



Sustainability  
**Report**  
2024

**MRN**

# Summary





# 01

## Introduction

*Natalina Couto,  
technical manager  
Drying area.*

## Message from the CEO

**For more than four decades, we have steadfastly upheld our commitment to sustainable development in the Amazon. Throughout this journey, we have grown alongside the region, forging lasting relationships that generate shared value for today's communities and future generations.**

In 2024, we made progress on key benchmarks that support the continuity of our operations and pave the way for a new development cycle. Obtaining the Preliminary License (LP) for the Novas Minas Project (PNM) confirmed the socio-environmental viability for a key development that is key to the future for both MRN and the region where it operates. In parallel, progress on the Transmission Line Project (TLP) not only ensures continuity of operations but also marks a decisive step toward decarbonizing our energy matrix. Once implemented, the project has the potential to reduce our total emissions by approximately 25%.

Commitment to excellence in environmental, social, and governance practices remains a core priority. We renewed the *Aluminium Stewardship Initiative* (ASI) certifications, both the Performance Standard and the Chain of Custody, upholding international best practices in the mining sector. Performance was also bolstered to align with additional international standards, such as the *Global Industry Standard on Tailings Management* (GISTM), in a continuous effort to enhance our processes.

**Innovation took a significant step forward with the creation of a dedicated department, underscoring the company's clear ambition to integrate modern technologies, agile processes, and fresh thinking to generate positive impacts. The new department works across all teams, empowering employees to develop practical solutions that enhance operational performance.**

On the social front, we place strong emphasis on recognizing and integrating local talent. Investments are directed toward programs that increase the representation of local community members and women across the workforce. And we remain firmly committed to generating and sharing value in the region. In 2024, more than R\$ 717 million was invested in suppliers based in western Pará, reinforcing our dedication to strengthening the local economy. An additional R\$ 23.3 million was allocated to social projects beyond those already required under environmental licensing.

We look to the coming years with confidence and a clear sense of purpose. Advancing the PNM licensing, expanding active stakeholder engagement, and consolidating an increasingly efficient, inclusive and low-carbon operation are key priorities on our short- and medium-term agendas.

MRN will continue to invest in building a positive legacy for the Amazon. Guided by responsibility, innovation and commitment, this story continues to be shaped alongside those who share a common purpose: producing bauxite that contributes to a more sustainable world.



**Guido Germani**  
CEO, Mineração  
Rio do Norte  
(MRN)

## Message from the Board of Directors

We are extremely pleased to present the 2024 Sustainability Report for Mineração Rio do Norte (MRN), prepared in alignment with the latest international reporting standards of the Global Reporting Initiative (GRI). In a clear demonstration of institutional leadership, MRN proactively adopted the GRI 14: Mining Sector 2024 Standard well ahead of the required 2026 deadline, reaffirming its commitment to transparency, accountability and continuous improvement.

**A key achievement in 2024 was the completion and formal approval of the Quilombola Component Study (ECQ), an essential step in fulfilling the Free, Prior and Informed Consultation process, in accordance with ILO Convention 169 and Brazilian regulatory frameworks.**

Throughout 2024, MRN reaffirmed its adherence to international best practices by renewing its dual certification by the Aluminium Stewardship Initiative (ASI) — both in the Performance Standard and the Chain of Custody Standard. The company also made progress in aligning with key international performance standards, notably the Global Industry Standard on Tailings Management (GISTM), further reinforcing its governance and operational practices.

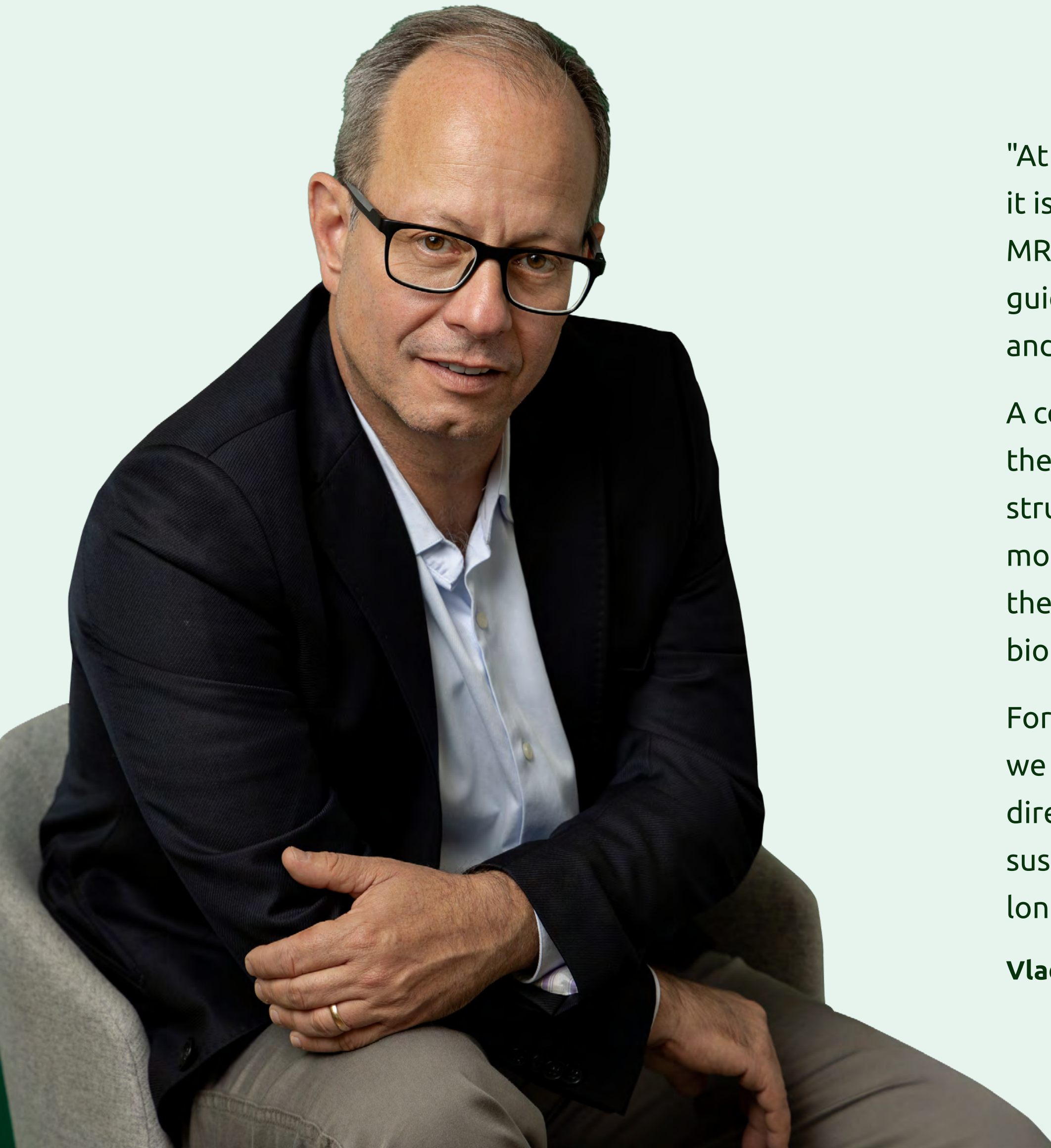
Our New Mines Project (PNM) represents a strategic cornerstone for MRN's long-term continuity. With the capacity to support annual production of 12.5 million tons of bauxite and sustain over 6,000 direct jobs, the project underpins economic stability in Western Pará and ensures steady tax contributions and socio-environmental investments over the next 15 years.

A key achievement in 2024 was the completion and formal approval of the Quilombola Component Study (ECQ). This was an essential step in fulfilling the process of Free, Prior and Informed Consultation, in accordance with ILO Convention 169 and Brazilian regulatory frameworks.

The company's Sustainability Committee continues to play a strategic role by driving stakeholder engagement and ensuring consistent, organization-wide implementation of environmental, social and governance (ESG) principles across all operations. This collaborative governance model remains a defining feature of MRN's Amazon operations.

Looking ahead, MRN remains committed to its mission of creating shared value, promoting inclusive development, and building a lasting legacy grounded in integrity, technical excellence and unwavering respect for people and the environment.

**Aaron Santos,**  
Chairman of MRN's Board of Directors



"At Mineração Rio do Norte, sustainability is not just a strategic pillar — it is a daily commitment embedded within every decision we make. MRN's senior management operates with a long-term vision, aligned with the guidelines set by the Board of Directors, which treats ESG (Environmental, Social, and Governance) issues as a top priority.

A concrete demonstration of this commitment was the creation, in 2018, of the Sustainability Department incorporated into the company's organizational structure. Its goal is to strategically integrate sustainability into our management model. Since then, we have supported policies, processes and practices that reflect the highest international standards in human rights, carbon emissions, water use, biodiversity and community relations.

For us, adopting ESG best practices is not an isolated goal; it is part of the culture we want to see reflected throughout the organization. "This clear and firm direction from the Board of Directors inspires and guides our employees to place sustainability at the core of decision-making—as an essential path to ensuring the long-term viability for our business and regional development where we operate."

**Vladimir Moreira**, Chief Sustainability Officer

## About the Report

This Mineração Rio do Norte S.A. (MRN) Sustainability Report offers a full overview of the company's operations and is aimed at all stakeholders. The report presents our main actions, strategies and performance indicators throughout 2024, covering the period from January 1 to December 31. When necessary, it is supplemented with additional contextual information about events that occurred before or after the reporting year. Published annually, the document reflects MRN's commitment to transparency in disclosing its ESG initiatives and responsible practices in bauxite mining. It also offers key operational and financial information that support clearer understanding of the company's context.

To enhance its reporting and align with international best practices, MRN has adopted the *Global Reporting Initiative* (GRI) guidelines and content in this report, structuring it per the most recent methodology standards. Following these principles, the report was developed with a focus on the company's material topics, highlighting how MRN manages its impacts. This report prioritizes the GRI content identified as material in the sector-specific standard "GRI 14: Mining Sector 2024." Although this new standard will only become mandatory for reports published after January 1, 2026, MRN proactively adopted it to prepare this report. It is important to note, however, that this report is not limited to the content classified as material. It also includes additional information on other topics that, while not identified as priorities, are still on

the company's broader agenda. The GRI contents are indicated throughout the report in their respective sections, as well as in the appendix, which provides additional information. In the **GRI Summary**, at the end of this report, all the contents are consolidated.

**The information presented here results from structured data collection and validation processes, conducted with the involvement of the company's main areas and confirmed by the Executive Board.** MRN reaffirms its commitment to continuous improvement in accountability and to adopting increasingly robust standards to ensure the integrity and reliability of the information disclosed, making the 2024 Sustainability Report a significant breakthrough in that journey.

### HOW TO NAVIGATE THIS REPORT



The presence of this symbol (arrow icon) or **underlined texts** is a pointer for navigability in this report.



If you have any questions or suggestions, please contact us at [comunicacao@mrn.com.br](mailto:comunicacao@mrn.com.br)





## POR DENTRO DA MRN

As a complement to the annual Sustainability Report, MRN launched the first edition of POR DENTRO DA MRN (INSIDE MRN) in 1H25. This new publication presents a consolidated overview of the company's key highlights from 2024. The publication will be released on a semiannual basis, sharing both progress and challenges in a spirit of transparency and collaboration. It serves as an accountability tool for MRN's economic, social and environmental performance, helping to build and strengthen trust-based relationships with its many stakeholders.

1st SEM | 2025

# POR DENTRO DA MRN

## INSIDE MRN

**Mining: Growth factor and diversification of the economy**

Sara Quaresma  
Community Relations Analyst at MRN

Learn more about our activities and how they contribute to the sustainable development of Western Pará

Income generation in balance with the environment

The future is in the West with the New Mines Project

Reforestation unites traditional knowledge and technology



# MRN Profile

## Business Model

MRN's uniqueness goes beyond extracting a strategic mineral. It is reflected in how the company's operations interact with and integrate into the surrounding territory and neighboring communities within its area of influence. In biodiversity-rich regions like the Amazon, mining activities must be balanced with preservation. Respect for both the environment and local communities is essential to ensuring that economic development moves forward in step with social and environmental responsibility. More than producing the raw material essential for aluminum, MRN's bauxite mining is driven by a purpose: to operate transparently and contribute to the sustainable development of the surrounding territory.

 [GRI 2-6]

**Bauxite, which is found underground and mined in open pit mines, is the starting point of the aluminum production chain, which is essential for modern life.**

Aluminum is a lightweight, tough, recyclable metal and widely used in industries such as transportation, construction, packaging, electronic devices and medical equipment. Its infinite recyclability makes aluminum one of the most sustainable materials in the world: more than 75% of the metal ever produced is still in use, contributing significantly to the circular economy.



*Bauxite drying process.*

Bauxite mining drives entire production chains and generates significant socio-economic impacts. The mining activity is responsible for the generation of thousands of direct and indirect jobs, promoting economic development in the regions where it is present. In addition, infrastructure built to enable operations – roads, energy, hospital infrastructure, local commerce – often benefits local communities as well.

In recent years, the industry has moved towards a more responsible mining model, incorporating practices that

minimize environmental impacts and enhance the benefits to society. Mining companies invest in innovative technologies to optimize water use, reduce waste, and restore mined areas, supporting biodiversity recovery and ecosystem conservation. Partnerships with universities and research centers have generated increasingly efficient solutions for rehabilitating environmentally exploited areas, ensuring that bauxite mining is aligned with global best practices. In this context, MRN remains attentive to ongoing developments and evolving trends in the sector.

**The mining activity is responsible for generating thousands of direct and indirect jobs, promoting economic development in the regions where it is present.**

## The virtuous cycle of aluminum

Check out the metal's infinitely recyclable cycle.



## Commitment to Sustainability within the Business Model

Since 2021, MRN has been certified in the *Performance Standard of the Aluminium Stewardship Initiative (ASI)*, the only voluntary global sustainability program for the aluminum value chain. It sets standards for the sector, promoting good environmental, social and governance practices. The initiative was established to ensure that the production, transformation, and commercialization of aluminum are carried out responsibly at every stage of the value chain.

To meet the ASI Performance Standard, an organization’s sustainability performance is assessed across a wide range of criteria, from corporate governance and business ethics to human rights, occupational safety and environmental protection. Its principles include a commitment to transparency, commercial integrity, reduction of carbon emissions, energy efficiency and responsible water and land use, as well as proper waste and tailings management. The ASI Performance Standard includes 11 principles:

1. Business Integrity

2. Policies and Management

3) Transparency

4. Materials management

5. Climate Change Management

Emissions, Effluents and Waste

7. Water Resources Management

8. Biodiversity and Ecosystem Services

9. Human Rights

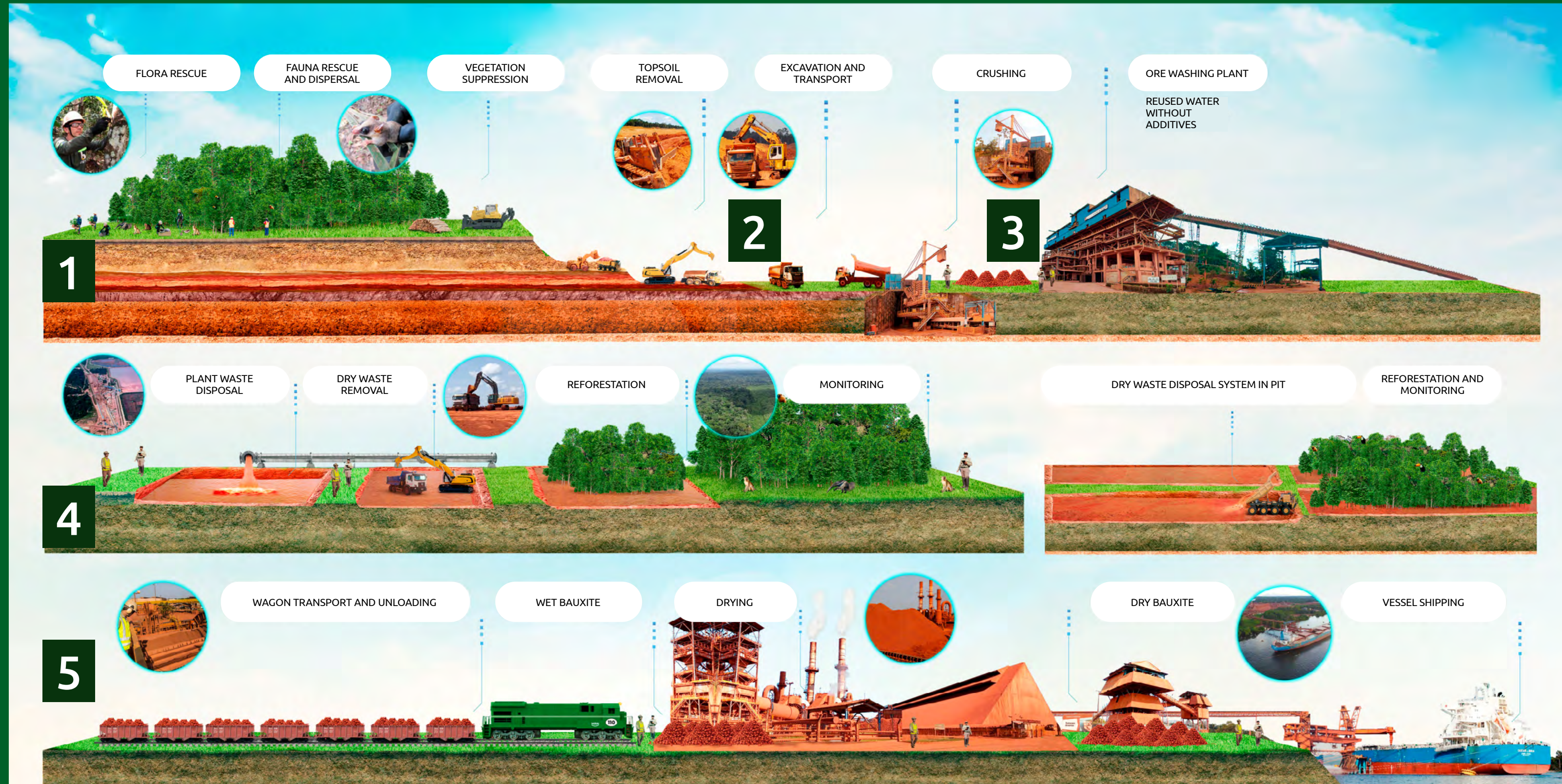
10. Labor Rights

11. Occupational Health and Safety

In addition, since 2022, MRN has held **ASI Chain of Custody (CoC) Standard certification, which ensures the traceability of responsibly produced aluminum throughout the entire value chain, from bauxite mining to the end product.** This certification ensures that the material is properly identified, segregated, and documented, allowing companies and consumers to trust the origin of the aluminum they use. To obtain this certification, MRN had to demonstrate the adoption of robust control and traceability practices within the value chain stages included in its business model. This ensures that the bauxite it produces and sells meets the environmental, social, and governance criteria established by ASI. This process yields an additional benefit: it strengthens the trust of customers, shareholders and other stakeholders by reinforcing the ethical and responsible conduct of MRN’s operations.



