since 2022, mostly Nexa's leaders.





Entryways

We offer programs designed to provide young talents with the opportunity to gain valuable skills and experience to prepare them for careers at Nexa and the broader job market.

- * **Potenciar:** for Nexa in-house employees, aiming to enhance their technical and management skills by exchanging experiences and learnings among talents selected from all Votorantim S.A. investees. In 2023, we provided 70 hours of training to 10 participants.
- * **Internship Program:** on-the-job activities, training sessions, knowledge exchanges with leaders, and the completion of practical projects contribute to the development of our interns. In 2023, we had 238 active interns in Brazil and Peru.
- * **Professional Learning:** a program for professional qualification and insertion in the job market for youth aged 14 to 24, and for individuals with disabilities of any age. In 2023, our units in Brazil had 111 apprentices participating in the program.

Cultivating Leadership

This program aims to nurture Nexa's leadership by focusing on enhancing team management skills to support the process of cultural transformation and business development. In 2023, we trained 241 leaders in Brazil and Peru, with a total of 6,815 hours.

First-class Leader

This program aims to reinforce the behaviors and role of supervisors as Nexa leaders, fostering a real and practical connection with the realities of this level to accelerate succession planning. In 2023, we trained 308 employees in operations in Brazil and Peru, totaling 1,228 hours of training.

Women's Mentoring Program

This program serves as a development tool where expertise and experiences are shared among different professionals without any hierarchical relationship. In 2023, there were 46 mentors and 101 mentees. The program reinforces our commitment to developing and accelerating the preparation of more women in our talent and leadership pool.

One Leadership

In 2023 we launched the Top Team Effectiveness journey aiming to integrate and strengthen leadership, pursuing collaborative results aligned with the Company's strategy. This initiative began at the Executive Board level, which validated the positioning with clearly defined commitments and priorities. Thereafter the initiative engaged general managers and managers by uniting 180 leaders in a specific forum intending to build a one leadership, in compliant with the strategic challenges. In 2024, the program will be further developed and strengthen towards a more prepared leadership focusing on inspiring and performing across all Nexa's challenges. **GRI 2-17**

Recognition Program

We encourage employee recognition based on key behaviors that drive Nexa's culture. Through a computerized platform known as *Reconhecer* (Recognize), employees can both recognize their colleagues and/or be recognized using Zincoins, an internal currency. Zincoins can be exchanged for goods listed on the platform. Our numbers in 2023:

Benefits and compensation GRI 2-19

Our compensation policy aims to attract and retain talents, reward excellent performance, and offer competitive compensation aligned with industry standards. It consists of a base salary complemented by variable compensation tied to individual and team performance and the achievement of targets. This approach incentivizes development and the delivery of results while ensuring a fair policy that is compatible with the industry. For the senior leadership team, a long-term incentive based on the shareholders value creation is part of the compensation package. For further information, please refer to our [20-F Report](#).

Since 2022, ESG targets have been included in the strategic goals for senior leadership, directly impacting their compensation. For other professionals, these targets have been customized based on each department's responsibilities and projects related to ESG, fostering a sense of responsibility among all employees regarding this topic.



5,725
employees
recognized others.

5,745
employees
were recognized.



256
million
Zincoins were shared.



Health, safety and well-being

GRI 3-3

Ensuring the health, safety and well-being of our employees and service providers is an essential part of our work and a non-negotiable value. This commitment is reflected in actions and programs implemented across all Nexa departments, focused on three main goals:

- * **Eliminate fatalities**
- * **Reduce accident frequency and severity**
- * **Enhance the health, safety and well-being culture and standards across all our units**

In 2023, due to challenges faced regarding the culture of safety, we concentrated on identifying and assessing latent failures and potential serious events, managing critical controls, correcting risky behaviors, and fostering a culture of preventive health and safety with the Zero Harm Journey.

As a result of continuous implementation of programs and initiatives aligned with our aspirations, we achieved a significant milestone: zero fatalities in our operations in 2023.

Unfortunately, a fatal accident occurred at the El Porvenir mine, in Peru, during the preparation of this report. The incident is still under investigation and will be detailed in the 2024 report.

In 2023, the **Zero Harm Journey**, our cultural transformation program focused on health and safety, took another major step towards one of our aspirations. Training in Global Minerals Industry Risk Management (GMIRM) started in 2022 and involved new leaders in 2023, followed by training for supervisors. More than 500 employees underwent training in 2023, totaling approximately 11,000 hours of dedication. Over the year, 370 actions were carried out under plans devised by leaders, aiming to enhance the maturity level of Nexa's health and safety culture.

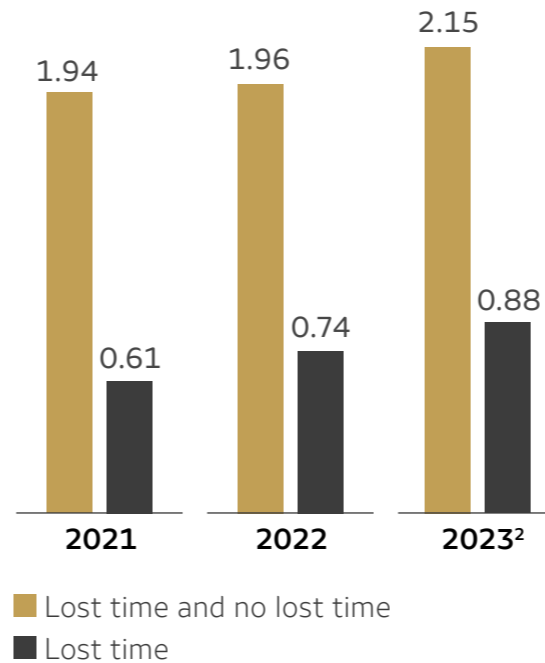
GRI 403-5



Our Occupational Health and Safety and Environment practice is currently divided into a corporate team responsible for strategic matters and guidelines; Mining and Smelting management departments responsible for tactical actions; and unit teams, responsible for operational actions. We believe this structure provides more assertive technical monitoring of health, safety and environmental issues.



TOTAL INJURY FREQUENCY RATE¹
GRI 403-9



¹ Rates were calculated as the annual sum of man-hours worked (MHW) and the average number of workers in all months. All employees (both direct and contractor) are counted when consolidating these rates.

² The result of the frequency rate in 2023 places us in the second quartile of the industry (ICMM base year 2022).

³ The frequency rate result in 2023 places us in the second quartile of the industry (ICMM base year 2022).

Health & safety management system
GRI 403-1 403-2; 403-7

Our Occupational Health and Safety (OHS) Management System is based on three pillars in constant evolution: planning, implementation and control, and monitoring and learning. It also references standards such as NBR, ISO 45001 e 31000, NR 01, NR 22 and DS024 – 2016. These standards clarify responsibilities, authority, and expected achievements, while also providing data and information to monitor indicators and conduct audits, removing any ambiguity.

Hazard identification, risk assessment, and incident investigation
GRI 403-2

Other notable efforts in 2023 focused on layered risk management. As part of the Fatality Prevention Program, processes were carried out throughout the year to identify priority undesired events (potential serious accidents) at all operational units to compose the HIRAs (Hazard Identification and Risk Assessment). These HIRAs will be integrated into each operation's routine work and will be used to verify critical controls to prevent undesired events. These risk management endeavors enable more targeted efforts, leading to more effective decision-making and more assertive actions in preventing catastrophic events.

The Fatality Prevention Program also emphasize the implementation of corrective and preventive actions for high-potential incidents, engaging Nexa's entire senior leadership in managing the lessons from these events. This includes discussing the action plan for high-potential accidents and incidents in the weekly meetings of the Mining and Smelting divisions, implementing actions across all facilities, and disseminating lessons learned.

Health and well-being

GRI 403-6

We work on prevention and protecting the health of our employees, with initiatives such as:

Occupational hygiene

We use preventive indicators to monitor exposure levels to risk agents, such as noise and chemicals, driving initiatives to reduce exposure through process improvements and implementation of engineering controls.

GoNexa

A global gaming program that promotes healthy habits to enhance quality of life. Employees track their diet, hydration, physical exercise, and mindfulness in the app, prioritizing both physical and mental well-being. Each recorded activity earn points, which contribute to competing for prizes. In 2023, the program garnered significant participation, with 200,000 healthy habits registered over a six-month period, leading to the distribution of 120 prizes to the monthly top performers from each plant.

Well-being

In 2023, a range of health initiatives were implemented to enhance the quality of life for employees. These initiatives included campaigns related to Mental Health Awareness (White January), ergonomics on World RSI Day, hearing and respiratory care, health and safety awareness (Green April), vaccination campaigns, mental health awareness (Yellow September), women's and men's health with financial incentives for preventive exams (Pink October and Blue November), as well as education and promotion of a healthy lifestyle.

Corporate staff were offered free registrations for four street races throughout the year, including events in major Brazilian capitals and in Lima, Peru, with high levels of participation. Additionally, preventive indicators on emotional health and cardiovascular risks were introduced.

Vaccination

Every year, we organize an influenza vaccination campaign for our employees, their dependents, as permanent contractors working at our operations and corporate areas. Additionally, we actively encouraged Covid-19 vaccination for all individuals with access to Nexa sites and offices, aiming to mitigate the risk of infection. During the vaccination campaigns, guidance is provided on respiratory hygiene, as respiratory syndrome-causing viruses pose a significant risk to our operations and employees.

Enfrente (Face it)

We offer a support program for employees that included health guidance and referrals to specialists in cases of alcohol and other substance abuse.

In 2023, there were no reported incidents of occupational illnesses at Nexa. However, as proactive measure, a health survey was initiated to diagnose potential occupational diseases. This included health and ergonomics evaluations at workstations, investigation of suspicious absences, and periodic medical monitoring for any related issues.

GRI 403-10





Safety in action

GRI 403-4

We continue to prioritize monitoring and awareness initiatives, providing guidance to employees and third parties to ensure a consistently safe operation.

Observation of Workplace Risks (ORT) **GRI 403-3**

Identifies and corrects risky behaviors while reinforcing safe practices during routine and non-routine activities within Layer 4 of the Layered Risk Management system.

PROA! movement

Launched in November 2023, this campaign aims to extend the awareness efforts through December and January, historically critical months for accidents. The campaign emphasizes the importance of using protective tools and equipments and includes proactive indicators to identify trends and prevent incidentals.

Internal engagement

Throughout the year, various internal engagement activities were conducted, such as Nexa Safety Day, and Internal Workplace Accident Prevention Week (SIPAT), and the Internal Workplace Accident Prevention in Mining Week (SIPATMIN). In 2023, the theme of Sipat was “Working together to boost our health and safety on the Zero Harm journey”, featuring contests and games that garnered high engagement.

Computerized Systems

We use Siclope (integrated incident control system) and Apollus (process data integration and agility) to aid in management process.



Technology, automation and innovation

GRI 3-3

Innovation is deeply ingrained in our operations and plays a crucial role in advancing our ESG strategy across all fronts. We leverage the global innovation ecosystem to accelerate our environmental, social and governance (ESG) targets through financially viable initiatives.

Our progress included projects aimed to decarbonize our energy matrix, repurpose operations to consume materials such as tailings and waste rock, along with ongoing efforts to enhance safety and productivity. Additionally, we actively pursue positive legacy initiatives that extend to various areas, laying the groundwork for a brighter future in the host communities where we operate.

In 2023, we invested a total of USD 8 million in innovation, research, and development. Embracing an open innovation approach, we collaborate with universities, research centers, innovation hubs, startups, and established organizations to exchange knowledge and drive forward-thinking solutions.

Mining Lab

To advance towards a more sustainable mining operation, we have operated the *Mining Lab*, since 2016, an innovation platform consisting of five programs: Beginnings, Challenge, Channel, Miningthon and University. Each program cultivated open innovation and entrepreneurship by addressing challenges pertinent to the mining and smelting industry. Through collaborators with partners across various industries, we aim to develop innovative solutions that drive sustainability in our operations.



MINING LAB 2023

7
open
challenges

15+
participating
countries

Over
210
solutions
registered in
our database



Innovation Hubs

Together with other mining companies and suppliers, we maintain connection and collaboration centers aimed at shaping the mining that change with the world, fostering knowledge sharing and experiences exchange.

In Brazil, we are founding members of the Mining Hub and actively participate in the Board of Directors. The Mining Hub is an open innovation initiative that encompasses all stakeholders in the mining chain. It serves as a platform for fostering connection, collaboration, and innovation empowerment within the sector, aiming to provide seamless solutions. Through various programs, it addresses the common needs of over 20 associated mining companies and 10 suppliers who are members.

Additionally, we are proud members of the Brazilian Association for Research & Development at Innovative Companies (Anpei), the sole financially independent multi-sectoral association in Brazil. Through our participation

in Anpei, we engage with other industrial sectors and gain insights into the progress of innovation across Brazil. Furthermore, Anpei facilitates engagement with regulatory bodies and sector administration entities.

In Peru, the Mining Innovation Hub is a partnership program initiated by mining companies to facilitate industry innovation and collaboration. Nexa serves as a founding partner and currently presides over the Steering Committee. This initiative aims to foster connections within the ecosystem, accelerate the development of initiatives to tackle challenges, and position the mining sector as an innovative industry. It focuses on Peru and Chile, with 10 members and over 30 affiliated companies.

Innovation projects

Innovation is omnipresent at Nexa, where we facilitate projects, pursue funding, manage our intellectual property, devise new business models, and expand our footprint by fostering our network. Our innovation projects prioritize four key topics



IT AND CYBERSECURITY

We continued to develop initiatives to bolster cybersecurity maturity within our Information Technology and Automation Technology domains.

The ongoing Cybersecurity program comprises three core pillars: protecting human life and physical integrity; ensuring operational continuity; and fostering cyber resilience to address global cybersecurity issues.



Topics

Ongoing initiatives in our operations in Brazil and Peru


**Productivity
and safety**

- Usage of data analytics in Cajamarquilla to optimize processes and increase the efficiency of input use in zinc production.
- Implementation of low-cost underground-to-surface communications enabling data transmission on personnel location or vital signs, while ensuring adequate ventilation and temperature in deep mines.
- Digitalization of checklists.
- Monitoring operational processes in the Três Marias smelter through image analysis.
- Implementation of the "Vision for All" project, providing a portable device with artificial vision for individuals with disabilities.
- Digitization of lock-out/tag-out procedures for a faster, more efficient, traceable, and practical process.
- Development of a Digital Twin of the grinding process in Cerro Lindo, which includes initiatives such as monitoring feed granulometry through image analysis, sensorized grinding tools for continuous wear assessment, installation of bolts for grinding dynamics, and the creations of a soft sensor to optimize product granulometry.
- Implementation of the Cimentation Project led by Process Technology, which introduces a new impoundment method involving dewatered disposition (separating liquid from solid), mixing with cement, and other reagents for dry stacking.