# How MRN extracts bauxite



In 2024

**zero** environmental accidents and incidents

**13.05 t** Mt shipped  
**258** loaded vessels

Vessels  
**68** foreign market vessels  
**190** domestic vessels

MRN's shiploader has the production capacity of **7 thousand tons/h**

**1**  
**Forest inventory**  
The first step is taking a forest inventory, followed by the rescue of flora and fauna and wildlife dispersal.

**2**  
**Bauxite mining**  
Subsequently, vegetation and topsoil are removed. This soil is reserved for future rehabilitation of the area. The bauxite excavated in the mine is transported by trucks to the crushing plant.

**3**  
**Beneficiation**  
In crushing, the bauxite is crushed and washed to separate it from the clay (a process called beneficiation). Then the ore is stored in piles. It is important to note that no chemicals are used in this process.

**4**  
**Tailings and Reforestation**  
Tailings are the materials separated from the bauxite during the beneficiation process. They are basically composed of water, sand and earth. Tailings are deposited in reservoirs that are reused and, when they reach the limit of their useful life, are reforested with native plants. Mine areas also undergo forest restoration.

**5**  
**Transport and Storage**  
The beneficiated bauxite is carried on conveyor belts to the railroad loading yard, with trains taking the ore to the port. There the bauxite, still wet, is stockpiled, while the portion to be sent abroad undergoes a drying process. After loaded on the vessels, bauxite goes to refiners, in Brazil or abroad.

## MRN

The company's 45-year history reflects the development of a strong culture, one guided by core principles that shape MRN's operations and underpin its relationships with a broad stakeholder range. Its vision, mission, purpose and values serve as foundational pillars of the company's strategic roadmap. They reinforce MRN's ongoing journey by fostering alignment, engagement, and a clear understanding about where the company is headed. In the dynamic and challenging mining environment, having deeply rooted values enables the company to make decisions that align with its identity and strengthen its reputation within the industry.

Safety is at the core of the organizational culture, guiding every activity with a genuine concern for people. Respect, reflected in the appreciation of diversity

and inclusion, strengthens the workplace environment and amplifies the company's positive impact on the communities where it operates. Integrity, in turn, ensures transparency, fairness and good corporate governance practices, sustaining trustworthy relationships with communities, suppliers, customers and shareholders. **Sustainability is a non-negotiable commitment for MRN, as we believe economic development must go hand in hand with social and environmental preservation.** Finally, the constant search for continuous improvement, coupled with austerity and discipline, drives the company to build innovative and efficient solutions to the challenges of the minerals sector.

These values support MRN's vision to be a company of excellence, one that is



*Sara Quaresma, Community Relations analyst.*

sustainable and a reference in the mineral sector throughout the organization's' life cycle. Its mission to produce bauxite meeting customer needs, generating returns for investors and respecting people and the environment, reflects the balance between

growth and responsibility. Above all, its purpose is grounded in the conviction that bauxite production must contribute to a sustainable world, ensuring that mining plays an essential role in building a more prosperous and balanced future.



Shiploader in the port operations area.

**Amounts:**



**SAFETY**  
During work,  
genuinely caring.



**RESPEITO**  
With diversity, inclusion  
and recognition.



**INTEGRITY**  
Transparency, ethics, fairness  
and good corporate  
governance practices.



**SUSTAINABILITY**  
Economic development with  
socio-environmental commitment.



**CONTINUOUS IMPROVEMENT**  
With austerity and discipline.

**Vision:**

To be a company of  
excellence,  
a sustainable reference  
in the minerals sector  
throughout  
the business life cycle.

**Mission:**

To produce bauxite  
meeting the needs of  
customers, generating  
returns to investors  
and respecting people  
and the environment.

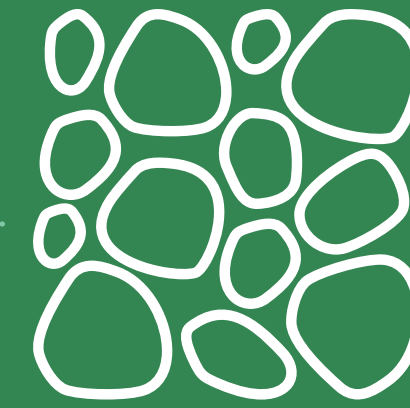
**Purpose:**

To produce bauxite  
that contributes to a  
sustainable world.

These years of history can also be summed up in numbers that highlight the magnitude of what has been, and continues to be, built:



+ than  
**6.7 thousand**  
professionals



+ than  
**12 million**  
tons of bauxite produced/year



**60%**  
of bauxite production is destined for the Brazilian market

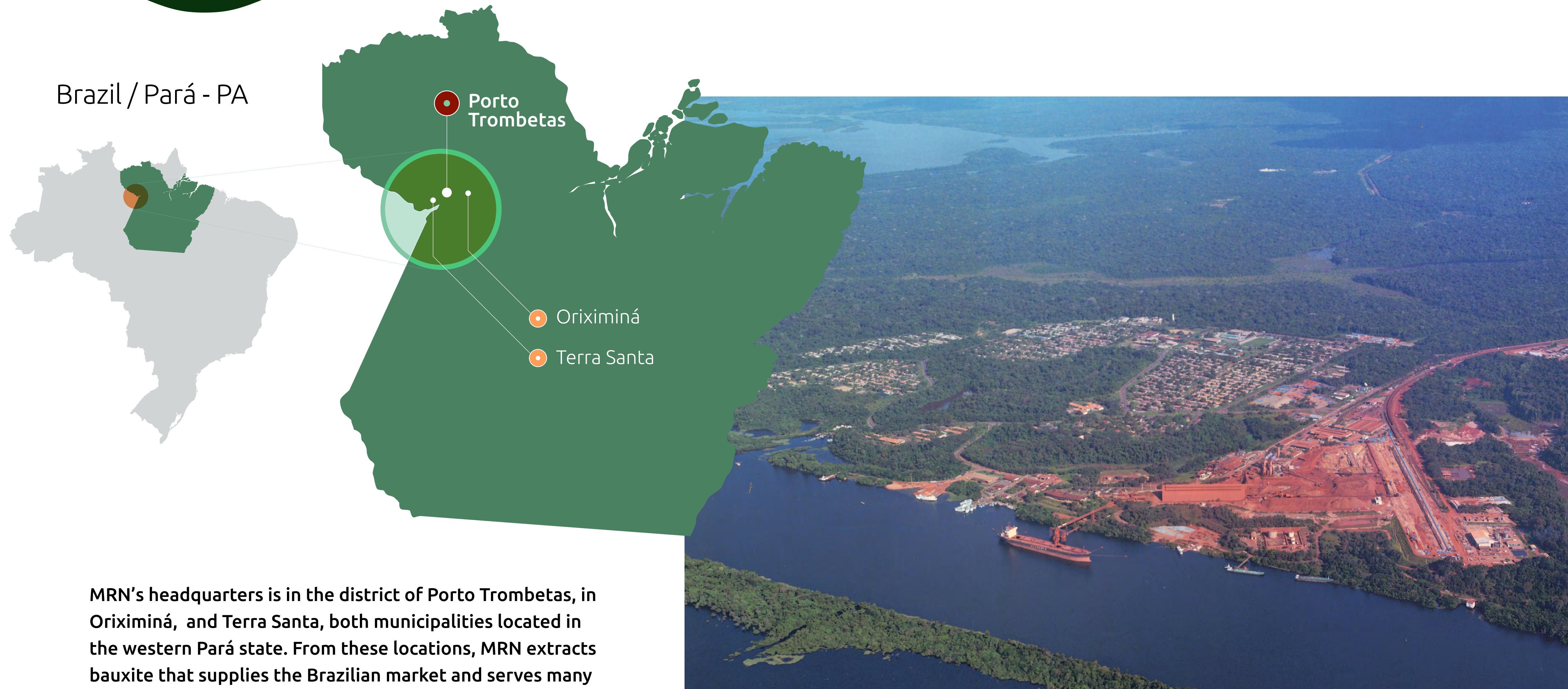


**3 continents**  
supplied:  
America,  
Europe and  
Asia



+ than  
**60**  
socio-environmental initiatives





Brazil / Pará - PA

Porto Trombetas

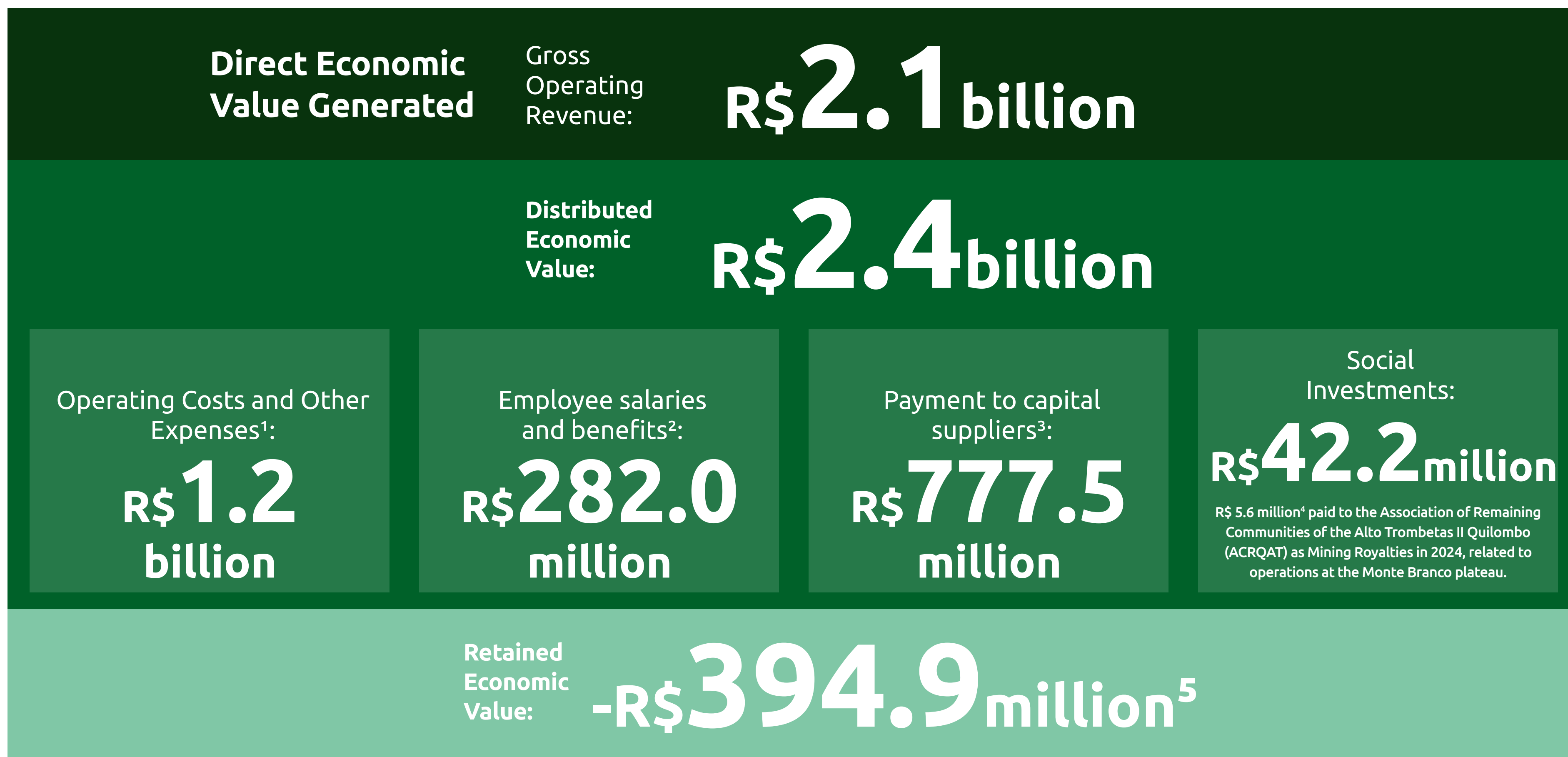
Oriximiná

Terra Santa

MRN's headquarters is in the district of Porto Trombetas, in Oriximiná, and Terra Santa, both municipalities located in the western Pará state. From these locations, MRN extracts bauxite that supplies the Brazilian market and serves many other countries distributed on 3 continents.

*Aerial image of Porto Trombetas, focusing on the port operations.*

## Economic Impact



<sup>1</sup>Composition: The "Operating Costs and Other Expenses" line item, as disclosed in the 2024 Statement of Value Added (SVA), includes Materials, Services, Depreciation, Amortization and Depletion. It does not include Personnel Compensation or Social Investment.

<sup>2</sup>Composition: Salaries and Employee Benefits extracted from the SVA.

<sup>3</sup>Composition: Capital providers' compensation includes Interest and Monetary Variation liabilities minus assets.

<sup>4</sup>Participation in the Result of Mining Royalties paid, in 2024, referring to the legalization of a quilombola territory by the Brazilian government.

<sup>5</sup>Composition: "direct economic value generated" minus "distributed economic value"

## MRN Operation

### Excellence and innovation for high performance in the production chain.

The pursuit of operational excellence is one of the fundamental pillars of modern mining, especially in large-scale operations such as MRN's. More than just meeting production targets, operational excellence means ensuring safety, efficiency, sustainability and resilience across every stage of the bauxite value chain. **By embracing innovative technologies, driving continuous improvement, and applying integrated**

**management practices, MRN has consistently optimized resources, boosted productivity and delivered high-quality performance to meet customer demands.** This commitment is evidenced by initiatives such as the creation of an Integrated Operations Center (IOC), the implementation of advanced monitoring systems and the constant investment in training and performance management.

In 2024, MRN recorded an effective operational shipping rate of

# 4,368t/h

This rate represents the total volume shipped divided by the effective loading time



Integrated Operations Center (IOC).

## Integrated Operations Center

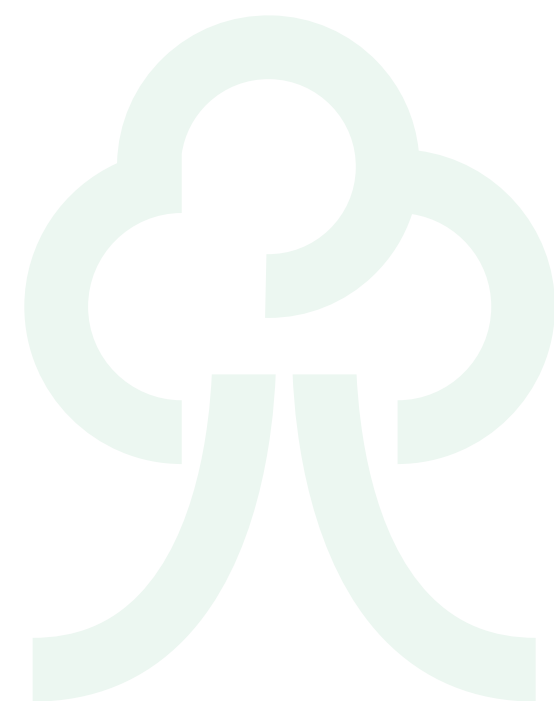
A decisive step in advancing MRN's operational excellence was the creation of the Integrated Operations Center (IOC), designed as a strategic solution to centrally manage the complexity of mine, plant, railroad and port activities. Before its implementation, operations were distributed across seven geographically dispersed control rooms, each functioning in isolation. This fragmented setup made coordination and process standardization difficult. With the IOC, all operational areas began to be monitored and managed in real time from a single location, bringing together technologies, data and specialized professionals.

**MRN's IOC centralizes strategic decisions and delivers greater efficiencies and safety.**

**Such centralization led to significant gains in safety, efficiency and productivity, while also enhancing operational competitiveness amid growing challenges across the production chain.** The project was led by the General Technical Services Department, with active participation from the Mining Operations, Industrial, Maintenance, and Information Technology teams — adopting a multidisciplinary approach throughout its development. One key conquest in the COI's first phase was the launch of the Geotechnical Monitoring Center. It now oversees the safety of tailings and water reservoirs, reinforcing operational safety integrated management.



*Technicians monitoring port and mine operations at the COI.*



Equipped with modern infrastructure and high-performance computing resources, the IOC has become a strategic pillar for MRN's operations.

Among the main operational gains observed, the following stand out:

- Daily breakdown of mining production by area;

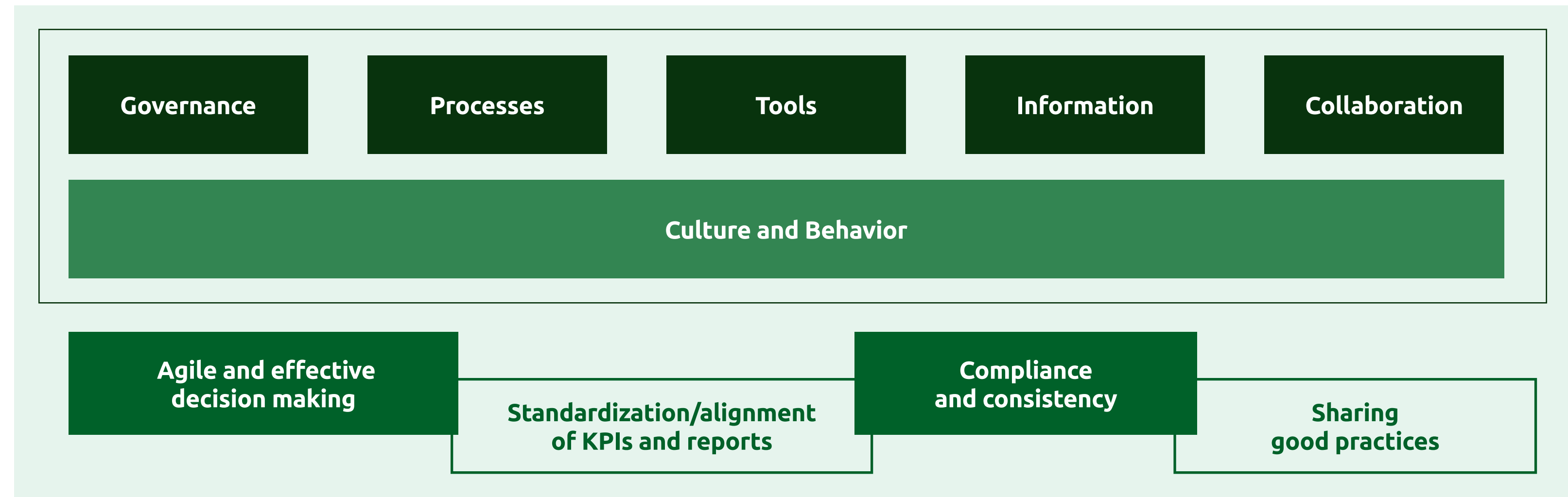
- Greater precision in the sequencing the mining phases (stripping, scarification and loading);
- Operationalization of monthly mining geometries;
- Improvement in the sizing of the crawler tractor fleet (de-escalation and scarification);

- Identifying fleet optimization opportunities;
- Greater adherence to monthly mining plans.

Other relevant advances involve improving the response time to solve problems that impact the entire production chain, from mining to bauxite shipment.

Concentrating planning and operation teams in the same physical environment favors synchronization of activities and faithfulness to plans, especially short-term ones. Implementing new production and planning reports, now standardized, hierarchical and interdependent, thus improving information management and corporate knowledge.

**The IOC makes it possible to synchronize operations and meet production plans.**



## Use of Orchestra software for production optimization

Building on the progress made with the creation of the IOC, MRN implemented the Orchestra Project, named after the software itself, between May and August 2024. The initiative aims to identify bauxite mine operational bottlenecks and propose solutions through data analyses and future scenario simulations. The system also allows us to evaluate available asset best-use, especially mobile mining and transportation equipment.

The tool was implemented by a multidisciplinary team involving professionals from the Planning, Production Planning and Control, Mine Operation and Information Technology areas. The main objective was to make operational analysis a more powerful tool, using the fleet management system database. This data is segmented by parameters such as section, operator,

equipment model, shift and time interval, providing a deeper analytical view of operational performance.

The project's current phase involves developing proposals to optimize fleet performance and eliminate bottlenecks identified in the simulations. Planned

measures under evaluation include widening access routes and relocating the central berm, replacing it with metal guardrails and adjustments in the crushing system, such as changes in the equipment cycle and more efficient inventory use. The team's expectations involve not only gains in productivity

but also reducing running costs and preparing mining and production plans that are more in line with operational realities.

To ensure effective use, targeted training sessions were held with both teams assigned to operate the new software.



*Port Operations Center.*

## Efficiency with Safety

In its mining and bauxite transportation operations, MRN has implemented continuous improvements focused on operational safety, productivity and efficient resource use. Between 2023 and 2024, the company achieved a significant increase in production without expanding its equipment fleet, thanks to improvements in key performance indicators—such as physical availability, utilization and productivity—of its mining assets. This allowed significant reductions in large equipment: the number of excavators was adjusted from seven to six units; crawler tractors, which represent the highest cost in the fleet, went from 18 to 15 units in operation; and there was also a decrease in trucks on the mining fronts. These reductions represented significant gains in terms of operating costs, productivity and atmospheric emissions.

**In 2024, MRN reached a landmark in operational safety within its mining and tailings operations, recording zero reportable accidents over more than 2.6 million man-hours worked.**

The strength of the safety system also relies on technologies implemented in the Integrated Operations Center (IOC), such as the Atento system. This innovative solution conducts attention tests with operators at the beginning of shifts and after meals, assessing their fitness through personalized interactive games. In cases of disability, the professional is directed to a stimulation program before resuming activities, reinforcing the prevention and care culture. In addition, MRN has implemented fatigue detection systems for equipment operators in the infrastructure and tailings areas.

**Adopting more refined control over operational variables also led to a reduction in the variability in the levels of alumina, reactive silica and iron in shipments, ensuring quality product deliveries in line with the projected budget.**

A central element for this transformation was systematizing telemetry technologies, using both the Scania Fleet system and internal solutions linked to the IOC. With these tools, it is possible to monitor variables such as speed, rotation, fuel consumption and operator behavior in real time. Continuous analysis of these data allowed targeted interventions to correct inefficient driving practices, reducing specific diesel consumption and, consequently, CO<sub>2</sub> emissions per ton transported.

In partnership with Komatsu, MRN also tested large crawler tractors (850HP), seeking higher performance alternatives with lower operating costs. The adoption of more refined control over operational variables also reduced variability in alumina, reactive silica, and iron content in shipments, ensuring product quality in line with the projected budget. These initiatives reflect MRN's commitment to technological innovation as a pillar to strengthen the reliability, efficiency and safety of its operations.

## Continuous Improvement

Based on recognized methodologies such as PDCA, Lean and Six Sigma, MRN invests in structured programs that strengthens a culture featuring planning, discipline, austerity and protagonism for teams at all company levels. Among the highlights of MRN's continuous improvement efforts in 2024 was the bolstering of the Results Management team, which is responsible for supporting operational areas in identifying and implementing opportunities for operational and financial gains. This front is integrated with the Competitiveness Program, essential to boost MRN's financial results. Through operational cost management restructuring and the implementation of both structural and targeted initiatives, the program directly contributes to increased cash generation

for the company. These methodologies involve a careful analysis regarding opportunities identified, the development of strategic initiatives, executing effective action plans and measuring gains obtained from the improvements implemented.

MRN applies the Quality Control Circle (QCC) program as a continuous improvement tool, bringing together volunteer multidisciplinary teams made up of employees and contractors. These groups meet regularly to propose solutions to real problems in work processes and the operational environment. The initiative stimulates innovation, teamwork, reduction of waste, costs and failures, as well as higher productivity. The groups follow a structured four-step plan — Analysis, Validation, Implementation, and

Control — and apply methodologies such as Kaizen and PDCA, which are widely adopted across MRN's operations.

**In 2024, the program engaged around 500 employees, organized into 77 groups, who developed 99 projects — 75 using the Kaizen methodology and 24 based on PDCA.** The main improvements achieved involved gains in safety, productivity, social impacts and cost reductions. All QCC projects are presented at internal seminars and evaluated by a technical committee. The standout initiatives are recognized during MRN's Excellence Week, with awards granted for both methodologies, as well as special prizes for Health and Safety, Social Project, and Best Presentation.

One highlight among the projects implemented was the QCC Group of the Dams Section – Tailings Operations, which brought significant gains by optimizing the fuel supply process for dredges in the tailings lakes. Previously, this supply was handled by transporting drums in small vessels (rabetas) to the operational starting location. With the project, a supply system was developed outside the lake through a structure composed of a tank, pump and hoses for direct supply to the dredges. With this solution developed by the group, the activity time was reduced from one hour to only six minutes, also eliminating the environmental risks associated with the transport and fuel handling.

## Excellence Week

In 2024, MRN held another Excellence Week—a dedicated event to share best practices, promote integration among different areas within the company and its suppliers, recognize standout initiatives, and strengthen its continuous improvement culture. The event featured workplace safety and environmental awareness talks,

educational activities, product and service exhibitions, theatrical performances, and interactive spaces at the Excellence Fair. Employees and local community members actively participated throughout the week. Merged with the event, the Internal Week for the Prevention of Occupational Accidents in Mining (SIPATMIN) also was held.



*Excellence Week, at the Cineteatro de Porto Trombetas, 2024.*



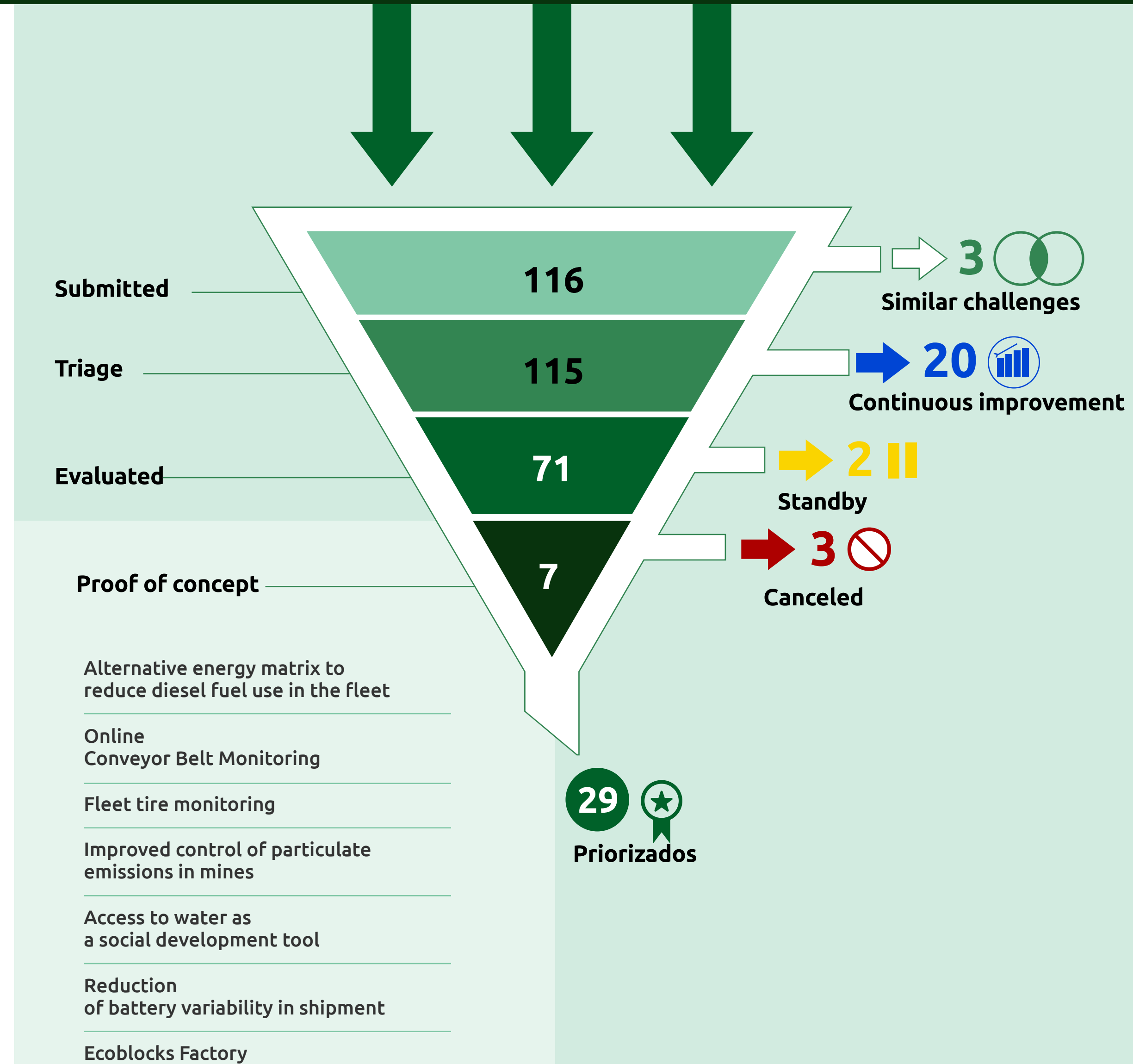
According to Wvagno Ferreira, MRN's General Manager for Performance Management, Risk, and Internal Controls, the Excellence Week celebrates employee talent while strengthening community ties and fostering a collective process favoring innovation and regional development. "Excellence Week offers participants an opportunity for professional growth, and the recognition fosters greater engagement, strengthening the company, safety in its activities, and the environment in which we operate."

## Innovation

The year 2024 represented a milestone for MRN in strengthening its Innovation agenda. Although the topic was already included in the company’s routine, MRN formally established a dedicated Innovation department, with its own team and clearly defined responsibilities. As a complementary initiative, an “Innovation Facilitators” group was created to help embed an innovation culture across all departments. Comprised of employees who volunteered and were gradually trained, the group works to promote innovative thinking and practices throughout the company. Throughout the year, five meetings were held with the group, aimed at fostering engagement and knowledge-sharing around innovation.

These sessions also encouraged critical and creative thinking on the strategic and operational challenges faced by MRN.

One of the first initiatives for the new area was “Challenge Mapping,” a collaborative active listening process with all company areas to identify opportunities for innovation. **The action resulted in the identification of 116 challenges in 17 different areas. Some 29 were prioritized based on strategic criteria for the business.** Of these, seven evolved into the Proof of Concept (PoC) structuring phase, representing the bottom of the prioritization funnel for a structured *pipeline* for innovative solutions with potential for practical application in MRN's operations.