**Circular
economy**

- First sale of 15 tons of jarosite in Juiz de Fora, used as a geopolymers (cement substitute), with the potential to consume the entire stockpile of dams.
- Completion of studies in El Porvenir for the production of cement from limestone calcination.
- Advancement of the Concrete Project, including commercial negotiations for using waste from Três Marias as an input for cement production.
- Identification of a company by Mining Lab in Atacocha, which developed a cement substitute from mixing waste with a reagent.
- In Cajamarquilla, production of gypsum from the zinc production effluent treatment system, with the first sale to a cement plant using gypsum in its production.
- In Vazante, initiation of iron concentrate production through magnetic separation of hematite, aiming for 150,000 tons of iron concentrate per year. Partnership for investment and marketing are being pursued.
- Partnership with Finep in Vazante, involving an investment of R\$ 4 million from Nexa and R\$ 4 million from Finep, to produce soil acidity amendments from beneficiation waste.
- Initiation of the sale of stored materials (copper cement, cobalt, zinc smelting slags, etc.) in Três Marias, which are being transformed into other products.
- In Ambrósia, we continue to selling dolomite waste rock as aggregate for building and construction purposes.
- At Cerro Lindo, we are utilizing pyrite for effluent treatment as a metal adsorbent.


**Creating a
positive legacy**

- Partnership with Amazon Web Services (more details available in the ESG chapter of this report).
- Pasco Positive Legacy: establishment of an agency to coordinate community relations and promote economic initiatives around the operation. This includes development of corn, potato and pig farming chains in 2023.
- Development of the milk value chain in Vazante. Focusing on strengthening local community value chains, raising funding and supporting development in line with ESG values.
- Anjos da Natureza Ecopoint in Juiz de Fora: Creation of a waste sorting and recycling unit in collaboration with the community, with training to operate the unit independently once it reaches a capacity of 15 tons per month.
- *Reciclaí*, a recycling awareness program implemented in schools in Três Marias, placing ecopoints in schools to encourage the sales of waste to recyclers in a healthy competition among institutions.


Decarbonization

- Use of bio-oil from charcoal production tar as a substitute for fossil fuel oil in zinc furnaces in Três Marias: In 2023, we converted 12 furnaces to this new fuel. This project is expected to reduce 25,000 tons of fossil emissions by 2027, achieving half of our public target for 2030.
- Industrial use of biogenic solid fuel to replace petroleum coke, known as biobriquette, Waelz furnace in Juiz de Fora: By substituting 30% of the petroleum coke, this initiative is projected to result in a 25,000-ton reduction in carbon emissions by 2030
- In 2023 we contracted 100 hydraGENTM units from H2Tek for installation throughout 2024. The injection of hydrogen and oxygen in diesel engines, this technology reduces diesel consumption by more than 5%.

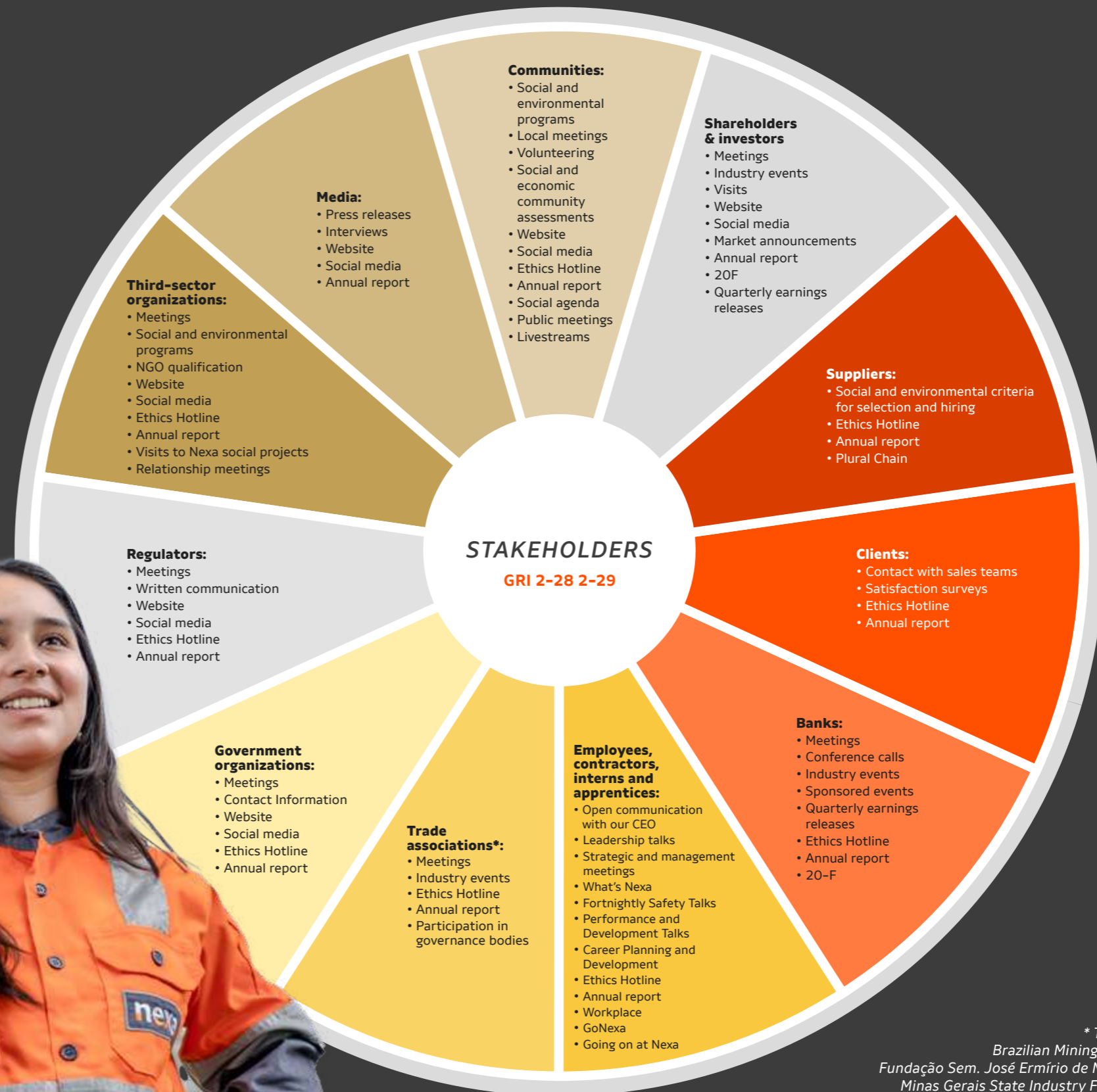


ESG

GRI 3-3

- ESG pillars relating to this chapter: S (social) and E (environmental)
- Social and relationship capital; Natural capital
- Material topics addressed in this chapter: Social management; Water resource stewardship; Dams, tailings and waste management; Climate change; Governance and reputation

We regularly engage our diverse stakeholders through transparent communication, ensuring effective two-way dialogue.



* Trade associations:
 Brazilian Mining Institute (IBRAM),
 Fundação Sem. José Ermírio de Moraes (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 (Sindixtra);
 Mato Grosso Mining Industry Federation (Sindiminério); Trade Union of Extractive Mining Industries
 of Mato Grosso State; Brazilian Association of Mineral Exploration and Mining Companies (ABPM); Brazilian
 Association for Research & Development at Innovative Companies (ANPEI), Mining Hub and Hub de Innovación..

Suppliers GRI 308-2, 414-2

Regardless of the product or service involved, it is imperative to us that our suppliers demonstrate a commitment to implementing best social and environmental practices, using natural resources responsibly, and upholding workers' rights. As such, all significant investment¹ agreements and contracts therefore include human rights clauses, ensuring that these principles are upheld without exception. **GRI 412-3**

¹ We consider significant investments to be processes that are in demand by the Capex area (Procurements), having purchase requests over USD 200,000.

Our Supplier Management Program aims to establish continuous communication with our business partners who share our values.

One of the most effective tools for this purpose is our Supplier Code of Conduct, which all business partners are required to be familiar and comply with.

In 2023, our journey towards a sustainable value chain made significant progress. Throughout the year, we prioritized the development of local suppliers, conducting conversation rounds at our units to identify the main challenges to be addressed.

At year-end 2023, our supplier base included 5,951 companies² (3,571 in Brazil and 2,380 in Peru) across different segments: inputs, raw materials, waste management, environmental management, power supply, minerals and chemicals, fuels, healthcare services, packaging, shipping, MRO (Maintenance, Repair and Other), facilities and IT, as well as services and maintenance, among others. Our total supplier spends amounted to US\$ 1.1 billion, with 6.77% spent on local suppliers.

² We have 5,951 registered and active suppliers, but in the year 2023, 4,495 were utilized.

SUPPLIER SPEND GRI 204-1

	2021	2022	2023
Total supplier spend (US\$ million)	2,194.40	1,221.47	1,840.90
% of spending on locally based suppliers	3.8%	10.3%	6.77%

In Brazil, local suppliers are defined as small and medium-sized firms located within 100 kilometers of our operations (excluding major cities such as São Paulo). In Peru, we consider suppliers based on the direct area of influence surrounding our operations, as indicated by the Social Management team. These suppliers can be both local and communal.



firms



Within Nexa's Supplier Management Program, suppliers undergo a screening process involving the review of relevant documents and legal requirements applicable to their respective categories.

The supplier screening process includes integrity due diligence (IDD), which involves cross-referencing commercial and tax data with a wide range of publicly available information. This information is captured from various entities such as the Federal Revenue Service, the Integrated System of Information on Interstate Transactions of Goods and Services (SINTEGRA), credit protection bureaus, internal lists, and publicly available sources. The purpose is to assess risks associated with corruption, fraud, money laundering and terrorist financing.

In the event of any reported violations related to these matters, an investigation is promptly initiated to establish facts and gather data. This supports decisions and the application of penalties, which may range from fines to contract termination. In 2023, there were no instances of violations related to these matters.

GRI 407-1, 408-1, 409-1

Supplier Assessment Program

In 2022, we incorporated the analysis of ESG practices and indicators into our Supplier Assessment Program. This includes qualitative assessments for the materials category, form and metrics reviews, a new assessment frequency (every six months), communication of questionnaires and scores to participating suppliers, classification of suppliers by criticality, and the inclusion of procedures recommended by the Procurement department to better track assessment outcomes.

Suppliers are assessed on ESG criteria across six dimensions: environment, social management, health and safety, performance, compliance with laws and regulations. If a supplier fails to meet the minimum expected score, either overall or in an individual dimension, the assessor is responsible for collaborating with the supplier to develop an action plan to address weaknesses.

Of the total suppliers that Nexa considered for selection or hiring in 2023, 98.8% underwent screening based on environmental criteria. In the year, 4,441 suppliers underwent human rights assessments (98.8%) with none identified as causing significant potential human rights impacts. For these cases, process improvements were agreed upon to ensure compliance with Nexa requirements. No supplier contracts were terminated in the period. **GRI 308-1, 414-1**

Supplier Recognition

A Supplier Recognition Program is established to bestow awards upon suppliers who consistently and notably demonstrated our values and sustainable principles, fostering a spirit of collaboration and partnership.

We actively encourage our business partners to implement and enhance initiatives aligned with our purpose. In 2023, we announced the integration of ESG criteria linked to Nexa's public goals into our awards program. This initiative was pivotal in initiating the transformation of our supply chain for the years ahead.

ESG criteria are already being considered in new supplier contracts, while existing contracts adhere to previously established standards.

Given that diversity is a key topic in our ESG strategy, essential for the longevity and growth of our business, we introduced the **Plural Chain** into our Supplier Recognition Program in 2022.

This initiative aims to recognize our business partners' diversity initiatives across all geographies, thereby disseminating our plurality approach and fostering an increasingly inclusive culture while engaging our suppliers.

In the 2023 edition, the program recognized 10 Brazilian suppliers and 10 Peruvian suppliers for their outstanding performance in categories such as logistics, engineering, materials, inputs, safety and local supplier categories.



Learn more

about plurality in the Culture chapter of this report.

GRI 308-1, 414-1

Customers

We firmly believe that fostering a close and transparent relationship with customers is essential for nurturing long-term partnerships and ensuring service excellence. Our commercial teams are therefore dedicated to fulfilling customer demands and needs with the quality, agility, safety, and care that are inherent to our DNA.

In addition to technical and commercial visits conducted by Nexa team, in 2023, we conducted more than 20 technical workshops. These workshops focused on best process practices associated with optimizing zinc consumption and its alloys.

To further enhance our communication with customers, we have bolstered our active communication channels through different platforms:

- **Market Newsletter**

A quarterly newsletter for Nexa customers, providing information about the zinc market and its primary drivers, innovations, and developments, with a specific focus on products and services.

- **Zincast**

A fortnightly podcast by the commercial department, 5 minutes long, covering the zinc market and technical topics, facilitating more efficient and effective communication with our customers.

- **Market Talks**

One-on-one conversations with our clients aimed at exchanging market insights and providing closer attention and service.

We prioritize the management of products and service quality while continuously developing new products, solutions, and markets. Additionally, we actively promote the use of zinc and its by-products. In 2023, we hosted the Zamac Journey for our clients and participated in significant international forums such as Intercorr, Intersolar, and Latingalva where we provided insights into the zinc market and shared information about our ESG Strategy.

ESG in the customer value chain

We recognize our responsibility to promote responsible business practices. Therefore, in 2023, we launched our Code of Conduct for Customers, which is inspired by our culture and our commitment to integrity, ethics, human rights, plurality, and socio-environmental responsibility.

Furthermore, in 2023, we completed the assessment of carbon emissions for zinc, considering scopes 1 and 2. Our current carbon emissions stand at 0.44 ton of CO₂ per ton of zinc produced, which is 8 times lower than the mining industry average, a highly competitive position in scopes 1 and 2.

Using this data, we developed materials highlighting the low carbon footprint of Nexa's zinc compared to the zinc market average. These indicators were published on LME Passport, a digital platform maintained by the London Metal Exchange. This platform stores and maintains essential documents and information about the origin of the traded metal, accrediting producers aligned with ESG policies.

Regarding scope 3, we actively participate in various discussions with the International Zinc Association (IZA) to align the relevance of the categories and methodologies. This collaboration has enabled us to advance in this scope assessment.

In 2023, we conducted an intensive internal effort to thoroughly understand our data and establish parameters that are comparable to market standards. Additionally, we organized benchmarking meetings with various clients to better understand the ESG needs of different applications involving zinc, alloys, and zinc oxide. In the next cycle, we expect to effectively consolidate this joint endeavor.

Nexa's vision for the future is to actively contribute to the construction and be part of our clients' ESG goals, through partnerships.



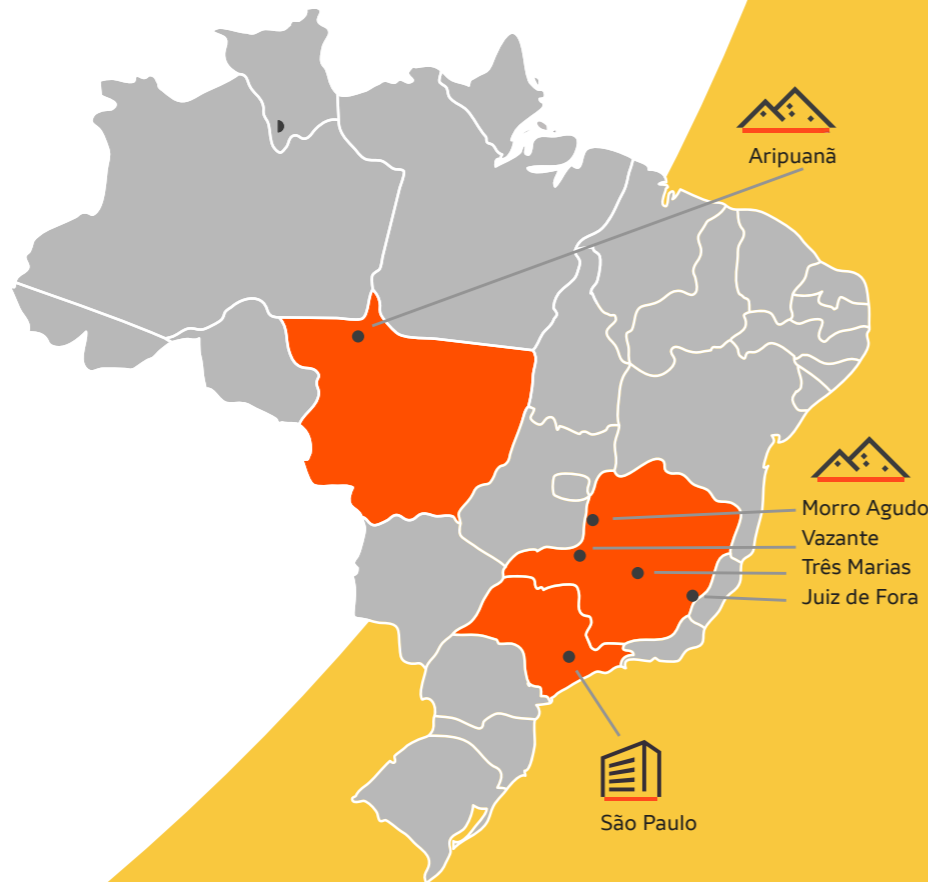
Society

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

Operating in harmony with local communities poses one of the greatest challenges of the industry. We are aware of our role as an agent of change and promoter of local development in our host communities, and we consequently dedicate ourselves to maintaining an increasingly close and transparent relationship with them.

Encouraging sustainable development is goal. In 2023, we reassessed the scopes of our projects and prioritized those that align with our strategic social topics: income generation; basic and vocational education; water; and social license to operate.

Currently, all of our operating units have programs in place related to local community engagement, impact assessment, and local development. **GRI 413-1**



2023 Projects

Brazil

- **Tourism and economic development in Três Marias and Vazante**

This initiative supports regional tourism by providing technical assistance to government administrations and promoting local economic development. This benefits the community, government administrations, and dozens of local traders and service entrepreneurs. The project has been recognized by the Brazilian Tourism Congress.

- **Development of local suppliers and businesses**

This initiative is a collaborative effort across all Nexa Brazil units aimed at enhancing the qualifications of suppliers and local entrepreneurs. Its goal is to accumulate 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 in these regions.

- **Professional Training Program**

Partnering with Senai (National Industrial Learning Service), we provide free slots for students in diverse professional training courses such as machine operators, loading and transportation, mining operations assistants, and industrial mining maintenance mechanics.



SOCIAL INVESTMENT IN 2023

In Brazil, we invested US\$ 1.85 million in development and impacting initiatives, primarily focusing on infrastructure and services. These initiatives included social projects in our geographies and joint projects with local government authorities. In Peru, we invested US\$ 8.2 million in initiatives for income generation, education and professional training, water, and health projects. These efforts included a range of social projects within our geographies. **GRI 203-1**

602
projects and
initiatives

9
locations



• **Partnership with Amazon Web Services (AWS)**

In 2022, we reached out to AWS, and in line with our ESG goal of providing professional training. By 2023, we managed to set up a social impact contract and offer a basic cloud computing course with AWS certification to communities in Brazil and Peru.

Despite our geographies being primarily rural areas with limited internet and computer access, we achieved significant local interest in the professional qualification courses. Universities and indigenous communities also participated actively. Through extensive dissemination efforts, we reached individuals from other regions as well, ultimately impacting over 20,000 people.

The Nexa and AWS, in addition to this initiative, structured a pilot project with 50 women beneficiaries of the Bolsa Família program, with 25 in Juiz de Fora (MG) and 25 in Recife (PE), as per contact with the Ministry of Social Development and Hunger Alleviation.

In July 2023, AWS and the ministry formalized the agreement in Brasília, paving the way for the commencement of the course in 2024. Nexa attended the signing ceremony and pledged to contribute to and oversee the entire process in collaboration with the Municipal Government of Juiz de Fora.

Given the success of this initiative, we aim to promote the importance of technology and the future of the work within the Brazilian Mining Institute (IBRAM). Through advocacy efforts, we seek to encourage other mining companies to join the initiative and expand its reach, thus creating a legacy for other communities.



powered by
nexa + aws

Talent in the Cloud

Discover the Cloud

Introductory Course to Cloud Fundamentals.

Partner:
dio.

Talent Cloud Pro

Professional Course Introduction to Programming and AWS Cloud.

Partner:
Proz

100,000
will be trained
by 2025
(Brazil and Peru)

2023
BRAZIL: 20,000 vacancies
PERU: 5,000 vacancies

2023
BRAZIL: 700 vacancies
PERU: 300 vacancies



Peru

• Irrigation Water Program in Cerro Lindo

Several initiatives were carried out to improve water access and efficiency in the region. This includes the rehabilitation of canals, reservoirs, and wells, as well as the installation of conduits and cleaning of canals to improve water distribution systems. As a result of these actions, there has been a significant increase in water accessibility for irrigation and consumption by producers in Chavín and the Topará Valley, thereby contributing to the expansion of arable land. Moreover, 48 solar panels were installed to provide clean energy for the water pumping system that supports this irrigation program.

• Telehealth and health campaigns

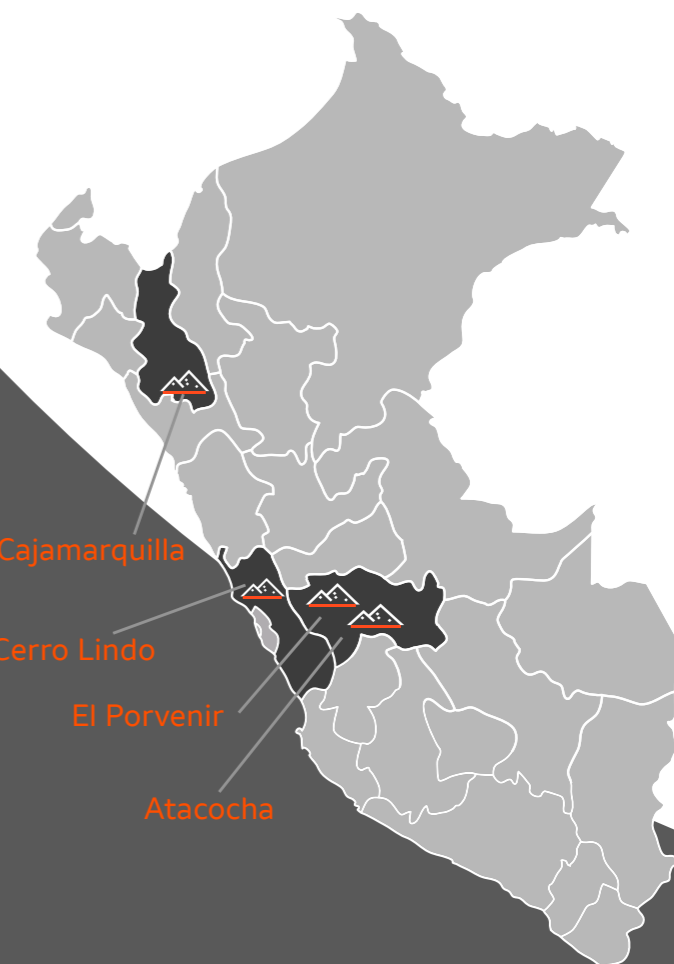
The Telehealth service implemented in Pasco and Inca included sustainable ultrasound scans as part of routine public healthcare. The project was successfully completed, and the service has since been transferred to the Regional Health Department, which is now responsible for it. Health campaigns were also conducted in the communities of Pasco and Cerro Lindo, with active participation from the community. These campaigns opened avenues for the early detection of non-communicable diseases, thereby promoting overall health and well-being. **GRI 403-8**

Cajamarquilla

Cerro Lindo

El Porvenir

Atacocha



• Training in waste collection

We held four large-scale events in the San Juan de Milpo region providing technical and operational training on waste collection. These events also focused on raising awareness about waste management practices. The items needed for the process were handed out.

• “Learning to be an Entrepreneur” Project

This project aims to improve basic academic and psychological capabilities of high school students in communities near Cajamarquilla. The project also aims to develop entrepreneurial skills among these students, empowering them for future endeavors.

RESULTS OF SOCIAL PROJECTS AND INITIATIVES IN 2023

GRI 203-1

- AWS partnership: 20,000 people were given access to cloud computing courses.
- Project to strengthen the tourism chain in Três Marias (alternative economic development), recognized by the Brazilian Tourism Congress.
- Three Primary Care Units (PCU) were delivered, improving health indicators with projects to support government administration and to refurbish the Aripuanã airport.
- Development of local suppliers and businesses: In Três Marias, this benefited 96 individuals, and 19 in Vazante.
- The irrigation program in Cerro Lindo benefited 40 families in Chavín and 45 in Vale do Topará, with the solar panels benefiting 280 farmers and covering 72 hectares of land.
- There were 8 health campaigns in Pasco and 2 in Cerro Lindo, reaching more than 2,500 individuals.
- The entrepreneurship program for high school students impacted 1,139 students in communities near Cajamarquilla.
- Additionally, there were 1,845 telemedicine consultations conducted in Pasco and Cerro Lindo during 2023.

Dialog channel

We seek to establish long-lasting, transparent, and trust-based relationships with the communities surrounding our operations, through open and honest dialogue.

- **Management involvement:** we employ numerous communication and dialogue mechanisms in the communities, such as websites, e-mails, phones lines, physical suggestions boxes for written notes, and in-person assistance provided by our social management team.
- **Leadership dialogue and engagement:** Since 2018, we have been actively promoting the Social Agenda in our operations in Brazil, which includes training, planning, and intervention to foster social involvement and the development of approximately 120 leaders, as well as community networks for local development.
- **Nexa Open Doors:** our program facilitates community visits to our operations, aimed at creating a relationship of knowledge and trust, for the families of our employees, students and local residents. In 2023, we conducted 25 visits across 5 Nexa operations in Brazil, with over 520 participants touring the operational facilities, learning about the dams, and receiving information about the company.
- **Information and Participation Offices (IPOs):** In our Peru units, we seek to promote active community involvement through permanent information offices. These offices serve as a representative mechanism for communication and participation in accessible areas, employing a variety of tools set out in the communication plan. They organize informative meetings, workshops, and assemblies to engage with the community.
- **Participative Environmental Monitoring:** This initiative has been implemented in our units in Peru, promoting community participation in the periodic monitoring of air, water and soil quality.
- **Nexa + Community:** a day of citizenship and cultural activities organized jointly with government agencies and social organizations. Services provided during these events include document issuance, job/profession fairs, and information on personal care. In 2023, 14 such events were held, attracting 8,432 participants.





Social action planning

In the second half of 2023, Nexa's Social Management practice, in partnership with Instituto Votorantim, initiated a review of the social planning for units in Brazil. This was aimed at addressing business challenges and generating long-term social value.

This planning is a crucial step in reviewing the project portfolio, while also adding and consolidating a vision of long-term social programs capable of fostering positive and lasting social transformations. The process involved various internal corporate and unit areas as well as external community stakeholders.

Moreover, we continued with the efforts to consolidate the Local Development Plan in Aripuanã (MT) through a process of community consultation and engagement to compiling it into a plan of outlining concrete actions.

In Três Marias, the process of relocating families due to the dam raising was halted following the filing of the environmental licensing process for the Murici deposit raising. This milestone was achieved by advancements in the dry disposal project. Elsewhere, we focused on maintaining and improving projects and relationships.

In El Porvenir and Atacocha, local development plans were developed with community collaboration, as part of our involvement strategy of involving local stakeholders. The primary goal of these plans is to identify the area's

priorities and guide investments towards long-term sustainable development. This approach seeks to establish alliances with stakeholders from both the public and private sectors.

In Cerro Lindo, we conduct regular meetings with the associations of Vale Topará and Chavín to continuously review priority projects, especially in terms of agricultural activity. An agreement was established with both communities, funded by NEXA through a social fund, as part of our efforts to promote local economic development. This agreement also serves to strengthen the relationship between the company and local communities, ensuring sustainable and mutually beneficial development for all parties involved.



ENVIRONMENTAL PERMITTING FOR INCREASING THE HEIGHT OF THE MURICI DEPOSIT IN TRÊS MARIAS

GRI MM9

In 2023, the involuntary displacement or resettlement plan for residents of the Self-Rescue Zone (ZAS) of the Três Marias tailings dam was interrupted.

These residents were initially expected to be affected by the expansion of the Central and West 1 modules of the Murici tailings storage facility, which utilized the downstream approach. This deposit receives industrial waste from the manufacture of metallic zinc alloys and zinc oxide.

Negotiations for the displacement process began in 2022. However, during this period, another project was tested to receive these

industrial tailings, which can now be dry-stacked, thereby eliminating the need to expand the existing dam.

We conducted targeted communication to the directly involved parties (surface rights holders, Public Prosecutions Department, municipal government, and the community) about the new situation through our communication channels and discussed with leaders the suspension of the process by the environmental agency. In 2024, our focus will be on fully clarifying the new licensing process and mitigating any resulting impacts, with the purpose of strengthening our relationship with the community.

Operations near indigenous communities

GRI MM5 SASB EM-MM-210a.2

Our Aripuanã (MT) operation is located about 10 kilometers from the indigenous lands of the Cinta Larga and Arara do Rio Branco peoples. The Cerro Lindo, Atacocha and El Porvenir operations in Peru are near Quechua populations, which were officially recognized as original communities only recently, after our operations were already existant.

These Peruvian communities are identified in our social relationship strategies and, in some cases, hold ownership of the surface land where we conduct activities. They are therefore our counterparts in various agreements and contracts, in which such status has no impact.

In these territories, we have formal social investment agreements with local communities, which have been validated by community representation institutions as required by the laws of Peru for the collective lands of original communities.

Even though these communities are not directly within the area of influence, in Aripuanã, we have undertaken what we refer to as preventive activities with the Cinta Larga and Arara do Rio Branco indigenous communities, using the eight dimensions listed in the Indigenous Component Study (ECI), approved by the National Indigenous People Foundation

(Funai), complying in full with applicable legislation for activities involving indigenous people in Brazil.

In May 2022, we submitted to Funai the Basic Environmental Plan for Indigenous Components (PBACI) to Funai. This plan is an integral part of the ECI and specifically indicates the mitigating actions to be undertaken by Nexa based on the impacts identified in the ECI. The PBACI is currently under evaluation by Funai, and the company has already commenced the implementation of certain preventive actions in line with the plan.