**Among the seven PoCs, it is worth mentioning:**

<p><b>Access to Water as a Social Development Tool</b></p>	<p>This project is an example of social innovation applied on a small scale that generates germane benefits. In partnership with the Água Camelo start-up and through the M-Impact <i>program</i> (Cycle 2) of the <i>Mining Hub</i>, MRN implemented a water supply and treatment system in the Boa Esperança Community, in Oriximiná. The solution uses photovoltaic solar energy, water tanks and a filtration system to provide quality water, directly benefiting seven residents. The project eliminated the need for manual water intake, reduced daily physical effort, and contributed to improvements in community health and well-being. The entire implementation process was carried out collaboratively, with the active involvement of local residents. After one month in operation, the system demonstrated high effectiveness. Moreover, its maintenance is the responsibility of the community itself, ensuring sustainability.</p>
<p><b>Online Conveyor Belt Monitoring</b></p>	<p>Developed in partnership with LLK, this project aims to implement an online monitoring system for Long-Distance Conveyor Belts (LDCBs) and other Class A conveyors, using artificial vision technologies and vibration analysis. The RADEC® Vision and Vibrational systems can identify, in real time, failures such as tears, misalignments and wear, allowing corrective actions before they become critical. The initiative aims to reduce damage to equipment, avoid unscheduled shutdowns, increase materials transportation reliability and contribute to safety and operational efficiency.</p>
<p><b>Reduction of Stack Variability in Shipments</b></p>	<p>This project seeks to validate a solution to reduce the variability in the composition of ore piles during the shipping process. The technology under test uses the <i>Hammer Head Laser</i> system for real-time volumetric measurement of bauxite stacks. Installed in a recovery cabin, the equipment allows accurate monitoring regarding the volume and distribution of the material, offering more consistent data for quality control and logistics. The expectation is that the solution will contribute to the standardization of shipments and a more efficient shipping process.</p>

The Innovation area also began identifying market-based development opportunities while positioning MRN within Brazil’s broader innovation landscape. This movement has been consolidated through active participation in the ecosystem. It includes presence in events, hubs and collaborative networks, such as the *Mining Hub*, created by the Brazilian Mining Institute (IBRAM).

In 2024, the company made significant progress in expanding its innovation ecosystem, establishing strategic partnerships with various other institutions. These connections have been fundamental in enabling the development of technological solutions aligned with MRN's commitments to innovation, sustainability and value creation. Many initiatives currently being implemented at the company originated from these interactions, especially with startups and collaborative environments.

## Mining Hub

The Mining Hub is the first open innovation platform in the mineral sector in the world, designed for connecting mining companies, startups, researchers and investors to develop innovative solutions that meet the mining industry's challenges. The *hub* promotes programs such as *M-Start*, *M-Impact*, *M-Science* and *M-Scale*, which have already resulted in more than 140 proofs of concept executed, involving more than 1,700 registered *startups* and more than 1,100 mapped challenges.

In 2024, reinforcing its commitment to innovation and sustainability, MRN assumed the chairmanship of the Mining Hub's Board of Directors, represented by Gustavo Lage, leading strategic initiatives aimed at transforming the mineral sector. During this period, the company actively participated in events such as Speed Datings 1 and 3, in addition to registering a challenge in *M-Start Cycle 11*. He was also present at the North Hackathon edition and, as chairman of the Board, strengthened MRN's collaborative role in the innovation ecosystem.



*Gustavo Lage, manager Project Office manager.*

Also noteworthy is MRN's participation in the Mineral Sector Decarbonization Project, a joint initiative between IBRAM, the Mining Hub and the British government. As a signatory company, MRN actively contributed to the project's design and development, which aims to identify opportunities to reduce greenhouse gas (GHG) emissions in mining and establish collaborative technological routes towards a low-carbon economy. Among the actions carried out, we highlight emissions mapping to understand the environmental impact of the sector and participation in the construction of a roadmap with a focus on defining sectoral decarbonization goals.

Evolving toward 2025, the Innovation area will begin to systematically monitor performance indicators (KPIs) defined in the previous year, focusing on five strategic areas: Culture, Open Innovation, Governance, Authority, and Research, Development & Innovation (RD&I). Each indicator is tied to specific targets. These include strengthening MRN's image as an innovative company in organizational climate surveys, increasing innovation-related content on the intranet, delivering training to senior leadership, executing the challenges prioritized for 2024, and participating in events and benchmarking initiatives. Also, prospective partnerships with other companies in the sector for joint project development is included in the coming years.



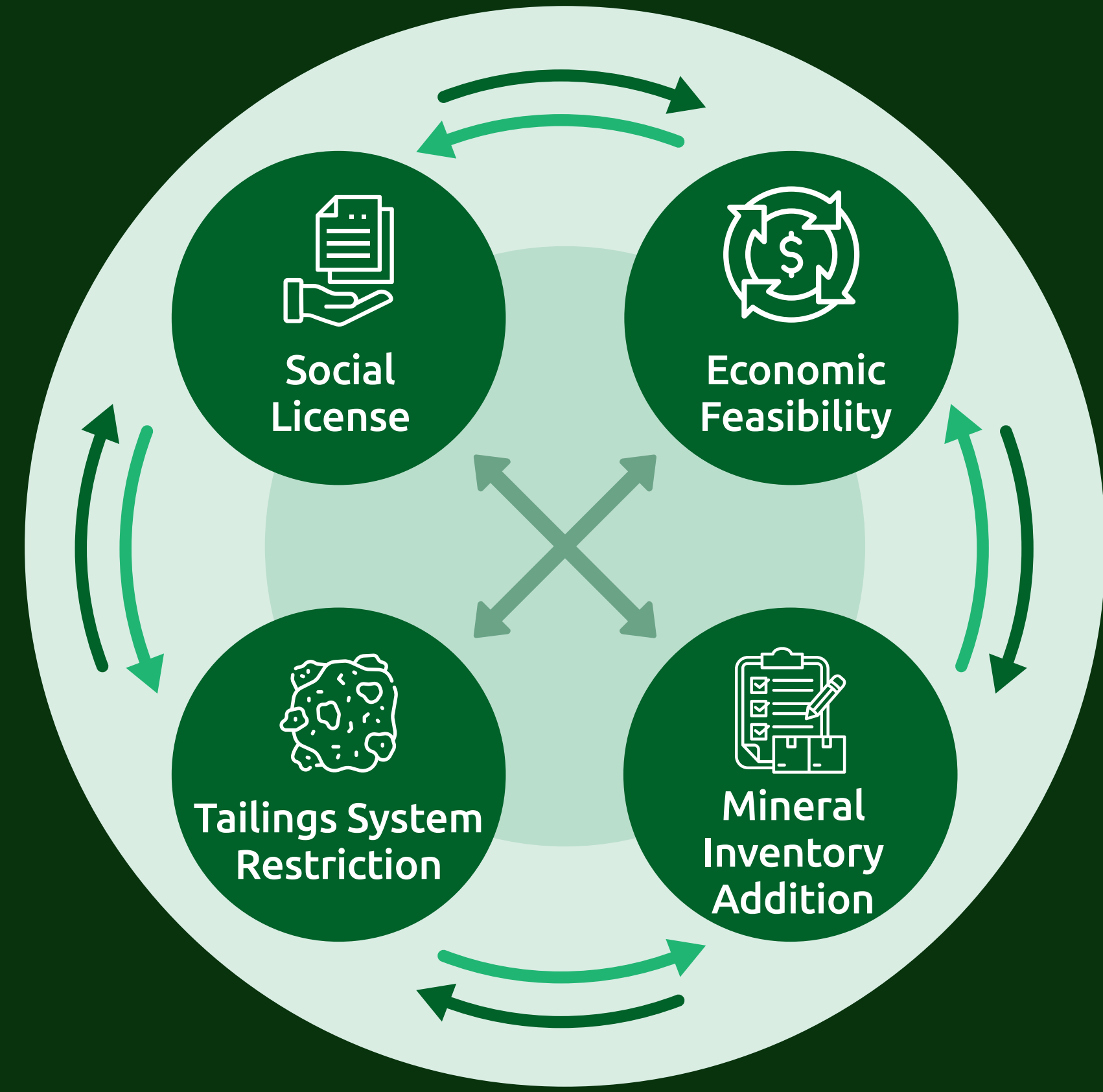
Annual meeting with MRN suppliers.





## Strategic Direction

MRN systematically reviews its strategic planning to reassess its strategic map — which includes its values, mission, vision, and purpose — alongside its corporate priorities. This process ensures business continuity and drives operational efficiency gains. This process involves key areas that, based on the company's context, its main challenges, and market vision, break down planning into objectives and initiatives throughout its time horizon. During 2024, MRN kept its strategic map updated for a five-year time horizon, enabling better planning and management capabilities and providing visibility for short-, medium- and long-term actions.

MRN defined four major challenges: Social License, Tailings System Restriction, Economic Viability and Mineral Inventory Addition.

## MRN'S 4 CHALLENGES

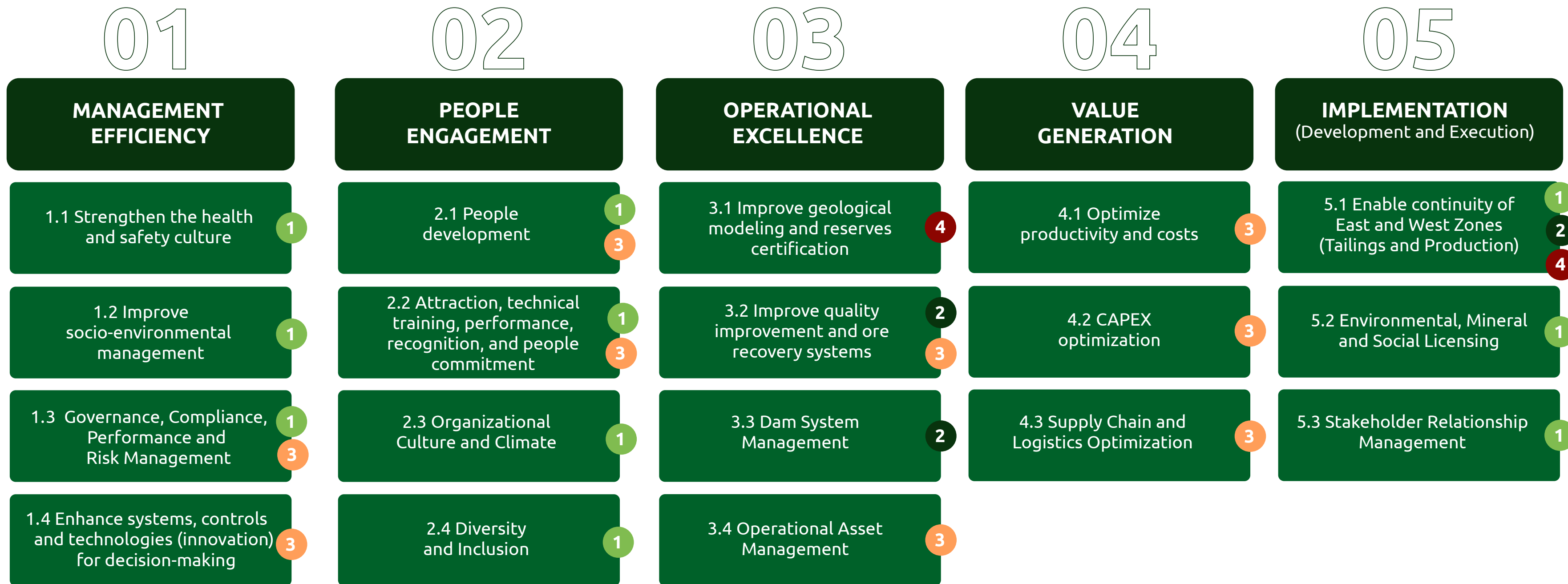


 <p><b>Social License</b></p>	<p>The Social License or Social License to Operate (SLO) concept refers to the continuous acceptance and approval of a company or project by society, especially by the communities impacted by its activities. Unlike legal and regulatory licenses, SLO is based on stakeholder perception and trust. In this context, MRN sees one key challenge as building a broad agreement with the civil society where it operates. To this end, the company actively promotes awareness about the socio-economic importance of mining activities. The challenge in the relationship with stakeholders is mainly correlated to the acceptance of the following initiatives:</p>	<ul style="list-style-type: none"> <li>• West Zone Program (PZO), with emphasis on the New Mines Project (PNM), the Transmission Line Project (PLT) and the Tailing System Project (PSR);</li> <li>• Addition of mineral inventory (plateau edges).</li> <li>• Enabling spaces for tailings accommodation;</li> <li>• Expanding the Saracá Oeste road to Monte Branco, 7.8 km long for transporting dry tailings.</li> </ul>
 <p><b>Tailings System Restriction</b></p>	<p>Proper tailings management is a main challenge for the mining industry, requiring innovative engineering solutions to ensure operational continuity and minimize environmental impacts. The availability of suitable space and capacity for tailings disposal must be strategically planned, with careful consideration for structural safety and long-term operational needs and compliance with environmental and regulatory standards. In this context, the company seeks alternatives to optimize its waste disposal and similar processes, adopting technologies that increase operational efficiency and reduce the need for new areas for waste accommodation. This challenge is mainly correlated to:</p>	<ul style="list-style-type: none"> <li>• Implementation of the requirements required for GISTM certification - Global Industry Standard for Tailings Management;</li> <li>• Preparation of studies to define tailings disposal sites;</li> <li>• Preparation of a Tailings Disposal Plan;</li> </ul>
 <p><b>Economic Feasibility</b></p>	<p>Maintaining competitiveness and ensuring the financial sustainability for a mineral project requires a balance between cost control, strategic investments, new commercial contracts and adequate financial structuring. The mining operation's economic viability is directly linked to its ability to reduce operating costs, optimize CapEx and establish advantageous commercial contracts. In addition, treasury strategies, such as debt restructuring and project financing, such as the West Zone Program (PZO), are fundamental to ensure the company's liquidity and its ability to invest in the future. This challenge is mainly correlated to:</p>	<ul style="list-style-type: none"> <li>• Ensuring adequate credit limits to finance operations in the short-term;</li> <li>• Closer relations with financial institutions;</li> <li>• Development of a PZO financing strategy;</li> <li>• Investments in innovation and</li> <li>• Competitiveness Program.</li> </ul>
 <p><b>Mineral Inventory Addition</b></p>	<p>The continuity and longevity of mineral operations depends directly on the company's ability to add new reserves to its mineral inventory. Geological investigations are key to improving knowledge about existing deposits, enabling more accurate and efficient mine planning. In MRN's current context, it is essential to understand the real useful life of the East Zone plateaus and potential ore additions, aiming at a smoother transition to the West Zone, with fewer impacts on operating cash flow due to production gaps.</p>	

These challenges form the foundation for MRN's strategic planning, guiding the definition regarding corporate goals and the initiatives needed to achieve them.

MRN's strategic plan has five targets, which we call global goals. They are: Management Efficiency, People Engagement, Operational Excellence, Value Generation and Implementation (Development and Execution). Each goal is associated with one or more challenges and has outlined initiatives that support planning. The initiatives were defined with a focus on actions with greater impact on the goals, optimizing the resources necessary for implementation.

## MRN Strategic Plan 2022-2027



### CHALLENGES

- 1 Social License
- 2 Tailings System Restriction
- 3 Economic Feasibility
- 4 Mineral Inventory Addition

In order to achieve any goal, it is essential to have a plan linked to an implementation schedule. Thus, MRN deployed these goals, distributing projects and strategic initiatives. This entire process is based on robust governance, which includes distributing roles and responsibilities, as well as the defining control indicators and milestones for monitoring, evaluating and reviewing the progress of strategic goals and projects. In addition, it is understood that the goals will only be met if the entire company is engaged. Therefore, when strategic planning process began to be implemented, MRN ensured the engagement of its teams through workshops involving leaders and other employees to communicate the various elements and receive the necessary contributions from all present.

## West Zone Program

MRN's 45-year history, completed in 2024, continues to be built with the West Zone Program (PZO), which represents the continuity of MRN's operations in Western Pará, ensuring the company's presence for at least another 15 years with five new plateaus to be opened. The structuring initiatives will ensure average annual production reaches 12.5 million tons of bauxite and sustains around 6,000 direct and indirect jobs in the region.

**The West Zone Program will ensure the continuity of MRN's operations for at least another 15 years.**

They also help reduce emissions tied to the company's energy use. Therefore, in addition to ensuring continuity of the operation's economic viability, MRN maintains its commitment to the sustainability and the region's socio-economic development, with its direct contributions and endurance through tax collections by government institutions - essential for local public policies.

Consisting of three major projects – **the New Mines Project (PNM), the Transmission Line Project (PLT) and the Tailing System Project (PSR)** – the PZO enables the company's operational continuity as it approaches the depletion of mining resources currently in operation in the East Zone. The project adopts innovative solutions that combine efficiency and productivity gains with sustainable practices, such as reusing

mined areas for tailings handling and consolidating more sustainable energy alternatives.

The PZO implementation also marked a new cycle for investments and possibilities for technological advances for the company's future operations. This ranged from using larger trucks and equipment with lower energy consumption to the possibility of fleet electrification. The project paved the way for the future of MRN's activities with a focus on greater competitiveness and reduced emissions. In 2024, two important developments took place: the issuance of the Preliminary License (PL) for the PNM, confirming its socio-environmental viability; and the start of PLT implementation to connect MRN to the National Interconnected System (SIN), following the Installation License (IL) grant.