We check and strive for prior free and informed consent of the locations where there are indigenous peoples, as per international conventions and the laws of each country, respecting and complying with OIT 169 requirements.

We are All

With the goal of enhancing our social initiatives within our geographies and fostering stronger connections with our internal stakeholders, Nexa's volunteer program addresses solidarity, mentorship, and social legacy.

Present in five municipalities in Brazil and in Peru, this proposal is to foster social participation and the development of local networks and alliances, enhancing dialogue and increase community engagement for local sustainable development.

VOLUNTEERING IN 2023

Brazil

5 locations

13,525 hours' volunteering

45 initiatives and activities

5,939 people benefited

941 employees engaged

Peru

5 locations

112 hours' volunteering

5,674 people benefited

4 initiatives and activities

87 employees engaged



Decommissioning and positive legacy

GRI 3-3

From initial planning stages undertaken by our plants, throughout the operational phase, and beyond, we prioritize the appropriate decommissioning of our activities to establish a positive legacy for the surrounding community. Decommissioning is an integral component of our business strategy and is overseen by internal policies that include operations at all levels, including senior management.

We have comprehensive decommissioning and future use plans in place for all our operations. These plans are meticulously developed using the latest and most practical technical references available worldwide. **GRI MM10**



These decommissioning plans extend to the deposits that are to be deactivated once their life of mine has ended. Furthermore, we commit to ongoing monitoring of these areas based on the specific control needs of each location.

For instance, the Santa Rosa and Sinaycocha operations in Peru are reaching the end of their decommissioning process.

In Vazante, the Vazantes Mineiras project focuses on the future use of the company's rural properties. This initiative encompasses farming/ranching, socio-environmental activities, research and tourism endeavors. In 2023, significant progress was achieved across multiple fronts, particularly in preparing communities for agrarian matters and developing livestock and agricultural techniques.

In January 2024, we launched the Teaching and Research Center, which now supports Vazantes Mineiras with infrastructure and research for universities in the region. The center also facilitates the involvement of researchers in various projects and promotes other socio-environmental initiatives developed by Nexa. It features amenities such as an auditorium, offices, changing rooms, reception area, lounge, and a shop dedicated to local crafts.

Emergency drills

SASB EM-MM-540.a3

In 2023, we conducted an emergency drill for each operational unit in Brazil together with municipal Civil Defenses and the Fire Department. To ensure the stability of all tailings dam, external audits were conducted regularly. Drills also take place to evacuate residents from the Self-Rescue Zone (ZAS) as an integral part of each deposit Dam Emergency Response Plan (PAEB/PAEBM), in accordance with applicable regulations.

The drills served as preparatory training for potential emergency situations and included various actions such as lectures, discussions with residents in the ZAS, and evaluation of evacuation routes and meeting points. In 2023, all drills witnessed active participation from the population surrounding our dams.

Dam safety

EM-MM-540a.2

In 2023, significant progress was made in dam safety with the implementation of Prox, a software used in all our mining and smelting operations. Developed by the Brazilian Mining Institute (IBRAM), Prox provides information about the structures to the community, thus enhancing transparency in our operations.

With the support of Civil Defenses, we conducted successful practical emergency drills for evacuation in the cities of Juiz de Fora, Três Marias, Vazante and Morro Agudo. These annual exercises are conducted to bolster and expand the culture of prevention and safety and to instruct the population in the dams' ZAS on how to act in case of an emergency.

Nexa has stability certificates for all its structures located in Brazil and Peru, as mandated by the current legislation in each country. We have adopted the best internationally recognized practices for the management of tailings and waste structures.

Another notable development in 2023 was the implementation of the Slope Health Monitoring System (SHMS) in Brazilian operations. This dam management software that consolidates all information in real-time, storing data and allowing for statistical analysis with agility, thus improving safety. We plan to implement the system in Peru in 2024.

Over the course of 2023, we began implementing sirens as a preventive measure for dam and deposit breaches at the Cajamarquilla smelter.



Environment

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

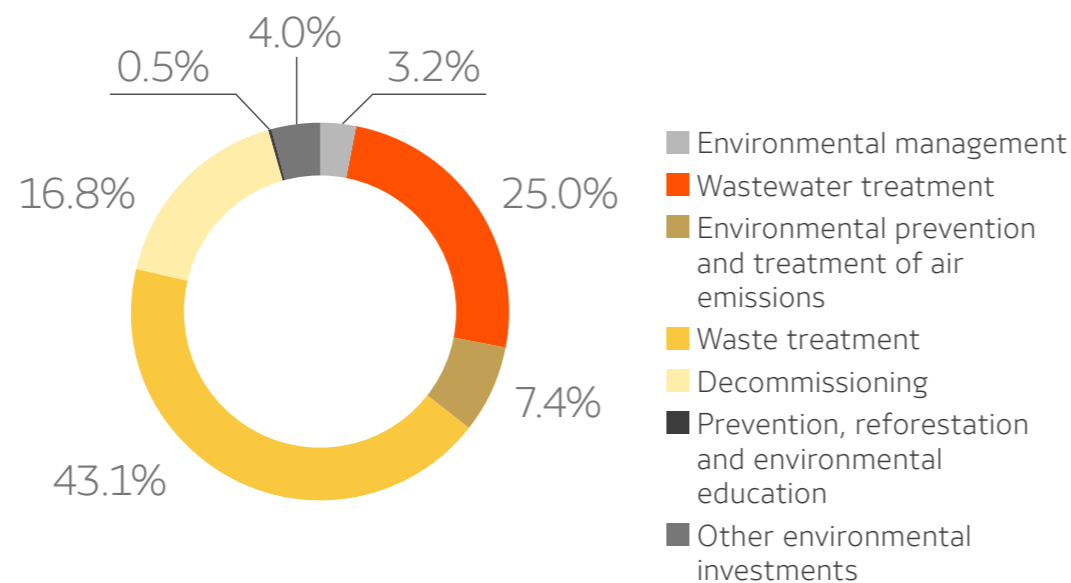
Our Integrated Management System establishes guidelines for conducting business focusing on quality, environmental, health and safety management, and social responsibility. This system ensures compliance with environmental laws and regulations applicable to our business in each country where we operate.

Nexa's environmental management system aims to align strategic planning and operations with the ESG Strategy, ensuring the safe management of tailings and water deposits while elevating our health, safety, environment, and well-being standards.

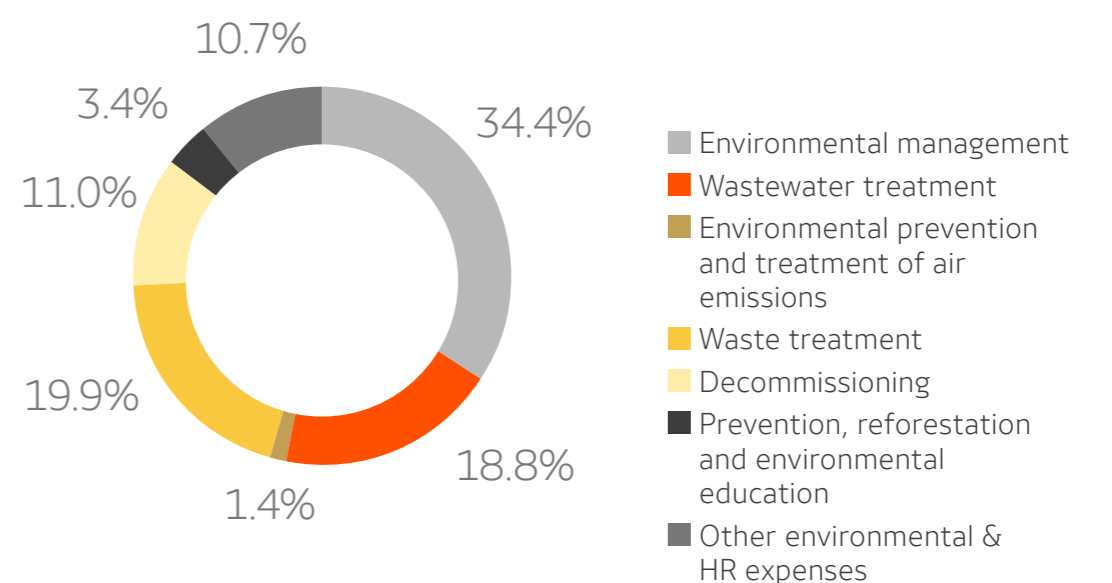
It has been implemented using PDCA (Plan, Do, Check, Act) approach, the system incorporates various programs and tools such as clearly articulated goals and targets, risks and requirements management, dam management, internal and external audits, flash indicators, an environmental component within the Nexa Culture, and the Siclope initiative management platform. All of our operations have active Environmental Management Plans in place. **SASB EM-MM-160a.1.**



ENVIRONMENTAL INVESTMENTS EN31



ENVIRONMENTAL EXPENSES





Water resource management

GRI 3-3 303-2

Mining and smelting operations heavily rely on water for their process. Therefore, Nexa places significant importance on effluent treatment and invests in technologies for water recycling. Our operations regularly implement initiatives to reduce water consumption, and a series of projects are underway to reduce water intake and enhance its recirculation.

In Brazil, we adhere to numerous environmental regulations concerning water resources, caves, waste management, contaminated areas, protected areas, and conservation. All our operations in Brazil possess water usage permits in accordance with Brazilian, state and municipal regulations. Moreover, all activities affecting protected areas are subject to ongoing environmental measures, such as implementing stringent controls on local impacts.

In Peru, mineral resources are owned by the state, and the government legislates the conditions for awarding mining rights and easements. All our activities in Peru comply with environmental requirements related to water use, forest resources, and protected areas.

Our Sustainability Master Plan and Corporate Standard on Water Management provide guidelines for 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, 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.

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 stored in compliance with regulations to prevent contamination. All rigs maintain rigorous control over the use of fuels and lubricants, and we provide all required containment.

GRI 303-1

RECIRCULATION RATE

In 2023, we achieved a water recirculation rate of

82.5%

across our global operations.

WATER CONSUMPTION

GRI 303-5

Our operations consumed

9,840.94 ML

of water in 2023.

SPECIFIC WATER CONSUMPTION

Mines:

1.97
m³/metric ton

of ROM*.

Smelting plants:

22.1
m³/metric ton

of metal.

* ROM = Run of Mine

EFFLUENT TREATMENT

US\$ 15.6 million

of our environmental investments and expenses in 2023 dedicated to effluent treatment.



Legado das Águas

The largest private Atlantic Forest reserve in Brazil, occupying 31,000 hectares in the region of Vale do Ribeira, in southern São Paulo state, serves as a center for scientific research and the development of initiatives in the new economy, including public use, ecological restoration, and the production of native plants to enhance biodiversity.

Nexa is one of the founding companies of Legado das Águas, funded by Votorantim S.A. Today, it is managed by Reservas Votorantim, a company created to establish a new model of private protected area that generate social, environmental, and economic benefits in a sustainable manner.

Water conservation in communities

In **Cerro Lindo**, Peru, we recirculate 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 that 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, 154 water springs have been protected by building 110,096.87 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.

It was the only Brazilian initiative among more than 200 case studies presented during the [Regional Water Dialogs](#) held in Chile in February 2023, organized by the Economic Commission for Latin America and the Caribbean (ECLAC), an United Nations (UN) organization. Our People Stewarding Water project was one of 8 case studies presented during the event and is considered a high-impact and scalable initiative.

Waste, tailings and dam management

GRI 3-3 306-1 SASB EM-MM-540. EM-MM-150a.10a2

Currently, 25.3% of the tailings and waste rock Nexa generated in Brazil and Peru are stored in impoundments. We adhere to rigorous tailings disposal practices and regularly review our impoundment management policy.

We implement best management practices, based on internationally recognized standards, and closely monitor our tailings dam, using a specific tool named SiGBar. This tool follows the guidelines issued by the International Commission on Large Dams in managing and monitoring our 48 tailings and waste dam and dry-stack storage facilities (24 in Brazil and 24 in Peru), and 1 water deposit in Brazil. We also adhere to 6 Golden Rules for Tailing Storage Management, which are mandatory.

Nexa invests in developing new technologies to reuse tailings and waste as part of a circular-economy approach (see more in [Innovation projects](#), in the chapter Culture). We currently use three primary methods for tailings disposal: backfilling, dry stacking and, lastly, tailings impoundments. **GRI 306-2**

A preparatory event for the UN Water Conference that was held in March 2023 in New York (USA) to evaluate progress toward Sustainable Development Goal 6 (water and sanitation).



Management activities for tailings facilities are carried out by an independent firm, which receives information from fortnightly inspections and, on a monthly basis, this firm consolidates all monitoring data to issue stability reports. In addition, the firm periodically visits the facilities for on-site assessments.

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 metric tons)	Non-hazardous (in metric tons)
Total non-mining and smelting waste	14,381.49	11,144.48
Mining and smelting waste		
Tailings	10,817,946.78	1,317,727.79
Waste rock	10,609,180.23	988,457.70
Tailings recycled, reused or remanufactured	2,932,181.95	90,967.00
Waste rock recycled, reused or remanufactured	694,255.00	358,009.00

Note: the increase in hazardous waste is due to the commencement of operations in Aripuanã. Meanwhile, the percentage increase of recycled material (tailings) is attributed to the upcycling of material from industrial limestone dust, located at the Morro Agudo unit.



ALTERNATIVE TAILINGS DISPOSAL METHODS

- **Backfill:** this method involves 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: 44.1% of tailings/waste rock are returned to the mines in the Pasco Complex (Atacocha and El Porvenir), while 51.2% are returned at Cerro Lindo.
- **Dry stacking:** This method involves removing moisture from the tailings/waste rock, which are stacked in layers to form an artificial mountain with minimal environmental impact. This method is in use at our mines in Cerro Lindo, Aripuanã and Vazante to improve the disposal process. In this model, in 2023, we reached 41.87% of the tailings deposited in piles. In Três Marias, during the same year, we initiated and refined an alternative for dry tailings disposal at the smelter operations, demonstrating the feasibility of using this technology for such operations. For more details, regarding the Environmental Licensing section of the Murici deposit raising in Três Marias [in this chapter](#).

Battery recycling

In Juiz de Fora (MG), our battery recycling unit has been operating since 2013, making us the largest battery recycler in Brazil. Recycling various types of batteries, including regular, alkaline, rechargeable, and portable ones, allows us to re-utilize the zinc and other metals from electronic waste in our operations. This approach aligns with a circular economy model, contributing to environmental preservation.

Through a partnership with Green Electron, an electronic waste management company, we have provided more than 30 battery drop-off stations in Juiz de Fora. Initiatives like these, rooted in circular-economy concept, demonstrate our commitment to continually reducing the environmental impacts from our operations.

In 2023, we successfully recycled

124 metric tons

of batteries and power packs.

This effort resulted in the recovery and processing of approximately

24 metric tons of zinc and other metals.

Climate change

GRI 3-3 TCFD Ea Eb

We have implemented projects focused on achieving our strategic goals on this topic, aiming to improve performance in clean energy usage and reduce greenhouse gas (GHG) emissions both within our operations and across the entire business value chain.

- **Scope 3:** in 2023, we improved our reporting by adding three new categories within scope 3, as explained in the [Atmospheric emissions](#) section. This enhancement was a result of our collaboration with the International Zinc Association (IZA) and other industry players to develop and formalize a guide on best practices on Scope 3 reporting.
- **Emissions management:** recognizing the importance of aligning concepts and establishing clear guidelines for our teams, we conducted a three-day greenhouse gas (GHG) training session for 30 Nexa employees in 2023. This training involved both corporate and operational staff members.
- **Carbon credits:** strategic instrument that could accelerate our transition to zero-emission zinc production. Despite challenges in market regulation for trading carbon credits in Brazil, we have accumulated over 100,000 credits for sale, resulting from the transition to biomass steam generation in Três Marias.
- **ESG Platform (ESG Data Management):** in 2023, we conducted a bidding process to acquire an ESG management platform to support our operational and corporate areas. This process progresses successfully and we have now implemented the software for storing information in this reporting cycle. The platform consists mainly of three modules: ESG indicator management through a dashboard, emissions inventory, and reporting modules. The initial phase has been implemented, and we anticipated significant advancements in 2024.

Air emissions

GRI 305-1 305-2 SASB EM-MM0110a.1

We are dedicated to reducing our greenhouse gas (GHG) emissions through innovation, collaboration and technology, with the purpose of achieving one of the lowest carbon footprints in the zinc production industry globally. To achieve this goal, we have set ambitious emissions reduction, focusing on meeting emission standards for both greenhouse gas emissions (GHG) across all operations and fixed source emissions, as well as air quality standards.

In 2023, we enhanced our GHG emissions management efforts by conducting training, standardizing knowledge, and improving data collection process. This allowed us to refine practices, identify areas for improvement, and strengthen data traceability, reinforcing our commitment to aligning our daily operations with emission reduction goals.

We have progressed in managing and reporting our emissions inventory, resulting in a significant increase in tCO₂e reported, especially in Scope 3 emissions. It's important to note that this increase does not mean a rise in emissions quantity; rather, it reflects our transition to a new reporting framework that better aligns with global standards advocated by the International Zinc Association (IZA). This change underscores our progress and maturity in emissions management and control.



We have expanded our reporting to include three new Scope 3 categories: category 1 (consumption of goods and services – upstream), category 10 (sale of metallic zinc – downstream), and category 11 (use of goods and services sold). Category 11 emissions, which are significant in scope, arise from the utilization of Zinal product (limestone), a soil conditioner derived from former tailings of the process. The sale of this product contributes to waste reduction in our operations, marking a step forward in our management practices and aligning more closely with mining and smelting activities.

In terms of direct emissions¹ (Scope 1) of GHGs totaled 244,991.79 tCO₂e in 2023, a 18% increase compared to the previous year due to the start-up of Aripuanã and the expansion of mapping in the industrial processes category at the Juiz de Fora operation. Indirect (scope 2) emissions from purchased electricity amounted to 13,799.95 tCO₂e. Additionally, direct (scope 1) biogenic emissions totaled 7,940.89 tCO₂e.

The emissions intensity, calculated by combining scope 1 and scope 2 emissions (market-based approach), amounted to 0.44 tCO₂e per metric ton of zinc and zinc oxide sold. The intensity is calculated by the sum of scopes 1 and 2 (purchase choice) divided by the volume of zinc and zinc oxide sold. **GRI 305-4**

The implementation of hydrogen kits in our diesel-powered vehicle fleet is nearing completion, with new agreements being finalized. These kits not only contribute to fuel savings but also enhance engine efficiency and reduce atmospheric emissions. By utilizing waste that would otherwise be unused, the solution improves fuel combustion, resulting in potential savings of up to 12% in diesel consumption. Ongoing studies are exploring the possibility of scaling up vehicle retrofits across our operations and with some of our logistics partners.

¹ 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.



GHG EMISSIONS IN 2023 (IN tCO₂e) **GRI 305-1, 305-2, 305-3 SASB EM-MM-110A.1 TCFD MMB**

	2021	2022	2023	% do total em 2023
Scope 1 – direct emissions	247,218.64	208,472.97 ¹	244,991.79	17%
Scope 2 – electricity consumption (market-based approach)¹	7,780.93	12,968.40	13,799.95	1%
Scope 3 – value chain	47,570.63	50,841.13	1,199,463.17	82%
Total²	302,570.20	272,282.49	1,458,254.91	100%

¹ The Scope 2 emissions reported on this page refer to the calculation using the market-based approach. In 2023, we emitted 449,279.04 tCO₂e for the location-based approach.

² The increase in total emissions is mainly due to the addition of scope 3 categories, resulting from advancements following collaboration with IZA and mapping the impact on the value chain.





Energy

GRI 302-1 302-2 302-3 SASB EM-MM-130a.1

Together with the Innovation team, we have developed various initiatives aimed at directly impacting the reduction of Nexa's emissions, aligning with our goal of transitioning to a low-carbon economy.

In 2023, we made significant strides in converting furnaces to **bio-oil**, a key component of our decarbonization strategy set forth until 2030. By the end of the year, we successfully converted 12 furnaces, and efforts are now completing the conversion of the remaining 35. This transitions not only reduces gas emissions by switching fuels but also proves to be economically viable. **SASB EM-MM-110a.2**

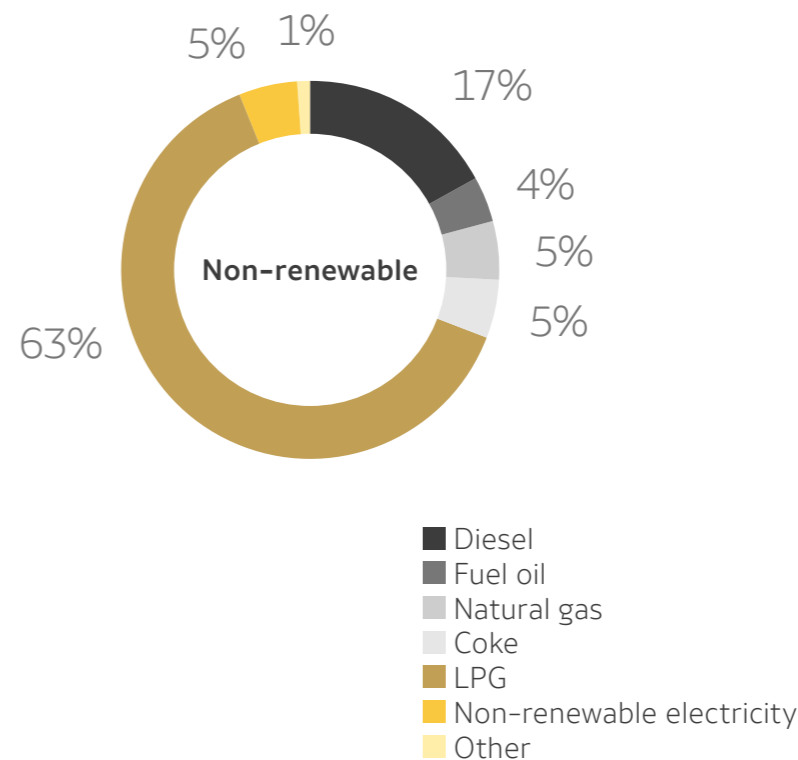
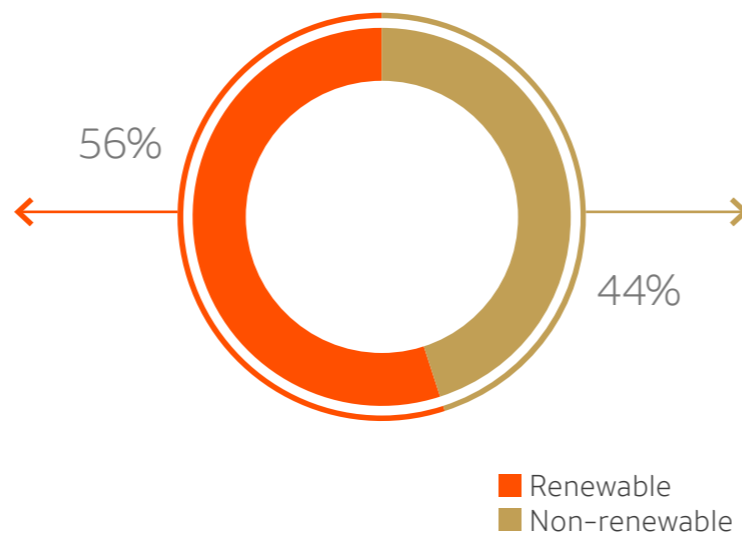
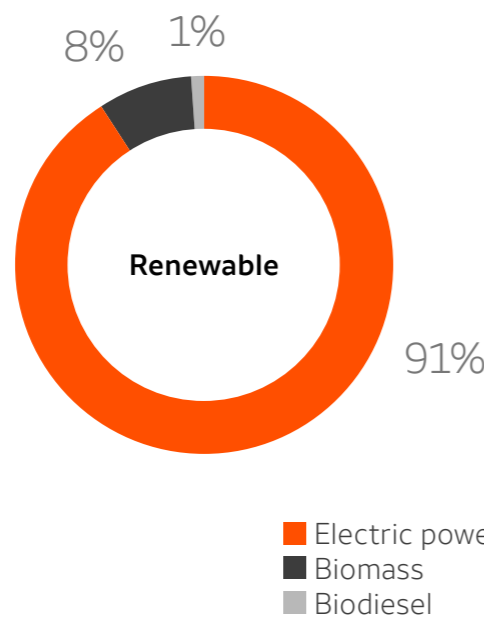
In 2023, we consumed 13,220,567.08 GJ of renewable sources, which represents 56% of our total energy consumption, amounting 23,693,080.78 GJ. In addition to biofuels such as biomass, ethanol, and biodiesel, 95.5% of the electricity consumed came from renewable sources.

Our total non-renewable energy consumption amounted to 10,472,513.70 GJ. Diesel and LPG (liquidized petroleum gas) were the primary non-renewable energy sources, comprising 17% and 63% of our non-renewable energy consumption, respectively. Our energy intensity, calculated as 40.17 GJ per metric ton of zinc and zinc oxide sold, reflects our energy efficiency and management practices in relation to our production output.



Bio-oil, derived from plant tar, is a viscous, dark substance composed of carboxylic acids and phenolic components. It is obtained through the process of charcoal production, filtered and then mixed with additives. Our tests have shown promising results, including lower energy consumption and reduced emission rates of nitrogen oxides (NOx) and sulfur oxides (SOx). This reduction is attributed to bio-oil's lower sulfur content compared to traditional fuels. Additionally, we observed a decrease in the consumption of fuel oil and a decrease in CO₂ emissions during zinc production at the Três Marias smelter. These outcomes are aligned with Nexa's commitments under our ESG strategy, furthering our efforts towards sustainability and environmental stewardship.

CONSUMPTION OF RENEWABLE AND NON-RENEWABLE ENERGY
GRI 302-1 302-2

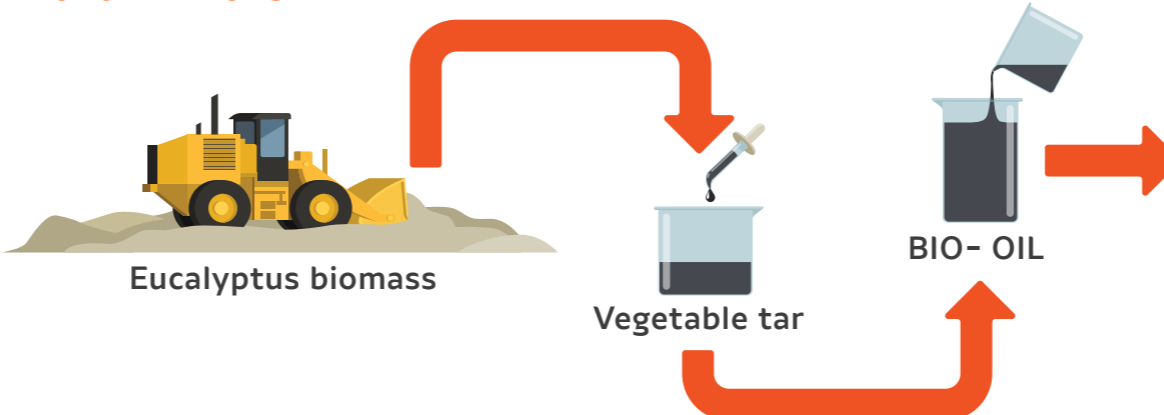




Decarbonization Plan Bio-Oil Project: Três Marias

Bio-oil is a renewable fuel derived from eucalyptus biomass converted into vegetable tar, and its application in all ZnO furnaces has the potential to reduce Nexa's emissions by approximately 25,000 metric tons of CO₂ equivalent per year.

BIO-OIL INPUTS



For each ton of fossil fuel replaced, we reduce

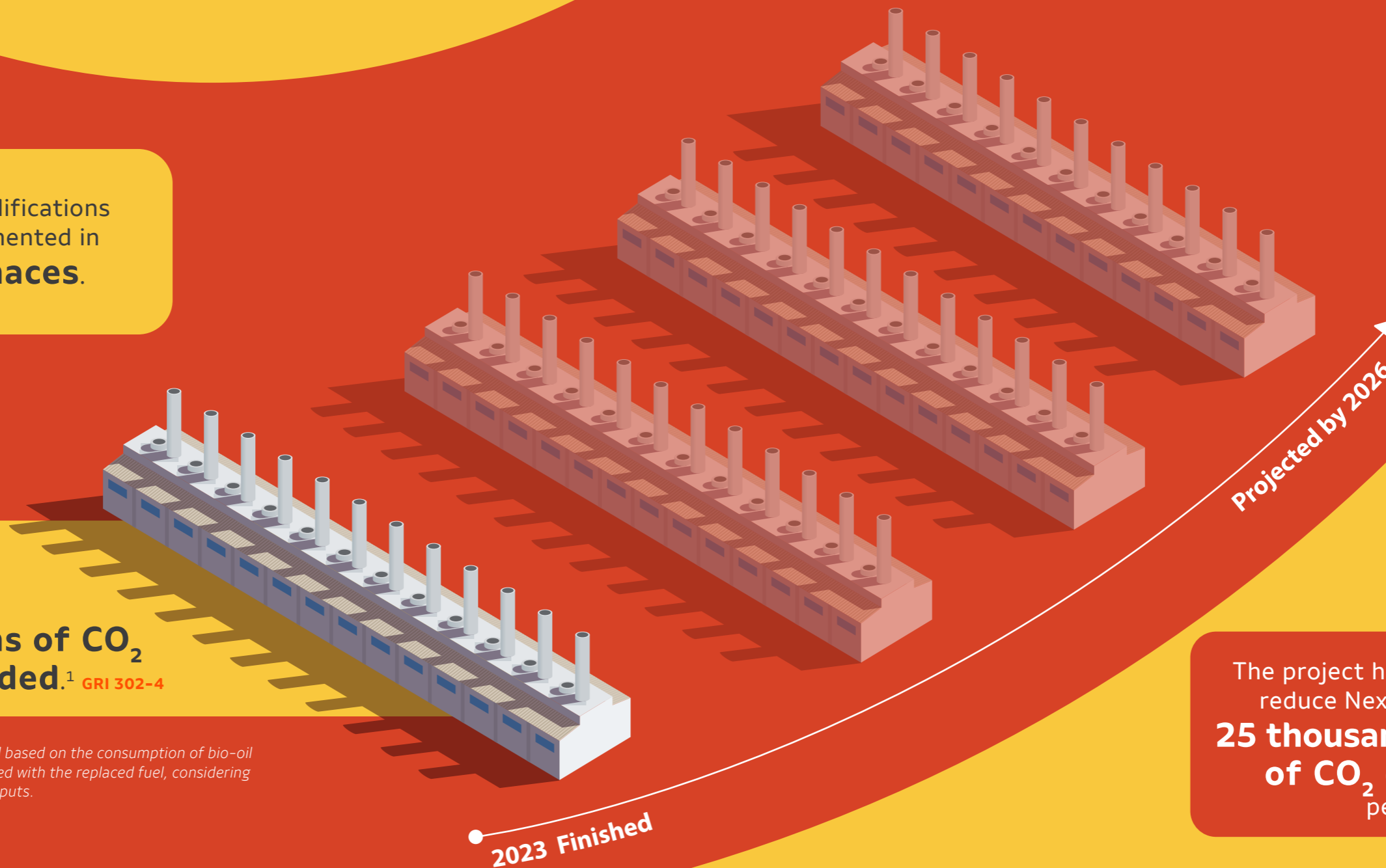
3,11 tCO₂.