*Anderson Melo Pereira (Shift Operation Technician) in the Generation Plant Operation Section.*

## Transmission Line Project (PLT)

With the connection of MRN to the National Interconnected System (SIN), the company will be able to replace the internal power generation that supplies the operation and the Vila de Porto Trombetas, currently made by fuel oil thermoelectric plants, with clean sources that make up most of the Brazilian energy matrix. The new 230kV transmission line will be 98 km long. It will connect the operation to the SIN, starting from the substation in Oriximiná to the future Saracá substation, within the MRN site in the Porto Trombetas district. Expected to be completed in early 2027, the project advances a profound transformation in the way the company consumes energy.

The Transmission Line Project (PLT) implementation is expected to reduce MRN's CO<sub>2</sub> emissions from electricity generation by up to 90%. These emissions are currently

classified under Scope 1. Based on the company's annual historical average over the past five years, this would represent a reduction by approximately 25% in total emissions. Over the 15 years of PNM operations, the emission reduction could reach about 2.1 million CO<sub>2</sub> tons. This impact positions the PLT as MRN's main initiative for decarbonization and energy transition.

PLT viability was fundamental to ensure the technical, environmental and economic sustainability of the PNM. This is because the growing distance between the new plateaus and the current infrastructure requires greater operational effort. The investment was approved by shareholders in 2024, after more than a decade under development and articulation with various stakeholders, due to the project's complexity. The interconnection with the SIN will also deliver additional gains in reliability and energy flexibility for MRN.



*Meeting in the Ascensão community (Oriximiná/PA) to detail information about the Transmission Line Project – PLT.*

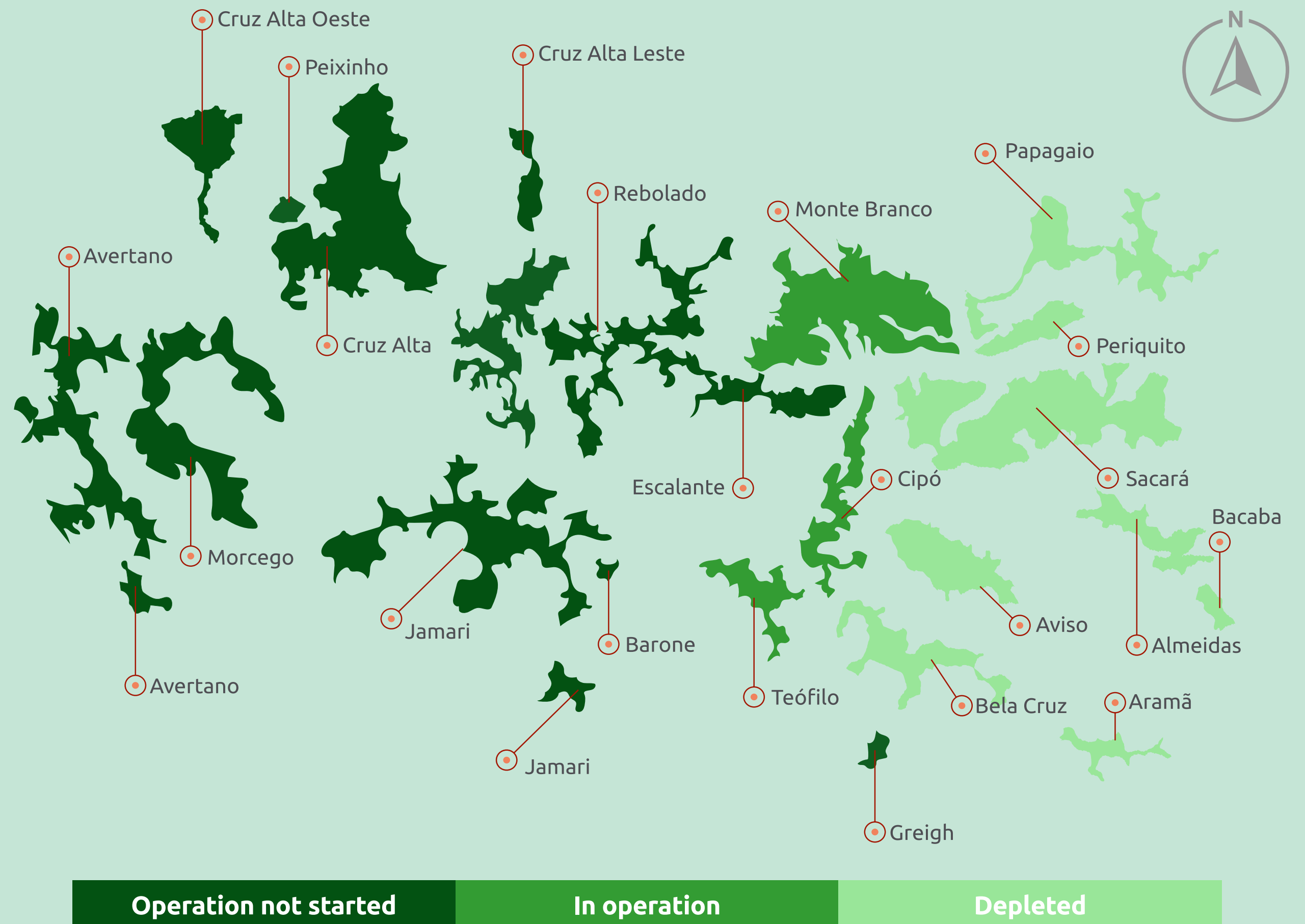
**The PLT will avoid the emission of up to 2.1 million tons of CO<sub>2</sub> in 15 years.**

## New Mines Project (PNM)

The New Mines Project (PNM) is the main continuity vector for MRN's operations. Unlike an expansion, the PNM represents the maintenance of the company's current productive capacity by mining new mineral plateaus — Rebolado, Escalante, Jamari, Barone and Cruz Alta Leste — located in Oriximiná, Terra Santa and Faro, within the limits of the Saracá-Taquera National Forest. These plateaus will gradually replace the exhausted deposits of the so-called East Zone, which has been mined since MRN's startup, and whose operation will end in the coming years.

With the Preliminary License (PL) granted in 2024, the PNM's socio-environmental viability was recognized by the Brazilian Institute of Environment and Renewable Natural Resources (Ibama). The licensing process included environmental and social studies and the quilombola community component. The company's existing infrastructure will continue to be used, with occasional adjustments: new access roads to the plateaus and operational and administrative infrastructure, necessary to maintain MRN's operating conditions.

## MAP OF THE MINES



## Tailings System Project (PSR)

In 2024, MRN kicked off a significant transformation in its tailings management approach, directly related to the progress of the New Mines Project (PNM) and the West Zone Program (PZO) implementation. This new phase marked the consolidation of technologies that prioritize dry tailings disposal in already-mined pits, a solution that drastically reduces the need to build new reservoirs and suppress native vegetation.

Previously, the traditional model required the periodic construction of tailings reservoirs due to mud accumulation comprising only water and clay. This process, in addition to burdening the operation, would require fresh areas for the construction of new reservoirs. As the PZO advanced, MRN deployed tailings

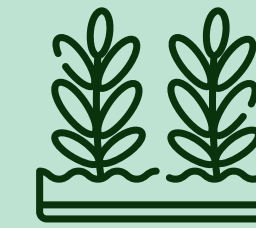
disposal technology in the pit. The process involves drying the tailings in reservoirs prepared for this purpose, until reaching low humidity levels and their subsequent return to the original pit, that is, to the place where the ore was extracted. This practice creates a closed disposal cycle, promoting a more environmentally responsible reuse of the mined space.

In operational terms, the new configuration also represents a major evolution. Tailings disposal in the pits themselves improves logistical efficiency and reduces the risks associated with the transport of the material. In addition, it adds benefits from the perspective of operational safety and environmental integrity by eliminating conventional dams and adopting dry solutions that offer lower

geotechnical risk and greater operational control. This change is fully in line with society's expectations about the mining sector and the criteria of regulatory bodies, having been widely debated in public hearings during the licensing process.

In 2023, MRN began operations at the reservoir designed for pit tailings disposal technology, SP-25. Furthermore, in 2024, construction of two new reservoirs with the same technology was initiated. The expectation is that, from 2026, the company will no longer need to build new tailings deposits until the end of the operation's useful life, consolidating a definitive and sustainable solution for the material's management.

### This new system brings significant environmental gains, such as:



Reduction of the need for vegetation suppression;



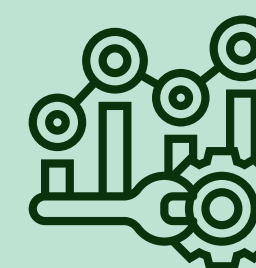
Acceleration of forest recovery in mined areas;



Optimizing existing reservoirs for drying tailings;



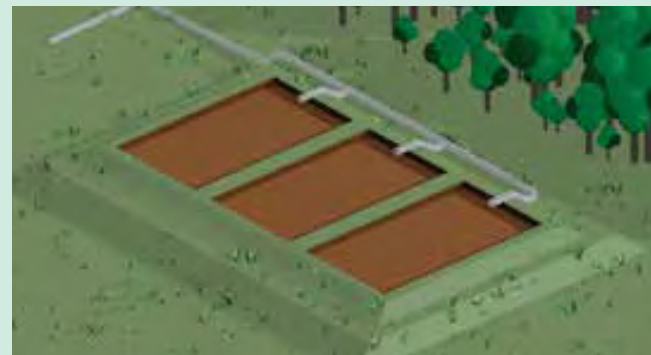
Alignment with international tailings management best practices;



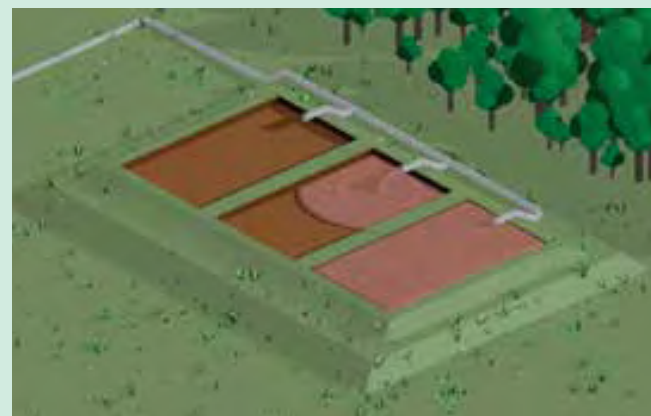
Eliminating the need to build up to ten new reservoirs, which previously had been scheduled to be installed in areas containing native or reforested woodlands.

## How does this system work?

### Before



The tailings were deposited in reservoirs until they were full.



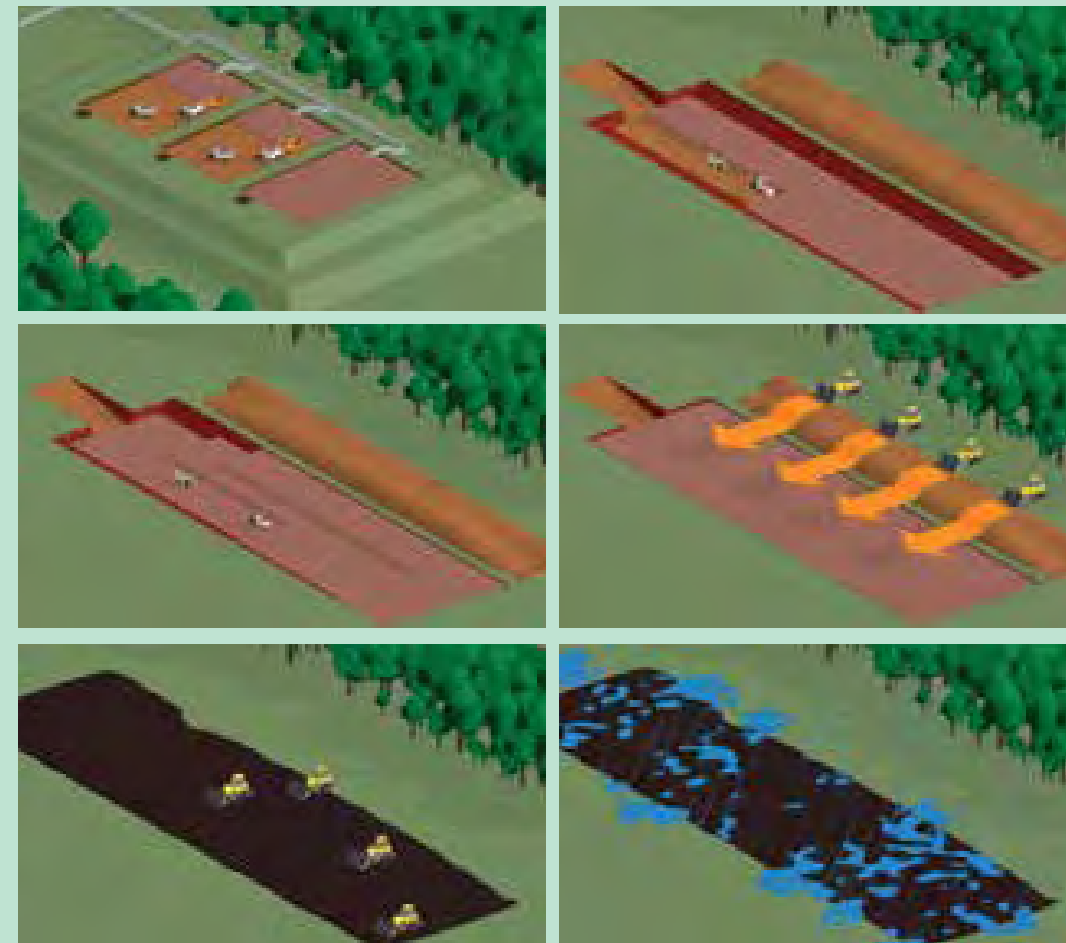
After drying the tailings, the filled reservoirs were reforested.



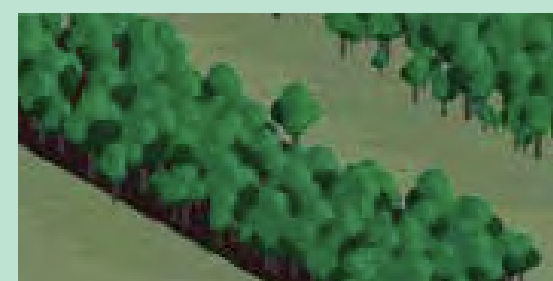
And new reservoirs had to be built to receive the bauxite tailings.

### With the PNM (New Mines Project)

After drying, the tailings are removed from the reservoirs and deposited in the pits where bauxite mining has already been completed. That is, go back to where it came from.



The filled pits are composed of soil and black earth, and then reforested with native vegetation.



## What are bauxite tailings?

It is the waste that remains after washing the ore, in a simple process that does not use chemicals, only water. The tailings, formed by a mixture of soil and water - common materials found in nature - are sent to reservoirs that after being filled are deactivated and reforested using native vegetation.



*Tailings are the mixture of soil and water left over from the bauxite washing process*

## Environmental Licensing

Considering the territorial impact and potential concerns of populations in the project's direct and indirect areas of influence, as well as the legal requirements tied to the environmental licensing process, MRN followed all due procedures with the project's key stakeholders. The company conducted studies and organized forums aimed at strengthening relationships by establishing effective communication channels.

The PNM's environmental licensing journey began in October 2022, when the Environmental Impact Study (EIA) and the Environmental Impact Report (Rima) were filed with Ibama. The referenced documents were prepared by an independent multidisciplinary team, whose technical analysis mapped all potential impacts on the physical and biotic environments, as well as the socio-economic impacts of the new project, along with proposed mitigation measures and socio-environmental controls. This process follows essential steps to ensure that all social and environmental mitigation and compensation measures are carefully considered. Since the beginning, MRN has adopted a transparent and participatory approach, promoting engagement with communities and other stakeholders. Among the main actions carried out in 2023 and 2024, the following stand out:

*Poliane Gonçalves,  
Environmental  
technician.*



- **Preliminary and Sectoral Meetings:**

They took place between January and April 2023, covering more than 40 rounds of meetings, 5 quilombola territories, 50 riverine communities and 60 actors potentially interested in the project such as: city halls, municipal councils, trade associations, community associations, suppliers, press, workers, representative entities, among others. Although not mandatory during the environmental licensing process, preliminary meetings were conducted by MRN because it considered direct communication with the project's stakeholders to be a good form of dialogue and, consequently, preparation for the public hearing. During these meetings, demands and concerns from local communities were identified and analyzed. In addition to the explanation of the project itself, the main impact mitigation programs suggested in the EIA were also listed, such as the Labor Management Program (PGMO).

At the time, there was ample feedback so that all community demands were heard and included in a survey, which became the basis for MRN to plan its social investment in the coming years.

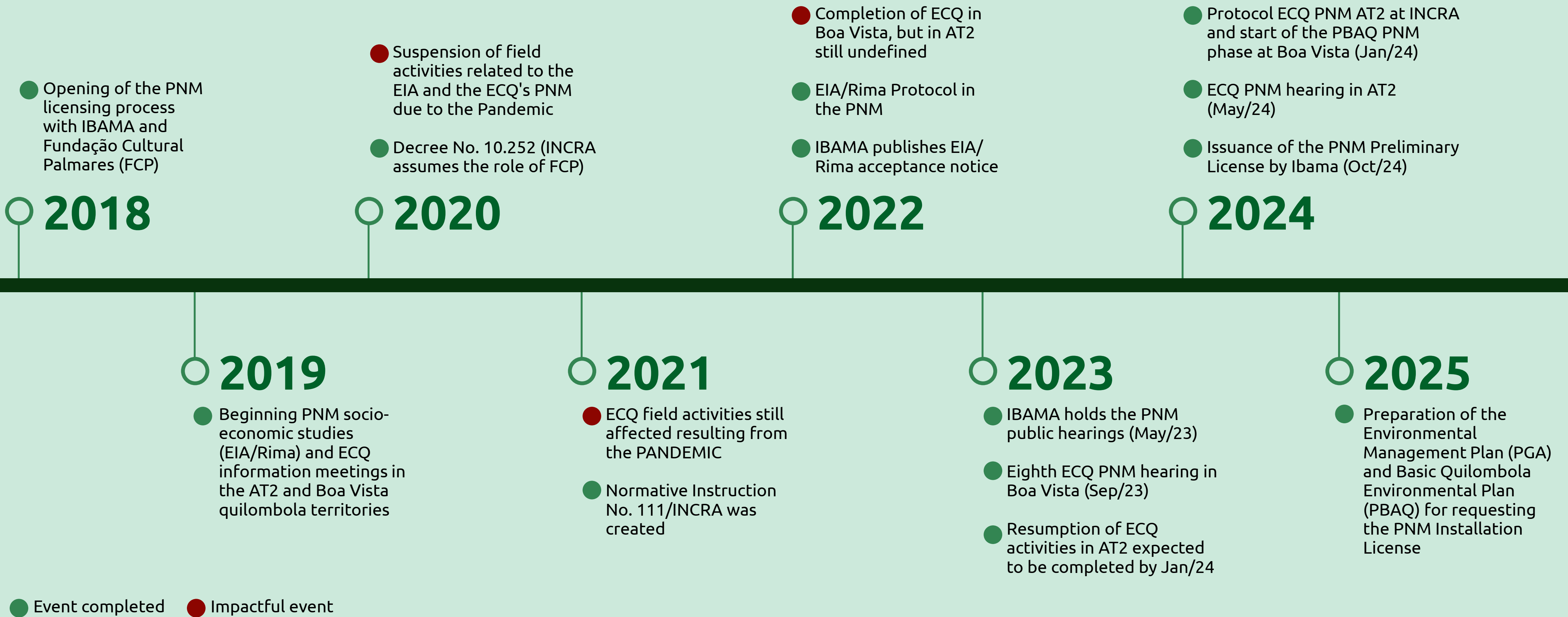
- **Public Hearings:** Held in May 2023 in Faro, Terra Santa, and Oriximiná under the Ibama's coordination, the hearings totaled approximately 20 hours and drew around 1,600 participants. Some 192 contributions—both oral and written—were officially recorded. Public hearings are a mandatory and highly relevant stage in the environmental licensing process. They provide an opportunity for the company to present its project in detail, to the licensing agency, highlighting both the expected benefits and the associated impacts and mitigation measures. All questions raised, and their respective answers were forwarded for analysis to Ibama.

- **Free, Prior and Informed Consultation to quilombola territories:** The PNM project is in the Area of Direct Influence (ADI) at the Boa Vista and Alto Trombetas II quilombola territories. During the environmental licensing process, the dialogue with these communities occurred mainly through the Quilombola Component Study (ECQ), which was based on the premises of Free, Prior and Informed Consultation, as provided for in Convention 169 of the International Labor Organization (ILO), being a mandatory element within the MRN environmental licensing. The objective was to ensure that the concerns and suggestions of the community members were formally considered. With the ECQ, MRN and the licensing bodies became better aware of the reality in the communities and the potential impacts resulting from the proposed project. After completing the process, INCRA (National Colonization and Agrarian

Reform Institute) is called upon to issue an opinion attesting to the project's feasibility from an environmental, social and economic point of view, thereafter consolidated with Ibama's environmental licensing process. In September 2023 and May 2024, INCRA held consultation meetings with the communities and, in both cases, there was a favorable opinion issued by the institution. The recommendations resulting from the process will be incorporated into the Basic Quilombola Environmental Plan (PBAQ), which is the next licensing stage.

With the issuance of the Preliminary License (PL) in 2024, MRN expects in the coming years—after fulfilling the conditions established in the PL—to obtain the Installation License (IL) and Operating License (OL) for the Novas Minas Project, as well as the OL for the Transmission Line Project.

The licenses obtained not only enable the continuity of operations but also corroborate MRN's current practices.



## Value Chain

Clarity regarding the various links present in the value chain, as well as the continuous and strategic interaction with them, is essential to ensure shared value generation. Proactively engaging with suppliers, customers, employees, communities, shareholders and other stakeholders makes it possible to understand their expectations and align practices that favor joint development. Through this active engagement, the company seeks not only to meet regulatory and market demands, but also to consolidate long-term partnerships based on trust and transparency.

This broad value chain perspective, for example, enabled MRN to obtain ASI Chain of Custody (CoC) certification in 2022, and to maintain it every year since. As a result, the company continues to issue the Bauxite Certificate for the raw material it produces. This certification is essential to strengthen transparency between the links in the aluminum value chain. Through it, MRN ensures that customers and business partners can have confidence in the traceability of the material used, from the extraction of bauxite to its shipment.



**"The achievement and ongoing maintenance of these certifications demonstrate that the company not only complies with international sustainability standards but also plays an active role in building a more responsible industry that is aligned with the expectations of shareholders, customers, suppliers and society at large. In addition, it reinforces the competitiveness of the business in an increasingly demanding market regarding ESG criteria."**

**Wvagno Ferreira**, General Manager, Performance Management, Risks and Internal Controls



### Bauxite Certificate

The *Bauxite Certificate* is a document issued by MRN to customers who operate in the aluminum chain and who are certified according to the ASI Chain of Custody standard, ensuring that the certified material is controlled during the production, transformation and marketing stages. In all, there are five criteria evaluated from extraction to shipment: Management and Responsibilities system, primary aluminum, mass balance system, issuance of CoC documents, and allegations and communications.

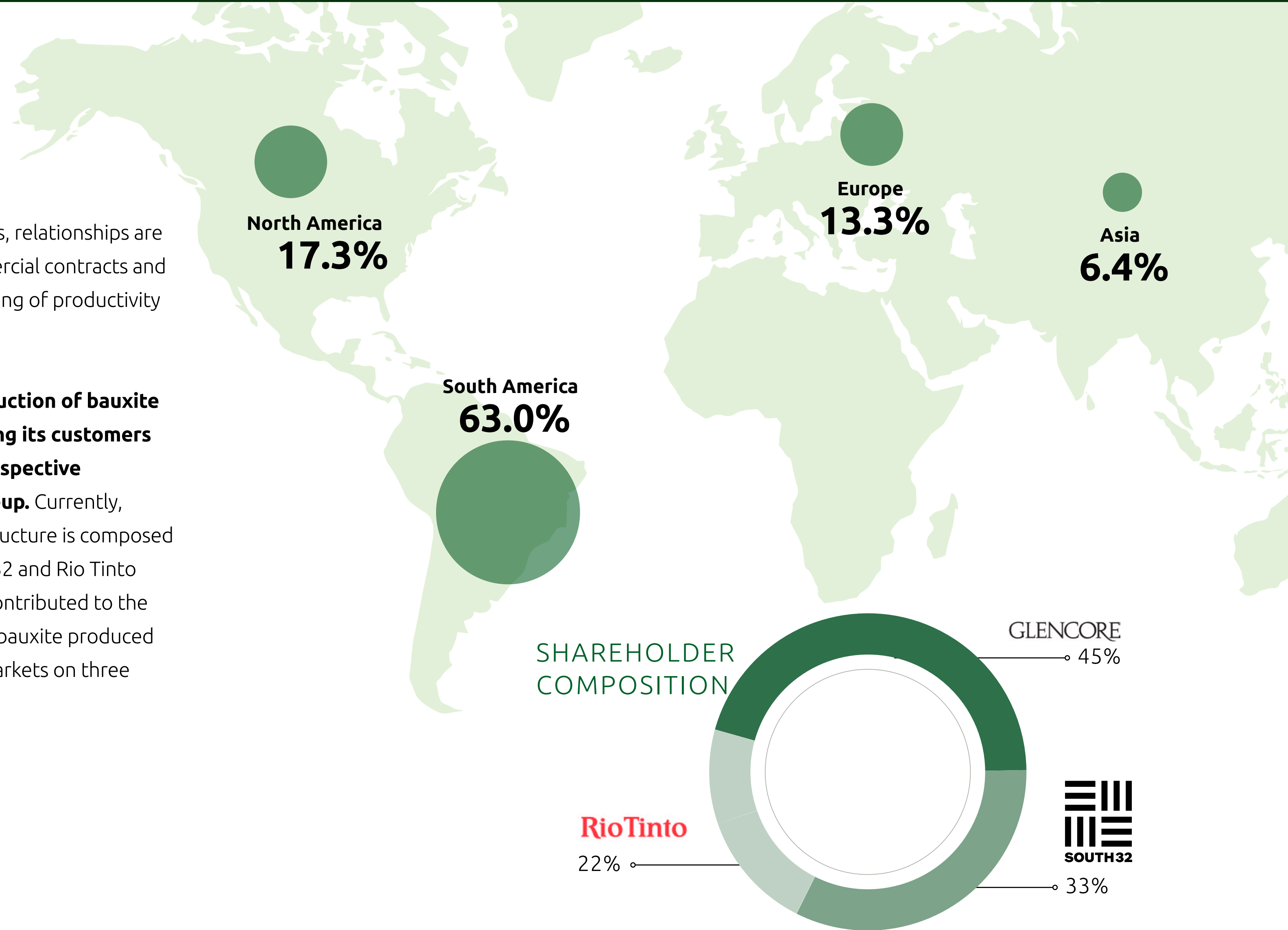
## Customers and Shareholders

MRN's uniqueness stems also in the overlap of two stakeholder groups that most influence its business model: shareholders and customers. The company is a joint venture, whose produced raw material is destined directly to its shareholders or to companies indicated by them, with commercial governance maintained under the responsibility of MRN and its partners. Despite this duality, the roles and responsibilities are clearly defined in the company's operating routine. Shareholders participate in the strategic direction through representatives on the Board of Directors and other Advisory Committees, while,

regarding customers, relationships are governed by commercial contracts and continuous monitoring of productivity and performance.

**Annually, the production of bauxite is distributed among its customers according to the respective shareholding makeup.** Currently, MRN's corporate structure is composed of Glencore, South 32 and Rio Tinto companies, which contributed to the 12.8 million tons of bauxite produced by MRN reaching markets on three continents in 2024.

**All MRN bauxite shipments to ASI CoC certified customers are accompanied by a *Bauxite Certificate*.**



## Suppliers

The relationship with suppliers goes beyond simply acquiring goods and services: it represents an extension of the business commitment to the integrity, efficiency and regional development where MRN operates.

In 2024, from the more than R\$ 808 million spent on material purchases, about R\$ 655 million was purchased from suppliers in West Pará (Terra Santa, Faro, Santarém, Oriximiná and Óbidos), totaling 81% of local purchases.

Regarding services, about R\$ 62 million was disbursed with contractors in West Pará, equivalent to a monthly average of more than R\$ 5 million. These amounts were used in the remuneration of assorted services. They include those provided by community cooperatives, which employ 533 people, as well as mechanical and civil maintenance, passenger transport, logistics, civil construction, earthworks and equipment rental.

**MRN's supplier approval and management process is conducted 100% digitally, ensuring traceability, transparency and agility at all stages. Registration can be initiated at the company's invitation or at the supplier's own initiative, promoting equal opportunities and expanding the partner base.**

The approval is conducted in three auditable stages: submission of data and documents, automated documentary analysis and approval or adjustment. Only properly qualified suppliers may be hired, per the company's technical and regulatory criteria.

Risk analysis is integrated into the complete supply cycle — from selection to delivery

monitoring — and considers socio-environmental, financial and integrity aspects. During the hiring process, technical opinions, financial assessments, eligibility reviews and, when necessary, additional risk management diligence are carried out.

After contracting, the supplier undergoes continuous monitoring. This includes receipt inspections, logistical controls and evaluation of compliance with scope, deadlines and quality standards. All management is supported by digital tools that consolidate strategic data, ensure contractual compliance and assist in identifying opportunities for improvement, strengthening alignment with MRN integrity standards and stakeholder trust.

Recognizing our role in the region's various economic chains, we prioritize hiring regional suppliers.

**Local purchases totaled R\$ 717.2 million in Western Pará.**

In 2024, MRN's Procurement department faced a scenario of currency volatility and increased social and environmental demands, which required a balance between cost competitiveness, innovation and sustainability. In this context, among the main challenges during the period were:

- **Responsible cost competitiveness:** Maximize productivity gains and negotiate more favorable financial conditions, without compromising the quality, safety and ESG criteria requirements that guide acquisitions.
- **Fostering alternatives that optimize operating costs:** Work together with the demanding areas to identify and qualify products, inputs and technologies that increase operational efficiency and contribute to operating cost optimization.
- **Operational integration via the *Key Account* model:** Improve the interface between Supplies and Operation through "*Key Account*" managers, ensuring technical alignment, quick decision-making and shared risk management in real time.
- **Service level excellence:** Ensure service within MRN standards — time, quality and cost — reinforcing the trust of internal and external customers and consolidating a resilient and high-performance supply chain.
- **Shortage of skilled labor:** Some markets, especially the more technical ones, face a shortage of qualified professionals to provide services.

The rigor and transparency that characterize MRN's procurement governance are underpinned by a robust regulatory framework. These are guidelines and procedures that ensure legal compliance, risk management and adherence to socio-environmental responsibility criteria, as of the definition of who can contract through to the standards required in the contracts. Among the main documents that guide this governance are the Responsible Procurement Policy, the Code of Conduct, the approval procedures and integrity and financial due diligence, in addition to data privacy standards.

Innovation was also at the forefront in 2024. Initiatives such as automating quotations using robots, defining a product categories tree, creating *vendor lists* and actively participating in industry events

have consolidated MRN as a benchmark in efficiency and digital transformation in supplies procurement. The implementation of systems such as BI Spend Analysis, the Contract Management Lighthouse and the SGC/SAS ensure the visibility and governance necessary to maintain a resilient, responsible and constantly evolving supply chain.

**MRN also cultivates strategic partnerships with suppliers who share its commitment to local development.**

In 2024, companies such as Komatsu, Sotreq, and WLM not only played key roles in MRN's supply chain through major contracts but also contributed to community development by offering training programs for local residents in equipment operation, strengthening the positive social impact of mining activities in the region's communities.