We will gradually expand the operation to the other 3 batteries in the coming years.

In **2023**, modifications were implemented in **12 furnaces**.

In **2023**, approximately **1,000 tons of CO₂ were avoided**.¹ GRI 302-4

¹Emissions avoided calculated based on the consumption of bio-oil in the furnaces when compared with the replaced fuel, considering the emission factors of the inputs.



The project has the potential to reduce Nexa's emissions by **25 thousand metric tons of CO₂ equivalent** per year.

APPENDICES

GRI, SASB, and TCFD content indexes.

GENERAL

Information on employees and other workers **GRI 2-7 2-8**

		2021	2022	2023	(%)
Direct employees, interns and apprentices					
Salaried	Men	3,857	3,772	4,064	82%
	Women	832	806	904	18%
Hourly	Men	1,017	926	710	89%
	Women	134	120	92	11%
TOTAL		5,840	5,624	5,770	100%
Interns	Men	95	113	114	48%
	Women	136	134	124	52%
Apprentices	Men	29	17	17	16%
	Women	93	87	89	84%
Third party-sourced					
Permanent ¹	Men	7,662	8,596	8,784	43%
	Women				
Temps ¹	Men	7,624	3,795	8,946	57%
	Women				
TOTAL		15,286	12,391	17,730	100%
TOTAL GERAL		21,479	18,366	23,844	100%

¹ In 2023, the number of contractors began to be accounted for by the HSE team, which monitors the entry and exit of contractors at all business units, including mobile contractors such as truck drivers who enter our premises to load/unload products and make, technical visits, etc. The amount therefore value began to be reported in a consolidated manner, resulting in a sharp increase.

ECONOMIC SERIES

Entities Included in the Sustainability Reporting **GRI 2-2**

Entities included in Financial Reporting¹:

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”

Nexa Recursos Minerais S.A. – “NEXA BR”

Mineração Santa Maria Ltda.

Pollarix S.A. – “Pollarix”²

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. Inc.

Exploraciones Chimborazo Metals & Mining

Joint-Operation

Campos Novos Energia S.A. – “Enercan”

Cia. Minera Shalipayco S.A.C.

¹ 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 80.

² 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.


Direct economic value generated and distributed (US\$ '000) GRI 201-1

Description	2023	2022	2021
1) Revenue			
1.1) Sales of products and services	\$2,837,212.00	3,436,054.00	2,969,421.00
1.2) Other operating revenue (expense)	\$-3,734.00	-698.00	-4,891.00
1.3) Allowance for doubtful accounts	\$-2,235.00	-861.00	-286.00
1.4) Total revenue	\$2,831,243.00	3,434,495.00	2,964,244.00
2) Inputs purchased from third parties	\$-	\$-	\$-
2.1) Raw materials and other production inputs	\$-1,327,680.00	-1,463,472.00	-1,189,728.00
2.2) Material, electricity, outsourced services and other	\$-550,181.34	-566,416.53	-447,305.93
2.3) Impairment of property, plant and equipment	\$-114,643.00	-32,512.00	\$-
3) Gross value added	\$838,738.66	1,372,094.47	1,327,210.07
3.1) Depreciation, amortization and depletion	\$-298,393.00	-287,069.00	-258,711.00
4) Net added value produced	\$540,345.66	1,085,025.47	1,068,499.07
5) Transferred added value	\$-	\$-	\$-
5.1) Equity in income of associates	\$-	\$-	\$-
5.2) Other comprehensive income from written off investments	\$-	\$-	\$-
5.3) Finance income	\$281,388.00	629,180.00	477,849.51
Total transferred added value	\$304,924.00	631,065.00	477,849.51
6) Total added value to be distributed	\$845,269.66	1,716,090.47	1,546,348.58
7) Distribution of added value	\$-	\$-	\$-
7.1) Payroll and related charges	\$271,063.00	259,547.77	223,115.00
7.1.1) Direct compensation	\$165,761.00	165,897.00	145,915.96
7.1.2) Social security charges	\$35,871.00	\$ 29,199.78	23,181.64
7.1.3) Benefits	\$69,431.00	64,450.99	54,017.40
7.2) Taxes and contributions	\$363,025.00	566,501.47	513,793.41
7.2.1) Federal	\$262,629.00	437,527.13	348,368.00
7.2.2) State	\$179,234.00	124,821.78	134,275.00
7.2.3) Municipal	\$1,177.00	38.56	27.41
7.2.4) Deferred taxes	\$-80,015.00	4,114.00	31,123.00
7.3) Interest expense	\$500,377.32	813,647.65	653,353.17

Description	2023	2022	2021
7.3.1) Finance expense	\$443,029.00	762,907.00	614,751.51
7.3.2) Rent	\$57,348.32	50,740.65	38,601.66
7.4) Interest on equity	\$-289,196.00	76,394.00	156,087.00
7.4.1) Net income (loss) for the year	\$-289,196.00	76,394.00	156,087.00
8) Added value distributed	\$845,269.32	1,716,090.89	1,546,348.58

Communication and training on anti-corruption policies and procedures GRI 205-2

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



ENVIRONMENTAL SERIES

Materials used by weight or volume (metric tons) **GRI 301-1**

Material	2021	2022	2023
ROM	12,216,550.14	12,349,816.72	12,915,368.17
Concentrates	1,258,655.58	1,252,839.76	1,704,565.83
Other non-renewable materials (external sources)	278,301.31	8,344,783.73	537,516.74
Other non-renewable materials (internal sources)	188,837.93	78,994.64	395,495.23
Other renewable materials (internal sources) ¹	NA	NA	8,677,210.70

¹ In 2023, we began to consider liquid oxygen as a renewable material, which was not the case in previous years

Recycled input materials used (metric tons) **GRI 301-2**

Material	2021	2022	2023
Total recycled input materials used	3,570,052.00	3,760,995.57	4,069,834.57
Total materials used GRI 301-1	13,942,344.96	13,875,351.60	24,230,156.67 ¹
Percent recycled input materials used	1%	26%	17%

¹ there was a significant increase due to the inclusion of liquid oxygen, which was not accounted for in previous years.

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

	2021	2022	2023
Percentage of its mine sites (by annual production in metric tons) where acid rock drainage is "PREDICTED TO OCCUR"	19%	45%	7%
Percentage of its mine sites (by annual production in metric tons) where acid rock drainage is "ACTIVELY MITIGATED"	0	37%	6%
Percentage of its mine sites (by annual production in metric tons) where acid rock drainage is "UNDER TREATMENT OR REMEDIATION"	34%	13%	2%

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

	2021	2022	2023	In areas with water stress	In areas without water stress
	Total volume	Total volume	Total volume		
Surface water (rivers, creeks and lakes)	16,947.47	16,959.51	34,297.41	-	34,297.41
Freshwater	-	-	-	-	-
Other water	16,947.47	16,959.51	34,297.41	-	34,297.41
Groundwater (aquifers, wells and groundwater drawdown in mines)	94,253.41	119,939.28	110,574.03	-	110,574.03
Freshwater	-	-	-	-	-
Other water	94,253.41	119,939.28	110,574.03	-	110,574.03
Rainwater harvested and stored directly by the organization	7,159.51	6,928.69	7,153.08	-	7,153.08
Freshwater	-	-	-	-	-
Other water	7,159.51	6,928.69	7,153.08	-	7,153.08
Seawater	3,372.91	3,057.82	3,601.66	-	3,601.66
Freshwater	-	-	-	-	-
Other water	3,372.91	3,057.82	3,601.66	-	3,601.66
Produced water (water contained in ores and concentrates)	231.9	220.30	262.34	-	262.34
Freshwater	-	-	-	-	-
Other water	231.9	220.30	262.34	-	262.34


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

	2021		2022		2023	
	Total volume	Total volume	Total volume	In areas with water stress	In areas without water stress	
Third-party water (supplied by utilities and suppliers)	21.56	32.35	36.77	-	36.77	
Freshwater	-	-	-	-	-	
Other water	21.56	32.35	36.77	-	36.77	
Total water withdrawal and consumption by source	121,986.75	147,137.95	155,925.28	-	155,925.28	
Freshwater	-	-	-	-	-	
Other water	121,986.75	147,137.95	155,925.28	-	155,925.28	

Water discharge by source (in megaliters) GRI 303-4 SASB EM-MM-140a.1

	2021		2022		2023	
	Total volume	Total volume	Total volume	In areas with water stress	In areas without water stress	
Surface water (rivers, creeks and lakes)	113,945.49	126,357.56	132,349.29	-	132,349.29	
Freshwater	8,602.94	-	-	-	-	
Other water	105,342.55	126,357.56	132,349.29	-	132,349.29	
Groundwater (aquifers, wells and groundwater drawdown in mines)	3,704.57	3,651.82	2,739.34	-	2,739.34	
Freshwater	3,704.57	-	-	-	-	
Other water	-	3,651.82	2,739.34	-	2,739.34	

Water discharge by source (in megaliters) GRI 303-4 SASB EM-MM-140a.1

	2021		2022		2023	
	Total volume	Total volume	Total volume	In areas with water stress	In areas without water stress	
Seawater	2,097.73	1,864.19	1,971.68	-	1,971.68	
Freshwater	-	-	-	-	-	
Other water	2,097.73	1,864.19	1,971.68	-	1,971.68	
Third-party treatment	19.72	19.02	80.22	-	80.22	
Freshwater	15.62	19.02	-	-	-	
Other water	4.10	-	80.22	-	80.22	
Water withdrawn	1,952.70	1,942.60	2,079.02	-	2,079.02	
Freshwater	12.00	-	-	-	-	
Other water	1,940.70	1,942.60	2,079.02	-	2,079.02	
Other	8,764.76	9,092.75	8,575.43	-	8,575.43	
Freshwater	1,350.70	-	-	-	-	
Other water	7,414.06	9,092.75	8,575.43	-	8,575.43	
Total water discharged	130,484.96	142,927.94	147,900.12	-	147,900.12	
Freshwater	9,981.26	-	-	-	-	
Other water	120,503.70	142,927.94	147,900.12	-	147,900.12	



Habitats protected or restored

GRI 304-3

Size and location of all habitat areas protected or restored (in hectares)			
Biome	Areas where restoration measures have been approved by independent specialists or in accordance with external parameters/protocols		Total area
	Yes	No	
Amazon	15.121573	0	15.121573
Caatinga	0	0	0
Cerrado	19.802	1.28	21.082
Atlantic Forest	2.3296	0	2.3296
Pantanal	0	0	0
Pampas	0	0	0
Other	0	0	0

Total weight of waste by disposal operation

GRI 306-3. 306-4. 306-5 SASB EM-MM150a.4

		Total 2023	
Within the organization	Non-hazardous	Diverted	
		Composting	1,124.11
		Upcycling	429.83
		Recycling	00.00
		Rehabilitation	00.00
	Other	0.00	
	Hazardous	Directed	
		Incineration (or use as fuel)	0.00
		Landfill	606.90
		Co-processing/refining	0.00
		On-site storage	0.00
		Underground waste injection	0.00
		Industrial landfill	90.00
		Other	329.80
Total non-hazardous waste		2,580.64	
Hazardous	Diverted		
	Composting	0.00	
	Upcycling	2,241.11	
	Recycling	0.00	
	Rehabilitation	0.00	
	Outros	0.00	
	Directed		
	Incineration (or use as fuel)	1,032.00	
	Landfill	226.35	
	Co-processing/Refining	0.00	
On-site storage	0.00		
Underground waste injection	0.00		
Industrial landfill	996.92		
Other	0.00		
Total hazardous waste	4,496.38		



Outside the organization

	Diverted	
	Composting	54.96
	Upcycling	1,121.32
	Recycling	3,648.33
	Rehabilitation	883.00
	Other	411.16
	Directed	
Non-hazardous	Incineration (or use as fuel)	0.00
	Landfill	1,511.42
	Co-processing/refining	605.63
	On-site storage	36.14
	Underground waste injection	0.00
	Industrial landfill	132.90
	Other	158.99
	Total non-hazardous waste	8,563.84
	Diverted	
	Composting	0.00
	Upcycling	2,933.55
	Recycling	0.00
	Rehabilitation	0.00
	Other	118.83
	Directed	
Hazardous	Incineration (or use as fuel)	1.20
	Landfill	3,019.35
	Co-processing/refining	2,929.44
	On-site storage	0.00
	Underground waste injection	0.00
	Industrial landfill	804.03
	Other	78.72
	Total hazardous waste	9,885.11
TOTAL WASTE GENERATION		25,525.97
PERCENTAGE OF WASTE DIVERTED FROM DISPOSAL		51%

Significant air emissions (metric tons) GRI 305-7 SASB EM-MM-120a.1

Volume of significant air emissions (category)	2021	2022	2023
NO _x	289	159	860
SO _x	773	1,317	673
Carbon Monoxide (CO)	844	581	351
Particulate Matter (PM)	952	997	2,673 ¹
Other standard emissions categories identified in regulations	0	168	168

Note: 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.

¹ The substantial increase is due to the activation of inactive chimneys in previous years in Juiz de Fora (MG).

Compliance with environmental laws and regulations GRI 2-27

Variables	2021	2022	2023
Total no. of sanctions	31	56	26
Monetary value of significant fines (US\$)	23,363,818.40	1,156,412.82	3,659,237.11
Cases resolved through dispute resolution mechanisms	0	0	0
Cases related to water resources	-	0	0
Cases related to waste management SASB EM-MM-150a.9	NA	0	12 ¹

Note: NA = data not collected or not applicable to the operation.

¹ In 2023, we started reporting data based on the criteria of environmental incidents, as per the SASB standard. Consequently, monitoring that exceeded or did not meet local regulations or legislation began to be considered. In 2023, the main reason for cases related to waste management was leaks in the containment bund.