# Highlights of the year



Leader in bauxite production in Brazil

**12.8 million**  
tons of bauxite produced in 2024

**13.1 million**  
tons shipped

**60%** for the domestic market

**R\$ 42.2 million**  
million in social programs and actions

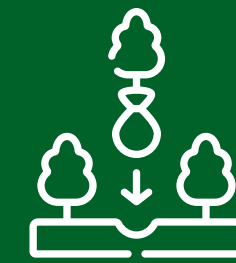
**62**  
engaged communities

**85%**  
of Pará residents in the staff

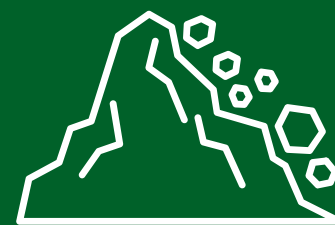
- **4 years** of "MRN for All"
- **Increase from 5.3% to 8.0%** in the participation of community members (quilombolas and riverine dwellers)
- **Increase from 10.5% to 12.8%** of female participation



**576,532**  
planted seedlings



**379.8 ha**  
of total reforested area in 2024



**+2.2 million**  
cubic meters of dry tailings removed



**84%**  
of water recirculation



**99.7%**  
of industrial waste destined for reuse, recycling or treated by means of reprocessing

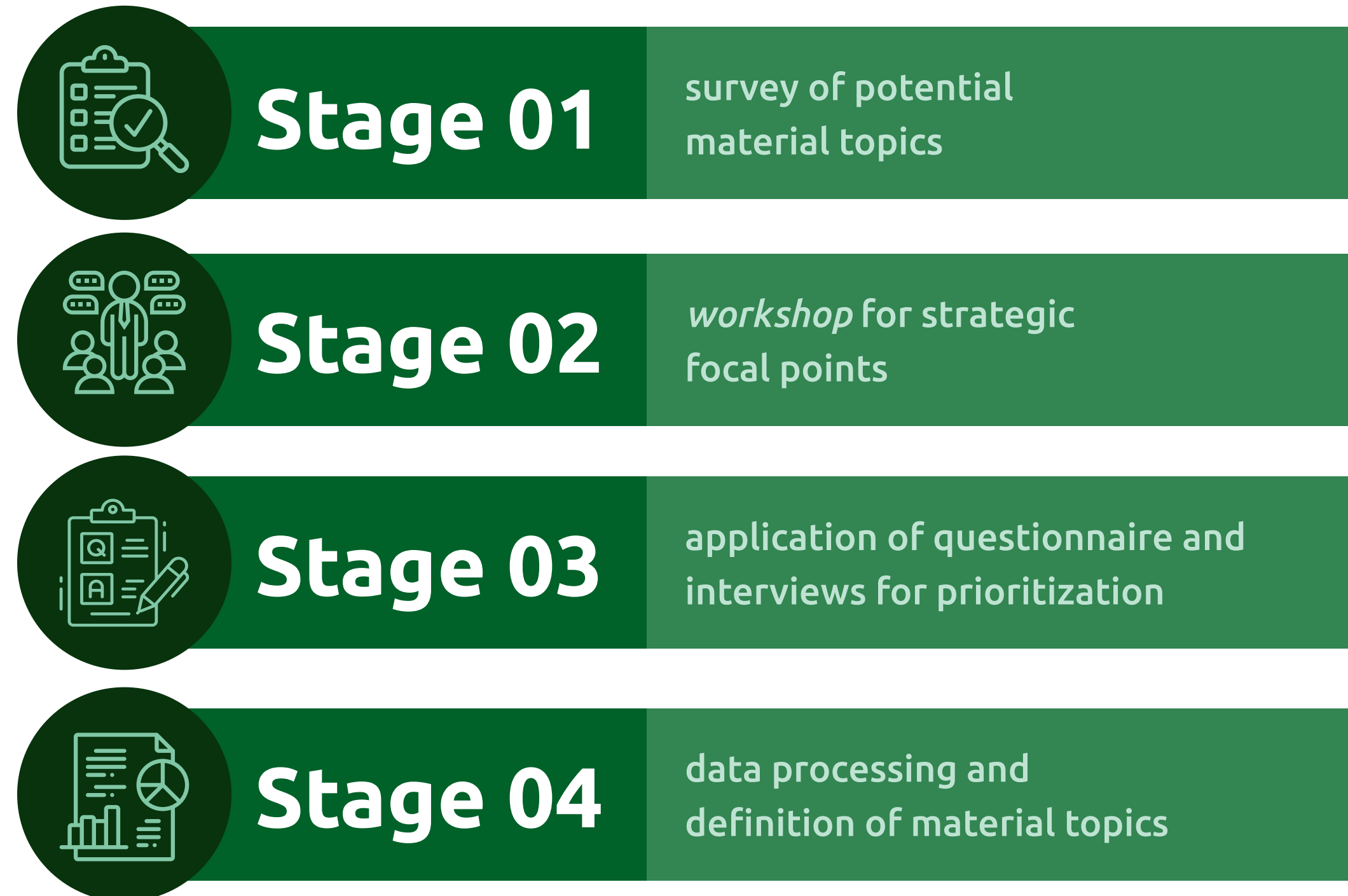
- **Preliminary License (PL)** issued for the New Mines Project (PNM)
- **Installation License (LI)** issued for the Transmission Line Project (PLT)

## Certifications

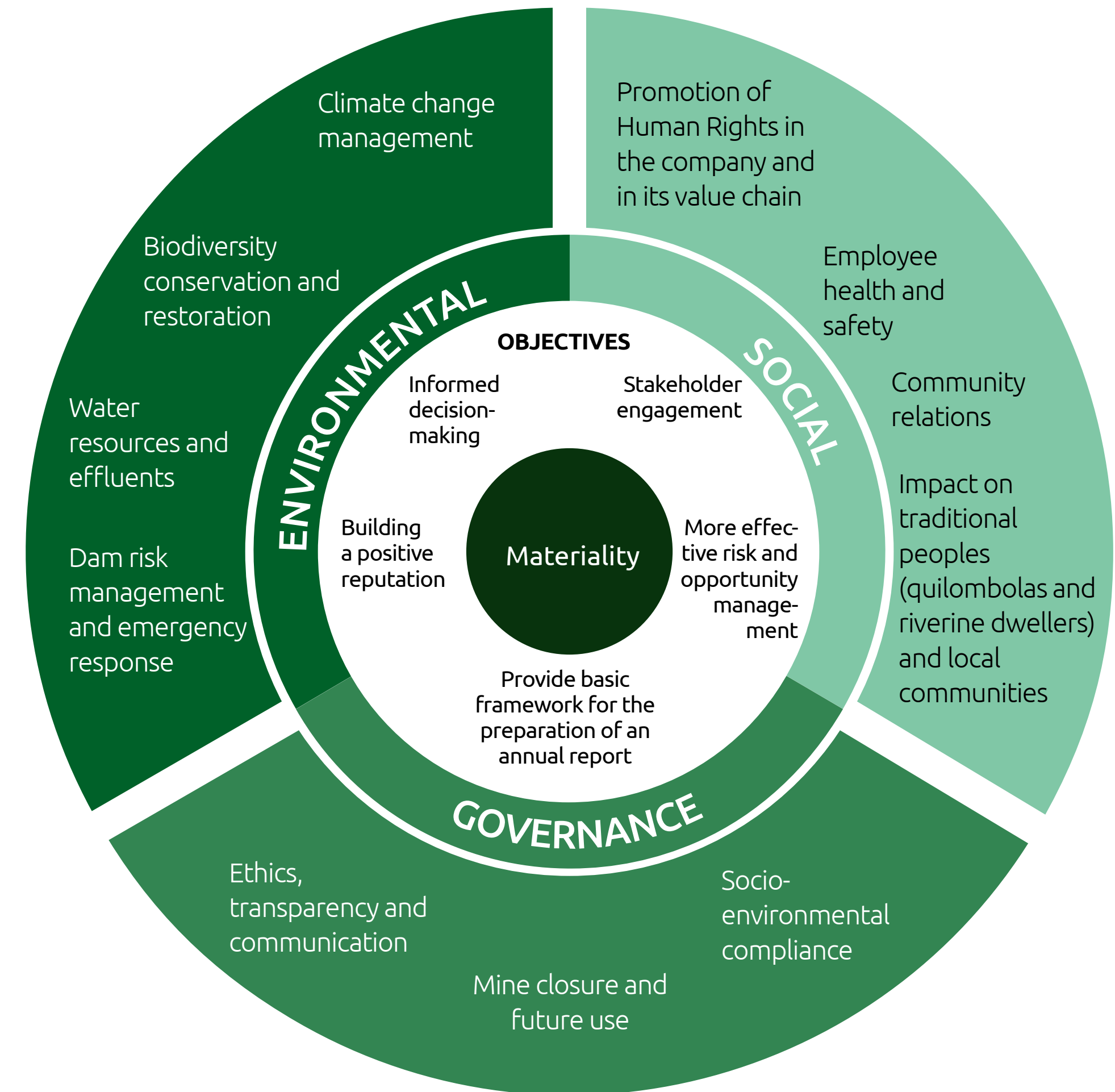
- ISO 14001** – Environmental Management
- ISO 45001** – Occupational Health and Safety Management System
- ISO 37001**: Anti-bribery management
- ISO 37301** – Compliance Management
- ASI Performance Standard** – ESG Requirements Management
- ASI Chain of Custody** – From Extraction to Bauxite Shipment
- CONAMA 306** – Porto Environmental Audit
- GHG Protocol Gold Seal** in the Atmospheric Emissions Inventory
- ISPS Code** - Audit of the operational processes of bauxite shipments in the MRN port to verify compliance with the legal requirements established by the ISPS Code (International Code for the Protection of Ships and Port Facilities).

# Materiality and Stakeholders

In 2023, MRN carried out its materiality assessment to identify and address the most relevant topics for the company's context. The process served as an initial exercise in understanding key priorities, both from the internal perspective of its employees and based on insights into the expectations of its external stakeholders.



As a result, 11 material topics were defined, which have greater relevance for the company and which, for the most part, coincide with the topics already treated as a priority within MRN. The topics were duly validated by the Sustainability Committee.



Throughout 2024, MRN sought to incorporate them on several fronts, systematically bringing materiality to the company's reality, ensuring that key processes address MRN's material topics and reducing potential risks. In 2024, MRN revised its risk classification framework—covering both operational and project-related risks—with minor adjustments to more directly incorporate ESG dimensions. This update facilitates the identification and monitoring of new risks related to the material topics. There was also the incorporation of material topics in MRN's community relations management system that contemplates the company's interactions with community members. This approach allowed MRN to manage stakeholder interactions by material topic, incorporating materiality as a lens for addressing its relationships with local communities.

**Since 2022, MRN has controlled and disseminated a Sustainability Goals Plan that introduces targets from a variety of themes, their respective indicators, as well as historical performance data and main actions defined to achieve the goals.**

The definition of materiality also served as a basis for revising this Plan, directing the creation of new goals, as well as consolidating some existing ones.

Altogether, there are 10 targets distributed among 7 of the 11 material topics.

[GRI 3-2]

## SUSTAINABILITY TARGETS

MATERIAL TOPIC	TARGET	STATUS 2024
<b>Biodiversity conservation and restoration</b>	Maintain the survival rate of rescued species >95%	99%
<b>Climate change management</b>	Reduce Scope 1 and 2 CO <sub>2</sub> e emissions by 25% by 2027	Planned
<b>Dam risk management and emergency response</b>	Implement GISTM in 100% of the operation by August 2025	73%
<b>Water resources and effluents</b>	Reduce average water consumption from 19.9 to 16.0 million m <sup>3</sup>	21 million m <sup>3</sup>
	Achieve zero environmental accidents with spills with significant damage (above negligible)	0
<b>Community relations</b>	Achieve 100% of community manifestations answered by the company's communication channels	100%
<b>Employee health and safety</b>	Keep absenteeism rate below 1.3	0.92
	Maintain reportable accident frequency rate less than 1	0.73
	Have zero fatalities in the workplace	0
<b>Ethics, transparency and communication</b>	Keep 100% employees trained in the MRN Code of Conduct	100%

Throughout 2024, the categories of stakeholders relevant to the company were also reviewed. The process aimed to unify and standardize the stakeholder groups already mapped and thus ensure that management and engagement are

conducted in a more systemic and orderly manner. Individuals or groups that have an impact on MRN and/or are affected by its operations—and therefore hold some level of interest in the company—were identified and classified accordingly.

MRN believes that maintaining strong relationships with its diverse stakeholders grounded in transparency and trust is essential for business continuity and regional development. To that end, the company ensures open channels for

dialogue, allowing stakeholders to voice concerns or share feedback. The frequency of engagement varies by stakeholder group and the specific context in which the company operates. For MRN, its stakeholders are distributed in the following sixteen categories:



Each category has a specific form of engagement and MRN areas with greater or lesser correlation.

CATEGORY	PURPOSE OF THE RELATIONSHIP	FORMS OF INTERACTION	PRIORITY ISSUES
<b>Shareholders</b>	Provide detailed information on projects, financial results and operational and socio-environmental impacts, with a view to ensuring MRN's alignment with long-term strategies, maximizing return on investment and preserving confidence in the company's governance and growth.	Meetings of the Board of Directors, meetings of the Advisory Committees, direct contacts between the Executive Board and the Board of Directors.	Financial performance, PNM development and progress, risk management; corporate governance; sustainability and social responsibility.
<b>Customers</b>	Generate mutual value through the sale of the raw material that is produced, prioritizing quality and maintaining a relationship aimed at meeting the demands of the markets served.	Weekly business meetings, technical visits, email contacts and/or phone calls.	Bauxite quality, quantity produced, production projections and shipments to be carried out.
<b>Suppliers</b>	Strengthen commercial relationships with a focus on long-term partnerships and integration of new suppliers that offer technical and technological solutions aimed at optimizing costs.	On-demand workshops and business meetings, technical visits through technical process, and/or product development, quotations and contacts by email and/or daily phone calls.	Development of new suppliers, search for technical and technological solutions, and competitiveness in contracting processes.
<b>Employees</b>	Build a relationship of trust and transparency, aligned with the company's organizational purpose and strategic objectives. Generate mutual value, promote engagement, development and belonging.	Face-to-face, online meetings, active listening, internal communications and dialogue forums.	Professional development, recognition, compensation, growth opportunities, health and safety, organizational climate, diversity and inclusion.

CATEGORY	PURPOSE OF THE RELATIONSHIP	FORMS OF INTERACTION	PRIORITY ISSUES
<b>Outsourced Workers</b>	Maintain a close relationship, ensuring a healthy and productive work environment and promoting engagement and a sense of belonging to the company's organizational culture. MRN manages this group through a collaborative and consultative approach with the managers of the contracted companies.	Meetings, active listening, internal communications and structured dialogue meetings.	Execution and monitoring contracted and planned activities, from mobilization, integration training, health and safety requirements, as well as the results of third-party management that are presented to a contractor committee.
<b>Populations of the Neighboring Communities</b>	Promote the active participation of the populations living in the vicinity of the MRN, strengthening dialogue, trust and mutual collaboration. Share information on the evolution stages of the environmental licensing process for the company's strategic projects.	Meetings, institutional visits, Falaí Comunidade (Community Speak Up) channel (Whatsapp, email, forms, surveys, etc.).	Water supply, health, education, institutional strengthening, income generation, energy, environment and infrastructure .
<b>Community Associations</b>	Identify the expectations and concerns of communities to be considered and incorporated into the decision-making process. Identify issues that may compromise MRN's image, as well as opportunities to generate a positive impact on communities.	Meetings, institutional visits, Falaí Comunidade (Community Speak Up) channel (Whatsapp, email, forms, surveys, etc.).	Water supply, health, education, institutional strengthening, income generation, energy, environment and infrastructure .
<b>Communities</b>	Promote the active participation of communities, strengthening dialogue, trust and mutual collaboration.	Meetings, institutional visits, Falaí Comunidade (Community Speak Up) channel (Whatsapp, email, forms, surveys, etc.).	Water supply, health, education, institutional strengthening, income generation, energy, environment and infrastructure .
<b>Class Entities (Labor Unions)</b>	Establish an institutional relationship based on dialogue, mutual respect and the quest for balanced solutions. Ensure a healthy work environment, preventing conflicts and promoting fair negotiations that meet the interests of both the company and the employees.	Periodic interaction, with planned meetings and extraordinary meetings when necessary. The company's approach is predominantly consultative and negotiation-based, formatted as in-person dialogue through negotiation tables and online communication and alignment efforts.	Collective agreements, working conditions, salary adjustment, benefits, working hours, occupational safety and health, stability, impacts of organizational changes and collective conflict management.

CATEGORY	PURPOSE OF THE RELATIONSHIP	FORMS OF INTERACTION	PRIORITY ISSUES
<b>Representative Entities</b>	Establish a strategic partnership with the representative entities to promote mining sector development. To support the development and implementation of public and regulatory policies that benefit the sector—balancing the interests of companies and local communities—while helping grow the market, promote responsible mining, and ensure stakeholders’ needs are properly represented and addressed.	Justified formal meetings, on demand.	Sector regulation, sectoral interests, project implementation support, corporate social responsibility.
<b>Government Entities</b>	Establish a relationship of cooperation and transparency, to ensure compliance with the regulations that guide MRN's activities.	Justified formal meetings, on demand.	Regional development, socio-economic impacts, compliance with regulations, environmental licensing, sectoral interests, project implementation support and corporate social responsibility.
<b>Government</b>	Establish a relationship of cooperation and transparency to ensure compliance with the regulations that guide MRN's activities.	Justified formal meetings, on demand.	Regional development, socio-economic impacts, compliance with regulations, environmental licensing, sectoral interests, project implementation support and corporate social responsibility.
<b>Public Prosecutor's Office</b>	Establish a transparent dialogue relationship to demonstrate and ensure legal compliance and the protection of social, environmental and labor rights.	Justified formal meetings, on demand.	When it occurs, it is usually about ongoing administrative procedures, which may involve labor or socio-environmental issues.