SOCIAL SERIES

Relation between the lowest salary and the local minimum wage with gender discrimination **GRI 202-1**

Proportion between the lowest salary and the Local Minimum Wage	2021		2022		2023		Unit
	men	women	men	women	men	women	
Region							
Brazil	110%	117%	111%	120%	137%	136%	%
Peru	229%	279%	237%	298%	102%	114%	%
Others countries	372%	277%	420%	277%	389%	305%	%

1 - All corporate and operational units are considered in this indicator.

1 In 'other countries,' the United States and Luxembourg are considered

New hires and turnover **GRI 401-1**

	Men	Women	< 30	30 to 50	> 50	Brazil	Overseas
Total employees	4,774	996	1,003	3,975	792	3,658	2,112
Employees hired	780	260	395	547	26	687	281
Employees terminated	602	176	176	534	68	532	246
Hiring rate	11%	4%	7%	10%	0%	12%	5%
Turnover rate	2%	9%	16%	1%	-5%	4%	2%

Work-related injuries

GRI 403-9 SASB EM-MM-320a.1

Work-related injuries - direct employees	2021	2022	2023
Man-hours worked (direct employees)	12,046,785.23	13,026,735.62	12,466,937
Total number of injuries (level 1)	42	42	43
Total number of no-lost-time injuries (levels 2 and 3)	17	12	20
Total number of lost-time injuries (levels 4 to 6)	10	12	13
Fatalities	0	0	0
Injury rate (TL) - 200.00 basis	0.45	0.37	0.53
Lost time injury frequency rate - 200000	0.17	0.18	1.04
Lost-time and no-lost-time injury frequency rate - 200000	0.45	0.37	2.65
Near miss rate - 200000	1.98	3.65	6.00

Occupational injuries - fixed contractors	2021	2022	2023
Man-hours worked (fixed contractors)	20,239,578.10	20,730,811.91	20,069,635
Total number of injuries (level 1)	81	59	73
Total number of no-lost-time injuries (levels 2 and 3)	27	23	21
Total number of lost-time injuries (levels 4 to 6)	17	16	21
Fatalities	0	1	0
Injury rate (TL) - 200.00 basis	0.45	0.38	0.42
Lost time injury frequency rate - 200000	0.17	0.15	1.05
Lost-time and no-lost-time injury frequency rate - 200000	0.43	0.38	2.09
Near miss rate - 200000	0.56	1.03	1.05



Occupational injuries – mobile contractors	2021	2022	2023
Man-hours worked (mobile contractors)	16,801,122.55	12,104,829.18	9,303,659
Total number of injuries (level 1)	39	21	34
Total number of no-lost-time injuries (levels 2 and 3)	21	21	12
Total number of lost-time injuries (levels 4 to 6)	3	6	3
Fatalities	0	0	0
Injury rate (TL) – 200.00 basis	0.2857	0.45	0.32
Lost time injury frequency rate – 200000	0.04	0.10	0.32
Lost-time and no-lost-time injury frequency rate – 200000	0.29	0.45	1.61
Near miss rate – 200000	0.29	0.83	1.25

Average hours of training per year per employee GRI 404-1

		2021	2022	2023
Executive/CEO	Women	0	0	1
	Men	0	0.45	0
Middle Managers	Women	10	19.16	21
	Men	6	40.76	42
Coordinator/Consultant	Women	6	13.60	11
	Men	7	16.05	10
Technician/Analyst/Supervisor	Women	19	24.02	54
	Men	28	25.76	83
Trainees	Women	0	0	0
	Men	0	0	0
Operational	Women	16	16.17	32
	Men	18	24.89	31
Interns	Women	6	27.49	48
	Men	5	31.85	48
Apprentices	Women	4	20.49	37
	Men	3	10.40	60
Total	Women	13	19	36
	Men	18	25	40


Diversity of governance bodies and employees GRI 405-1

Direct employees		Total	< 30	30 to 50	> 50
Board	Men	NA	NA	NA	NA
	Women	NA	NA	NA	NA
Chief Executive Officer	Men	7	0	2	5
	Women	1	0	1	0
Manager/General Manager	Men	109	1	87	21
	Women	38	0	36	2
Coordinator/Consultant	Men	415	29	331	55
	Women	165	21	136	8
Technician/Analyst/Supervisor	Men	967	95	762	110
	Women	321	111	196	5
Operational	Men	3,276	565	2,136	575
	Women	480	181	288	11
Interns	Men	114	108	6	0
	Women	124	115	9	0
Apprentices	Homem	17	89	0	0
	Women	89	17	0	0

Note: NA = Information Not Available.

Minority membership	2021	2022	2023
Employees over 50	830	744	792
Women	889	1,266	1,209
Composition of governance body (Board of Directors and Executive Board)	2021	2022	2023
Male	17	14	15
Women	2	2	3
Composition of governance body (Board of Directors and Executive Board)	2021	2022	2023
Under 30	-	-	-
30 to 50	5	3	4
Over 50	13	13	14



Base salary and compensation ratio between women and men **GRI 405-2**

Position	2021		2022		2023	
	Salary	Compensation	Salary	Compensation	Salary	Compensation
Executive/CEO	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported
Middle Managers	0.99	0.99	0.94	0.94	1.05	1.06
Coordinator/ Consultant	1.12	1.11	1.06	1.06	1.00	1.01
Technician/ Analyst/ Supervisor	0.95	0.97	0.94	0.94	1.07	1.07
Operational	1.55	1.55	1.60	1.54	1.31	1.31

Incidents of discrimination and corrective actions taken

GRI 406-1

Incidents of discrimination	2021	2022	2023
Reports received by our Ethics Hotline during the reporting period	59	130	224
Cases received during the reporting period	8	14	61
Cases investigated and deemed unsubstantiated	37	62	69
Cases investigated and deemed substantiated	14	54	94

Employee training on human rights policies or procedures **GRI 2016 412-2**

Employees trained during the reporting period	2021	2022	2023
Number of employees trained on human rights policies or procedures	1,771	4,511	5,430
Percentage of employees trained on human rights policies or procedures	32%	75%	89%

Non-compliance with laws and regulations – labor and tax **GRI 2-27**

Variables	2021	2022	2023
Total no. of sanctions	-	-	-
Monetary value of significant fines (US\$)	1,766,809.98	89,778,298.87	21,008,552.99
Cases resolved through dispute resolution mechanisms		0	0



SECTOR DISCLOSURES

Land disturbed or rehabilitated (hectares) **MM1**

Amount of land disturbed or rehabilitated	2021	2022	2023
Total land disturbed and not yet reclaimed	2,394.5	2,394.6	2,929,8 ¹
Total amount of land newly disturbed within the reporting period (B)	13,6	2,1	22
Total amount of land newly rehabilitated within the reporting period to the agreed end use	13,9	0,5	281,7
Total land disturbed and not yet reclaimed	2,384.3	2,396.2	2,670.1

¹ In previous reports, the declared values followed a historical trend (since 2018) plus any changes made in the corresponding year. This report introduces a change to this criteria. After a critical analysis of the data, the value considered as **Total land disturbed and not yet reclaimed** is equivalent to the consolidated use declared in the Rural Environmental Registry (CAR). This category includes all areas disturbed by the company's activities or areas acquired by Nexa and under its responsibility, affected by human activity and which will be subject to decommissioning, reclamation or revegetation in the future. The initial value of Total land disturbed and not yet reclaimed has therefore changed due to the change in criteria. **GRI 2-4**

Sites with Biodiversity Management Plans (PGB) **MM2**

Number of sites that have been identified as requiring a Biodiversity Management Plan (PGB)	2021	2022	2023
Total number of sites (G4-EN11)	8	9	9
Total number of sites that have been identified as requiring a PGB	3	3	3
Total percentage of sites that have been identified as requiring a PGB	100%	100%	100%

Operations with closure plans **MM10**

Data/year	2021	2022	2023
Percentage of operations that have closure plans	100%	100%	100%
Overall financial provision for closure	\$ 217,269,515.66	\$ 291,758,033.86	\$ 307,797,000

Coverage: Entities included in the Report **GRI 2-2**

Indicador	Limite de Abrangência
2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20 2-22, 2-23, 2-24, 2-25, 2-26, 2-28, 2-29, 201-1, 204-1, 206-1, 403-1, 403-2, 403-3, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10 MM4, EM-MM-320a.1	Offices São Paulo/Belo Horizonte, Lima, Luxembourg, USA • Units Aripuanã, Atacocha, Cajamarquilla, Cerro Lindo, El Porvenir, Juiz de Fora, Morro Agudo, Três Marias and Vazante • Mineral Exploration Projects
302-1, 302-2, 302-3, 305-1, 305-2, 305-3, 305-4, EM-MM-110a.1, EM-MM-110a.2, EM-MM-130a.1	Offices São Paulo/Belo Horizonte, Lima • Units Aripuanã, Atacocha, Cajamarquilla, Cerro Lindo, El Porvenir, Juiz de Fora, Morro Agudo, Três Marias and Vazante • Mineral Exploration Projects
2-7, 2-8, 2-21, 2-27, 2-30, 3-1, 3-2, 3-3, 202-1, 205-2, 205-3, 206-1, 401-1, 404-1, 404-3, 405-1, 405-2, 406-1, 407-1, 412-2, 412-3, EM-MM-210a.1, EM-MM-210a.2, EM-MM-210a.3, EM-MM-210b.1, EM-MM-210b.2, EM-MM-310a.1, EM-MM-310a.2, EM-MM-510a.1	Offices São Paulo/Belo Horizonte, Lima, Luxembourg, USA • Units Aripuanã, Atacocha, Cajamarquilla, Cerro Lindo, El Porvenir, Juiz de Fora, Morro Agudo, Três Marias and Vazante
308-1, 308-2, 408-1, 409-1, 414-1, 419-1	Offices São Paulo, Lima • Units Aripuanã, Atacocha, Cajamarquilla, Cerro Lindo, El Porvenir, Juiz de Fora, Morro Agudo, Três Marias, and Vazante
301-1, 301-2, 303-1, 303-2, 303-3, 303-4, 303-5, 304-3, 305-7, 306-3, 306-4, 306-5, 413-1, MM1, MM2, MM3, MM5, MM6, MM9, G4-EN31, EM-MM-120a.1, EM-MM-150a.1, EM-MM-150a.2, EM-MM-150a.3, EM-MM-160a.1, EM-MM-160a.2, EM-MM-160a.3, EM-MM-140a.1	Units Aripuanã, Atacocha, Cajamarquilla, Cerro Lindo, El Porvenir, Juiz de Fora, Morro Agudo, Três Marias and Vazante



GRI, SASB AND TCFD CONTENT INDEX

GRI Standards

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

GRI Standard	Contents	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>3</u>	-	-	-
	2-3 Reporting period, frequency and contact point	<u>3</u>	-	-	-
	2-4 Restatements of information	<u>80</u>	-	-	-
	2-5 External assurance	<u>3</u>	-	-	-
Activities and workers					
	2-6 Activities, value chain and other business relationships	<u>6</u>	-	-	-
	2-7 Employees	<u>37, 70</u>	-	6	8
GRI 2: General disclosures 2021	2-8 Workers who are not employees	<u>17, 70</u>	-	6	8
Governance					
	2-9 Governance structure and composition	<u>21</u>	-	-	-
	2-10 Nomination and selection of the highest governance body	<u>23</u>	-	-	-
	2-11 Chairman of the highest governance body	<u>22, 23</u>	-	-	-
	2-12 Role of the highest governance body in overseeing the management of impacts	<u>21</u>	-	-	-
	2-13 Delegation of responsibility for managing impacts	<u>23</u>	-	-	-
	2-14 Highest governance body's role in sustainability reporting	<u>3, 21</u>	-	-	-
	2-15 Conflicts of interests	<u>26</u>	-	-	-



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG	
GRI 2: General disclosures 2021	2-16 Communicating critical concerns	<u>21</u>	-	-	-	
	2-17 Collective knowledge of highest governance body	<u>42</u>	-	-	-	
	2-18 Evaluation of the performance of the highest governance body	<u>23</u>	-	-	-	
	2-19 Compensation policies	<u>42</u>	-	-	-	
	2-20 Process for determining compensation	<u>23</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 .	-	-	-	
	Strategy, policies and practices					
	2-22 Statement on sustainable development strategy	<u>5</u>	-	-	-	
	2-23 Policy commitments	<u>27</u>	-	10	16	
	2-24 Embedding policy commitments	<u>27</u>	-	-	-	
	2-25 Processes to remediate negative impacts	<u>26, 29</u>	-	-	-	
	2-26 Mechanisms for seeking advice and raising concerns	<u>26</u>	-	10	16	
	2-27 Compliance with laws and regulations	<u>75, 79</u>	-	-	-	
	2-28 Membership of associations	<u>71</u>	-	-	-	
Stakeholder engagement						
2-29 Approach to stakeholder engagement	<u>71</u>	-	-	-		
2-30 Collective bargaining agreements	<u>37</u> . In the year, 87% of employees were covered by collective bargaining agreements.	-	-	-		
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>	-	-	-	
	3-2 List of material topics	<u>9</u>	-	-	-	



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
GRI 200 ECONOMIC SERIES STANDARDS					
Standard disclosures					
Economic performance					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>16</u>	-	-	-
GRI 201: Financial performance 2016	201-1 Direct economic value generated and distributed	<u>71</u>	-	-	2, 5, 8, 9
Market presence					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>40</u>	-	-	-
GRI 202: Market presence 2016	202-1 Ratio of standard entry level wage by gender compared to local minimum wage	<u>76</u>	-	-	1, 5, 8
Indirect economic impacts					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>54</u>	-	-	-
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	<u>56, 57</u>	-	-	-
Procurement practices					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>50</u>	-	-	-
GRI 204: Procurement practices 2016	204-1 Proportion of spending on locally-based suppliers	<u>51</u>	-	-	12
Anti-corruption					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>25</u>	-	-	-
GRI 205: Anti-corruption 2016	205-2 Communication and training on anti-corruption policies and procedures	<u>25</u>	-	10	16
	205-3 Confirmed incidents of corruption and actions taken	<u>25</u>	-	10	16
Anti-competitive behavior					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>25</u>	-	-	-
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<u>25</u>	-	10	8, 16, 17



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
GRI 300 ENVIRONMENTAL SERIES STANDARDS					
Standard disclosures					
Materials					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>64</u>	-	-	-
GRI 301: Materials 2016	301-1 Materials used by weight or volume	<u>72</u>	-	7, 8	8, 12
	301-2 Recycled input materials used	<u>72</u>	-	8	8, 12
Energy					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>66</u>	-	-	-
GRI 302: Energy 2016	302-1 Energy consumption within the organization	<u>68</u>	-	7, 8	7, 8, 12, 13
	302-2 Energy consumption outside of the organization	<u>68</u>	-	8	7, 8, 12, 13
	302-3 Energy intensity	<u>68</u>	-	8	7, 8, 12, 13
	302-4 Reduction of energy consumption	<u>69</u>	-	8	7, 8, 12, 13
Water and effluents					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>63</u>	-	-	-
GRI 303: Water 2018	303-1 Interactions with water as a shared resource	<u>63</u>	-	7, 8	6
	303-2 Management of water discharge related impacts	<u>63</u>	-	7, 8	6
	303-3 Water withdrawal	<u>72</u>	-	8	6
	303-4 Water discharge	<u>73</u>	-	8	3, 6, 12, 14
	303-5 Water consumption	<u>63</u>	-	8	6
Biodiversity					
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	<u>74</u>	-	7	13, 15
Emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>66</u>	-	-	-



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	<u>67</u>	-	7, 8	3, 12, 13, 14, 15
	305-2 Energy indirect (Scope 2) GHG emissions	<u>67</u>	-	7, 8	3, 12, 13, 14, 15
	305-3 Other indirect (Scope 3) GHG emissions	<u>67</u>	-	7, 8	3, 12, 13, 14, 15
	305-4 GHG emissions intensity	<u>67</u>	-	8	14, 15
	305-7 NO _x , SO _x , and other significant air emissions	<u>76</u>	-	-	-
Waste					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>64</u>	-	-	-
GRI 306: Waste 2020	306-1 Waste generation and significant impacts related to waste	<u>64</u>	-	8	3, 6, 12, 14, 15
	306-2 Management of significant impact related to waste	<u>64</u>	-	8	3, 6, 12, 14, 15
	306-3 Waste by type and disposal method	<u>65, 74</u>	-	8	3, 6, 12, 14, 15
	306-4 Waste diverted from disposal	<u>74</u>	-	8	3, 6, 12, 14, 15
	306-5 Waste directed to disposal	<u>74</u>	-	8	3, 6, 12, 14, 15
Supplier environmental assessment					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>50</u>	-	-	-
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	<u>52</u>	-	8	-
	308-2 Negative environmental impacts in the supply chain and actions taken	<u>52</u>	-	8	-
GRI 400 SOCIAL SERIES STANDARDS					
Standard disclosures					
Employment					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>40</u>	-	-	-
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	<u>76</u>	-	6	5, 8
Occupational health and safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>43</u>	-	-	-



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
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>46</u>	-	-	3,8
	403-5 Worker training on occupational health and safety	<u>43</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>44</u>	-	-	8
	403-8 Workers covered by an occupational health and safety management system	<u>56</u>	-	-	8
	403-9 Work-related injuries	<u>76</u>	-	-	8
	403-10 Work-related ill health	<u>45</u>	-	-	3
		Training and education			
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>40</u>	-	-	-
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	<u>46, 77</u>	-	6	4, 5, 8
	404-3 Percentage of employees receiving regular performance and career development reviews	<u>41</u>	-	6	5, 8
	Diversity and equal opportunity				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>38</u>	-	-	-
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	<u>37, 78</u>	-	6	5, 8
	405-2 Ratio of basic salary and remuneration of women to men	<u>79</u>	-	6	5, 8, 16
	Non-discrimination				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>25</u>	-	-	-
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	<u>79</u>	-	6	5, 8, 16
	Freedom of association and collective bargaining				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>52</u>	-	-	-
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>52</u>	-	5	8, 16



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
	Child labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>25</u>	-	-	-
GRI 408: Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	<u>52</u>	-	5	8, 16
	Forced or compulsory labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>25</u>	-	-	-
GRI 409: Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	<u>52</u>	-	4	8, 16
	Human rights assessment				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>50</u>	-	-	-
GRI 412: Human rights assessment 2016	412-2 Employee training on human rights policies or procedures	<u>79</u>	-	1	-
	412-3 Significant investment agreements and contracts that include human rights clauses	<u>51</u>	-	-	-
	Local communities				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>54</u>	-	-	-
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	<u>54</u>	-	1	-
	Supplier social assessment				
GRI 3: Material Topics 2021	3-3 Management of material topics	<u>50</u>	-	-	-
GRI 414: Supplier social assessment 2016	414-1 New suppliers that were screened using social criteria	<u>52</u>	-	2	5, 8, 16



GRI Standard	Contents	Page or omission	Assurance	Global Compact	SDG
MINING SECTOR					
Standard disclosures					
	MM1 Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	<u>80</u>	-	-	-
	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>80</u>	-	-	-
	MM3 Total amounts of overburden, rock, tailings, and sludges and their associated risks	<u>65</u>	-	-	-
	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>59</u>	-	-	-
	MM6 Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples	<u>28</u>	-	-	-
	MM9 Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	<u>58</u>	-	-	-
	MM10 Number and percentage of operations with closure plans	<u>60</u>	-	-	-



SASB Standard

SASB Standard	Contents	Page or omission	Assurance	Global Compact	SDG
GHG Emissions	EM-MM-110a.1. Gross global scope 1 emissions, percentage covered under emissions-limiting regulations	<u>66</u>	-	7, 8	3, 12, 13, 14, 15
	EM-MM-110a.2. Description of long-term and short-term strategy or plan to manage scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets.	<u>67</u>	-	7, 8	3, 12, 13, 14, 15
Air quality	EM-MM-120a.1. Air emissions for the following pollutants: (1) CO, (2) NOx (excluding N ₂ O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	<u>75</u>	-	7, 8	3, 12, 13, 14, 15
Energy management	EM-MM-130a.1. (1) Total energy consumed, (2) percentage of grid electricity, (3) percentage renewable	<u>68</u>	-	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	<u>72</u>	-	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 2023.	-	7, 8	3, 6
Waste & Hazardous Materials Management	EM-MM-150a.4. Total weight of non-mineral waste generated	<u>65</u>	-	7	12, 13, 14, 15
	EM-MM-150a.5. Total weight of waste rock generated	<u>65</u>	-	7	12, 13, 14, 15
	EM-MM-150a.6. Total weight of waste rock generated	<u>65</u>	-	7, 8	14, 15
	EM-MM-150a.7. Total weight of hazardous waste generated	<u>65</u>	-	7, 8	14, 15
	EM-MM-150a.8. Total weight of hazardous waste recycled	<u>65</u>	-	7, 8	14, 15
	EM-MM-150a.9. Number of significant incidents associated with hazardous materials and waste management	<u>75</u>	-	7, 8	14, 15
	EM-MM-150a.10. Description of waste and hazardous materials management policies and procedures for active and inactive operations	<u>64</u>	-	7, 8	14, 15
Biodiversity Impacts	EM-MM-160a.1. Description of environmental management policies and practices for active sites	<u>62</u>	-	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	<u>72</u>	-	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	<u>34</u>	-	7, 8	14, 15



SASB Standard	Contents	Page or omission	Assurance	Global Compact	SDG
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	-	1	16
	EM-MM-210a.2. Percentage of (1) proved and (2) probable reserves in or near indigenous land	<u>34</u>	-	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	<u>28</u>	-	1, 2	16
Community relations	EM-MM-210b.1. Discussion of process to manage risks and opportunities associated with community rights and interests	<u>54</u>	-	1, 2	16
	EM-MM-210b.2. Number and duration of strikes and lockouts	<u>37</u>	-	-	-
Labor relations	EM-MM-310a.2 Number and duration of strikes and lockouts	<u>37</u>	-	3	8
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>76</u>	-	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>27</u>	-	10	16
	EM-MM-510a.2. Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Not applicable	-	10	16
Tailings storage facilities management	EM-MM-540.a1 Tailings storage facility inventory		For strategy or management reasons, Nexa is not reporting this information in the current year. There is a task force working to structure the management of this data.	-	-
	EM-MM-540.a2 Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	<u>61</u>	-	7, 8	14, 15
	EM-MM-540.a3 Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	<u>61</u>	-	7, 8	14, 15
Activity metrics	EM-MM-000.A Production of (1) metal ores and (2) finished metal products	<u>20</u>	-	-	-
	EM-MM-000.B Total number of employees, percentage contractors	<u>37</u>	-	-	8



TCFD Standard

TCFD Standard	Contents	Page or omission	Assurance	Global Compact	SDG
Governance	a) Describe the board's oversight of climate-related risks and opportunities	23	-	7, 8	13
	b) Describe management's role in assessing and managing climate-related risks and opportunities	<u>29</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>66</u>	-	7, 8	13
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	<u>66</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>14</u>	-	7, 8	13
Risk management	a) Describe the organization's processes for identifying and assessing climate-related risks	<u>29</u>	-	7, 8	13
	a) Describe the organization's processes for managing climate-related risks	<u>29</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>29</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>29</u>	-	7, 8	13
	b) Disclose Scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions, and the related risks	<u>67</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>29</u>	-	7, 8	13

INDEPENDENT ASSURANCE CLAIM – BUREAU VERITAS

INTRODUCTION

O Bureau Veritas Certification Brazil (Bureau Veritas) was contracted by **Nexa Resources S.A. (Nexa)**, to conduct an independent assurance of the Nexa 2023 Annual Report (hereinafter referred to as the Report).

The information published in the report is the sole responsibility of NEXA's management. Our responsibility is defined according to the scope below.

SCOPE OF WORK

The scope of this verification covered the standards and Principles¹ of the Global Reporting InitiativeTM for Sustainability Reports and refers to the rendering of accounts for the period from January 1, 2023 to December 31, 2023.

RESPONSIBILITIES OF NEXA AND BUREAU VERITAS

The preparation, presentation and content of the Report are the sole responsibility of NEXA's management. Bureau Veritas is responsible for providing an independent opinion to Stakeholders in accordance with the scope of work defined in this claim.

Nexa's Report was prepared in accordance with the guidelines of the Global Reporting Initiative (GRI-Standards); Sustainability Accounting Standards Board (SASB), Task Force on Climate Related Financial Disclosures and the Company's internal controls determined to be necessary to enable the preparation of this information free from material misstatement, whether due to fraud or error.

METHODOLOGY

The assurance included the following activities:

1. Interviews with those responsible for the material topics and content of the Report;
2. Remote verification of corporate and operational processes (verification of material GRI, SASB and TCFD indicators and information sampling);
3. Analysis of documentary evidence provided by NEXA for the period covered by the Report (2023);
4. Analysis of stakeholder engagement activities developed by NEXA;
5. Evaluation of the system used to determine the material aspects included in the Report, considering the context of sustainability and scope of the published information.

The verification level adopted was Limited, in accordance with the requirements of the ISAE 3000² standard, incorporated into Bureau Veritas' internal verification protocols.

LIMITATIONS AND EXCLUSIONS

Any evaluation of information related to:

- Activities outside the reported period;
- Position claims (expressions of opinion, belief, objectives or future intentions) by NEXA;

- Accuracy of economic and financial data contained in this Report, extracted from financial statements, verified by independent auditors;
- Inventory of Greenhouse Gas (GHG) emissions, including energy data (verified in a separate process by another Bureau Veritas team);
- Data and information from affiliated companies or outsourced employees, over which there is no operational control by NEXA.

The following limitations have been applied to this verification:

- The principles of Accuracy and Reliability of data were verified on a sample basis, exclusively in the light of the information and data related to the material topics presented in the Report;
- The economic information presented in the Report was specifically verified against the GRI Balance and Completeness principles.

OPINION ON THE REPORT AND THE ASSURANCE PROCESS

- In 2023, Nexa made progress in revising the materiality matrix. The process, which takes place every four years or whenever necessary, was conducted by an external consultant and was based on the guidelines of the Global Reporting Initiative (GRI), the International Council on Mining and Metals (ICMM), Ecovadis, the Dow Jones Sustainability Index (DJSI) and the Sustainability Accounting Standards Board (SASB), among others. The materiality review had more than 600 participants,

1. Accuracy, Balance, Clarity, Comparability, Completeness, Sustainability Context, Timeliness and Verifiability.

2. International Standard on Assurance Engagements 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information.

considering the relationship audiences (employees, clients, shareholders, investors, suppliers, public authorities, sector agencies and communities), who, through online questionnaires, interviews and 30 conversation circles in Brazil and Peru, were able to contribute to the process.

- At the end of this process, Nexa went from 12 to 8 material topics, reflecting the simplification movement that has been conducted in the company. This was done by evaluation the current and potential impacts of each topic, considering environmental and financial impacts (double materiality), considering the 2030 Values and Commitments in line with the 2030 Agenda of the Sustainable Development Goals (SDGs) of the United Nations (UN).
- In our understanding, NEXA's Sustainability Report presents the impacts of the company's activities in a balanced way;
- NEXA has demonstrated an adequate data collection and compilation method in relation to the GRI Reliability Principle, SASB and TCFD indicators;
- The inconsistencies found in the Report were adjusted during the process and were satisfactorily corrected;
- The relevant facts that occurred until the publication of the Report were included in the document. In 2024, a fatal accident occurred at the El Povenir site and part of the Morro Agudo operation was closed. Both information were reported by Nexa.

CONCLUSION

As a result of our verification process, nothing has come to our attention that could indicate that:

- The information provided in the Report is not balanced, consistent and reliable;
- NEXA has not established appropriate systems for the collection, compilation and analysis of quantitative and qualitative data used in the Report;
- The Report does not adhere to the Principles for defining content and quality of the GRI, SASB and TCFD Standard for sustainability reporting.

CLAIM OF INDEPENDENCE AND IMPARTIALITY

Bureau Veritas Certification is an independent professional services company specializing in Quality, Health, Safety, Social and Environmental management with over 195 years of experience in independent evaluation services.

Bureau Veritas has implemented and applies a Code of Ethics throughout its business to ensure that its employees maintain the highest standards in their day-to-day activities. We are particularly attentive to prevention with regard to conflict of interest.

The verification team does not have any other link with NEXA, other than the independent verification of the Sustainability Report. We understand that there is no conflict between other services performed by Bureau Veritas and this verification performed by our team.

The team that conducted this verification for NEXA has extensive knowledge in verifying information and systems involving environmental, social, health, safety and ethical topics, which combined with experience in these areas, allows us a clear understanding of the presentation and verification of good corporate responsibility practices.

CONTACT

<https://www.bureauveritas.com.br/pt-br/fale-com-gente>

São Paulo, March 2024.



Bruno Moreira

Technical Certification Manager
Bureau Veritas Certification – Brazil



Nádia Lúcia Zuca Simões

Lead auditor – Assurance Sustainability Reports (ASR)
Bureau Veritas Certification – Brazil

This report contains certain forward-looking information and forward-looking statements as defined in applicable securities laws. All statements other than statements of historical fact are forward-looking statements that involves 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.

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 (www.sedar.com) and on Edgar (www.sec.gov).

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
 Luís Ermírio de Moraes
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For the information verification and analysis for the 2023 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 **GRI 2-2-3**

Management Team

Ignacio Rosado
 President and Chief Executive Officer

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 Senior Vice President of Finance and Group Chief Financial Officer

Jones Aparecido Belther
 Senior Vice President of Mineral Exploration and Business Development

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

Credits

General Coordination: Technical Services and Projects, Human Resources and Corporate Affairs: Marcio Godoy, Gustavo Cicilini

Technical Services and Projects: Adriana Vasconcelos Valente

Human Resources and Corporate Affairs: Paulo Raul Bezerra Guedes

Coordination: Icaro Coloian Zapparoli, Julia Morelli Faria, Tula Maria Silva Moreira

Teams:

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GRI, SASB and TCFD PMO Consulting: Ferso ESG

External verification: Bureau Veritas S.A.

Translation: Latin American Translators & Interpreters

Photos: Nexa Image Database

Graphic Design: Adesign

nexa