CATEGORY	PURPOSE OF THE RELATIONSHIP	FORMS OF INTERACTION	PRIORITY ISSUES
<b>Media Outlets</b>	Generate a positive company agenda in the media and contribute to strengthening MRN's reputation and image, in order to highlight MRN's commitment to responsible mining in the Amazon.	<i>Releases</i> , notes, interviews, visits by journalists to MRN operations, Meetings of Communicators.	Socio-environmental programs, projects and actions, educational and generation and income programs, economic investments in the region, actions in riverine and quilombola communities, certifications, safety of operations and PAEBM seminars and simulations.
<b>Third Sector</b>	Partner in promoting social, cultural, environmental and community development initiatives to complement government actions through corporate social responsibility and positively impact communities and the environment.	Meetings, electronic and telephone contacts.	Social, cultural, environmental and community development initiatives.
<b>Educational Institutions</b>	Acting in social and educational development, by strengthening links with universities and technical schools to promote access to education for young people from local communities and training qualified labor.	Meetings, participation in educational and community forums, conducting research and extension projects.	Education and training programs, financial support, employment opportunities, research and extension projects.

For 2025, a materiality renewal process will be carried out, which will include changes in scale and methodology. Regarding scale, the materiality assessment scope will be expanded to include the previously mentioned stakeholder groups. Regarding its methodology, the premises recommended by the GRI are further incorporated, where the impact view helps in surveys for potential topics. Most are expected to be confirmed as materials, and there may be small adjustments that reflect the company's new moment.





02

# Environment

Ana Paula Farias,  
environmental analyst.

## Environmental Management

Operating in a National Forest, in the heart of the Amazon, poses significant challenges, especially in the environmental dimension. Aware of this context, MRN structures its operations based on a robust environmental management program. It is guided by minimizing impacts, legal compliance, continuous improvement and socio-environmental responsibility.

This commitment has been strengthened over more than 45 years of the company's operations, during which MRN has built extensive local biodiversity knowledge, the region's physical resources and their interconnections with traditional communities. This learning guides an increasingly structured, efficient and integrated environmental performance model, which reflects the maintenance of ISO 14001 certification since 2001.

ISO 14001 is an international standard that establishes guidelines for implementing the Environmental Management Systems (EMS), focusing on the management of environmental impacts, compliance with legal requirements and adopting good practices. In the mining sector, its adoption indicates good operational environmental maturity and effective risk control and prevention measures.

**At MRN, environmental management is developed based on three integrated fronts: physical environment, biotic environment and forest management.**

The following sections outline the main programs and initiatives under each focus area, followed by key results and additional details.

Actions related to the physical environment include monitoring water quality, effluents, air emissions—including particulate matter—and noise levels. These monitoring activities assess the effectiveness of the environmental control systems in place, such as the stormwater drainage system, road humidification and oil-water separators. Actions also include managing energy consumption and urban and industrial waste through treatment facilities within MRN's own infrastructure.

Currently, more than 200 water and air quality monitoring points are distributed over an extensive and often difficult to access network, requiring long car trips followed by walks through the forest. This logistical effort reflects the team's commitment to the accuracy and representativeness of the data collected,



*Management of epiphytes, plants that grow on other plants, usually trees, without being parasitic.*

which are fundamental for decision making and to continuously validate the various controls adopted.

**In the biological environment, actions begin even before vegetation clearing, with wildlife deterrence procedures to reduce risks to local fauna.** Plant species of interest are also rescued before and after plant suppression and used for nursery reproduction and reforestation.

In forest management, the company stands out for restoring vegetation within two hydrological cycles after mining, guided by its Degraded Area Recovery Plan (PRAD). This is made possible using strip mining, a technique that shortens the time between vegetation clearing and area restoration, an advantage over traditional mining models.

As a result, the company maintains ongoing reforestation practices, enabling

continuous improvement in techniques and greater effectiveness in environmental recovery. As a complement, the company runs the Ecological Restoration Monitoring Program (PMRE), which assesses not only landscape recovery but also the restoration of ecological functions and the successful reintegration of mined areas into the local ecosystem.

All these actions — when considered in the territorial and operational context in which MRN is inserted — gain complexity and relevance. The monitored area's scale, logistical complexity in sampling, technical rigor across programs, and integration with other company teams together reflect practices that go beyond legal compliance, setting a high standard in environmental monitoring.

All operating activities are preceded by environmental impact studies, which

identify potential impacts and define preventive, mitigating and compensatory measures. Environmental programs related to the physical environment, biodiversity, and forest management are built on these studies, with control and monitoring systems that track effectiveness. Information on all programs is reported annually in the Environmental Performance Annual Report (RADA), the official document submitted to the licensing authority via the Electronic Information System (SEI) and made publicly available.

**MRN's environmental governance is reinforced by internal systems that ensure the systematic monitoring of environmental permits and conditions.**

For this, the company uses a tool that supports management, deadline controls and traceability of environmental commitments.

Receiving the Preliminary License (LP) in 2024 for the continuation of MRN's operations under the New Mines Project (PNM) reinforces environmental authorities' recognition of the project's socio-environmental viability and the environmental management practices already in place. MRN is now preparing the Environmental Management Program (PGA), a required document for the Installation License (LI) application. The program aims to standardize existing initiatives, bringing greater consistency and continuity to environmental actions.

This chapter presents key environmental management aspects—covering biodiversity, air emissions, energy, water resources and effluents, and waste—along with a dedicated section on dam management, considering its environmental interfaces.

# Biodiversity

The Amazon holds unparalleled biodiversity and is one of the richest, most complex ecosystems on the planet. Its protection is essential to maintaining ecological balance, ensuring species survival, and preserving the environmental services that sustain the forest and the communities that depend on it.

With operations located within the Saracá-Taquera National Forest, a federally protected conservation unit and dense tropical rainforest, MRN recognizes its responsibility to operate in a region of high ecological importance. Aware that its activities cause temporary impacts on biodiversity, particularly in areas where vegetation is cleared, MRN implements preventive, mitigation, and compensation measures to reduce these effects. Vegetation clearing, carried out according to the annual

production plan, follows technical criteria and is conducted under strict environmental control. Strategies such as strengthening partnerships with scientific institutions and environmental organizations are also part of the company's commitment to protecting biodiversity.

**MRN adopts measures to mitigate negative residual impacts that cannot be fully avoided or restored by direct actions.**

Carried out within the area influenced by operations and tied to the environmental licensing process, these actions include programs such as Wildlife Management, Plant Rescue, Ecological Restoration and Aquatic Biota Monitoring, as well as compensation for timber and non-timber products, ensuring that local communities receive legally required reparations. Strict compliance with environmental conditions ensures compliance



*Bee monitoring, the main pollinators of the Amazon.*



With operations located within the Saracá-Taquera National Forest, a federally protected conservation unit and dense tropical rainforest, MRN recognizes its responsibility to operate in a region of high ecological importance.



*Américo Penha, Nursery Assistant, working with seeds at the Forest Nursery.*

with management programs and reinforces the company's commitment to proportional impact reparations.

Mitigation actions are measurable, based on technical, legal and social criteria, and follow distinct stages — planning, implementation, monitoring and reporting — aimed at restoring vegetation cover, maintaining functional biodiversity, and supporting the return of wildlife. These measures generate positive externalities such as water resource protection, soil stabilization, carbon capture and preserving traditional knowledge through dialogue with riverine and quilombola communities. MRN seeks alternatives that align ecological restoration with social demands, ensuring transparency, traceability, and compliance verified through audits by licensing authorities.

In a complementary way, and in connection with the global effort to preserve biodiversity and aligned with the United Nations Sustainable Development Goals, MRN is committed to exploring how it can achieve no net loss of biodiversity in its projects and operations, with focused efforts by 2030. Given its operations in the Amazon — one of the world's most complex ecosystems — biodiversity has long been a strategic priority for the company. This commitment will be further strengthened through the development of new policies and tools aimed at achieving this goal.

**Biodiversity management, in its broad form, has a strong correlation with two programs managed by MRN: the Degraded Areas Recovery Program (Prad) and the Ecological Restoration Monitoring Program (PMRE).**

### Degraded Areas Recovery Program (PRAD)

Restoring mined areas at MRN follows a process carried out in four integrated phases. It begins with planning, which involves defining the area to be restored – which is proportional to the mined area within a maximum time horizon of up to two hydrological cycles – and selecting native species to the local ecosystem. Then, in the implementation phase, planting is carried out using seedlings grown from germplasm rescued or collected in the region itself, including seeds purchased from local communities. In this way, it is possible to guarantee the genetic identity and species adaptability.

**This means that restoration targets are equivalent to the impacted areas, are based on ecological diagnostics and learnings accumulated over previously successful experiences.**

The process includes continuous monitoring of restored areas, assessing vegetation cover, plant diversity, wildlife return, and overall ecological functionality—closely tied to the PMRE. Finally, in the maintenance phase, forestry practices and preventive actions are adopted to control invasive species, ensuring healthy ecosystem regeneration.

The program's objectives are proportionate, feasible and measurable. This means that restoration targets are equivalent to the impacted areas, and are based on ecological diagnostics and learnings accumulated on previously successful experiences.



*Natailson Mendes dos Santos, José Andrade Farias and Américo Penha, working on seedling production in the Forest Nursery.*

**Ecological Restoration Monitoring Program (PMRE)**

*Unprecedented ecological restoration monitoring system*

Based on 12 years of monitoring local fauna, flora, and soil, MRN developed the Ecological Restoration Monitoring Program (PMRE) to complement its Degraded Areas Recovery Plan (PRAD). The ecological restoration monitoring system is unprecedented in the sector and in the Amazon. Approved by Ibama, MRN implemented the model in 2024. The program goes beyond simple landscape restoration, evaluating ecological restoration comprehensively, focusing on full area reintegration into the original ecosystem.


Based on parameters adopted by the *Society for Ecological Restoration*, an internationally recognized scientific


reference, the evolution of ecological processes over time is compared to define whether a reforested area has been, in fact, recovered. It measures the ecological maturity of restored areas based on these scientific criteria recognized by environmental agencies.

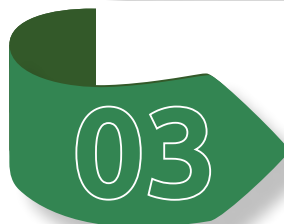
Monitoring is based on structural and functional indicators, which allow recovered vegetation ecological maturity levels to be measured. In all, six main attributes and 40 sub-attributes are evaluated, which reflect the restoration progress and effectiveness in multiple ecological dimensions.


Each area undergoing recovery is periodically evaluated based on these criteria. The area is considered ecologically restored when it reaches the minimum parameters defined for all monitored attributes.


THE SIX KEY ATTRIBUTES ARE:


- 

**Absence of threats** Checks for anthropogenic pressure, invasive species or risk factors.
- 

**Physical conditions** Evaluates soil, terrain stability and water availability.
- 

**Species composition** Observation for the presence of native species and the representative nature of the flora.
- 

**Structural diversity** Measures the complexity of plant layers (tree, shrub, herbaceous).
- 

**Ecosystem functionality** It evaluates ecological interactions, nutrient cycles and natural regeneration.
- 

**External exchanges** It considers connectivity with adjacent areas and gene flow.

## Lago Batata Ecological Restoration Journey

The ecological restoration project for Lago Batata, located in the municipality of Oriximiná, completed 35 years and became an environmental management model, recognized by the scientific community. Throughout this journey, the company was challenged to reverse the environmental damage caused by bauxite tailings deposits in the lake in the 1980s – a practice allowed by the legislation of the time.

Despite being a non-toxic material, composed of water and different clays, the fauna and flora were altered to a greater or lesser degree. Silting, death of igapó areas, changes in flooded areas and water turbidity were some environmental damages sustained.

Conducted by MRN in partnership with the Federal University of Rio de Janeiro (UFRJ) since 1989, the program is considered an unprecedented scientific achievement for restoring an Amazonian lake with a heterogeneous ecosystem and great vegetation diversity. The complexity of the “mosaic of ecosystems” in the lake was the subject of 99 national and international scientific publications. Based on the principles of sustainability, integrity and respect for people, the cumulative investment for this ecological restoration exceeds R\$ 31.5 million.

Through transparency, MRN seeks to clarify doubts, dispel myths and reinforce the learnings that demonstrate that it is possible to reconcile mining activity with sustainable development in the Amazon.



*Lake Batata, a successful environmental management model.*

- 120** hectares of vegetated igapó forest, equivalent to 111 football fields.
- 171** fish species recorded in the fishing effort carried out with help from community members
- + than 800** thousand igapó species seedlings planted
- 8.53** NTU (nephelometric turbidity units) was the average of the water turbidity indexes in the impacted area of Lago Batata in 2023 - well below the limit of 100 NTU defined by the National Environmental Council and close to the lake's natural conditions.

**“The decision to tell this story is in line with MRN's commitment to sustainable mining practices, which includes providing transparency regarding our social and environmental actions and, in the case of Lake Batata, reporting on what has been done to restore it, which today has become a benchmark due to its characteristics.”**

**Guido Germani**, MRN CEO.

## Flora

The Saracá-Taquera National Forest is a federal conservation unit with approximately 441,000 hectares. **To enable its operations, MRN has carried out, over its 45-year history, vegetation suppression totaling some 11,800 hectares** — equivalent to 2.7% of the total area of the FLONA. As part of its commitment to environmental conservation, **MRN has already promoted reforestation and ecological restoration monitoring on 7,701.32 hectares.** The difference between the cleared area and the reforested section — approximately 4,100 hectares — corresponds to zones designated for permanent operational structures, such as processing plants, tailings disposal systems, access roads, workshops, and other facilities essential to the operation's continuity and safety.



*Seedling planting process in mined areas.*

## Income generation in balance with the environment

MRN promotes socio-economic development combined with environmental conservation by integrating traditional knowledge with income generation opportunities. An example is the acquisition of seeds collected by community members in the region, who apply their knowledge about the forest in reforestation actions carried out by the company.

In addition to buying seeds, MRN invests in the training of these collectors, offering technical training to improve collection and ensure the quality of the material. Quilombola and riverine communities actively participate in all process stages — from collection to planting, training, hands-on monitoring and dissemination of results — strengthening their role and expanding their possibilities for income generation.

In 2024, 3.7 tons of community seeds were acquired, with emphasis on training 96 collectors from the Boa Nova and Saracá communities, located in the Sapucaá-Trombetas Agroextractivist Settlement. This initiative was developed in partnership with the national Redário network.

The path taken by the Seed Collectors Network exemplifies this transformation. What began as a one-off and MRN-

dependent project has evolved into an organized, autonomous network integrated into the national market. Through ongoing training and a strengthened entrepreneurial mindset, the collectors have come to recognize the value of their work and are now exploring new markets beyond the company itself. This raised the seed quality standard and significantly boosted the remuneration of those involved, consolidating the project as a

sustainable income generation model based on the forest.

In addition, MRN is studying new ways to strengthen the local economy. With the support of researchers, native timber and non-timber forest products are being identified that have the potential to increase family income and contribute even more robustly to reforestation projects in the region.



*Seed Collector Network Project.*

From the seeds acquired and seedlings removed, in 2024, 613,742 seedlings were produced at the company's Forest Nursery, of which 140,860 were individuals from endangered, protected, and/or vulnerable species based on Brazilian legislation. Another 22,840 seedlings were acquired from residents in the Alto Trombetas II Quilombola Territory communities. All employees involved in seedling production are from the region.

In 2024, 379.8 hectares were reforested on the Bela Cruz, Cipó, Monte Branco, Saracá, and Teófilo plateaus and along the Rodoferrovia highway, planting 576,532 seedlings from the total produced, belonging to 101 native tree species and distributed across 27 botanical families.



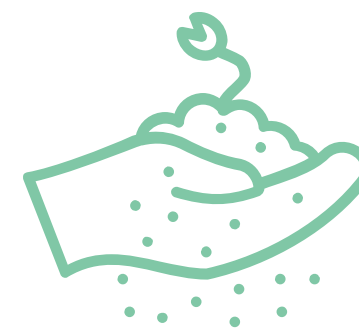
Seedling production of the Fava de Rosca species (*Enterolobium schomburgkii*).

COMMUNITY SEEDS

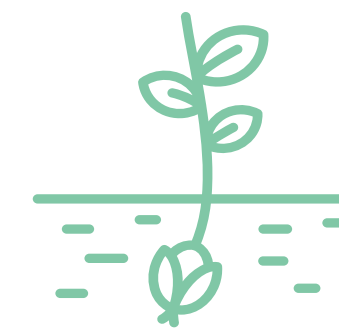


**3.7**  
tons  
acquired

REMOVAL



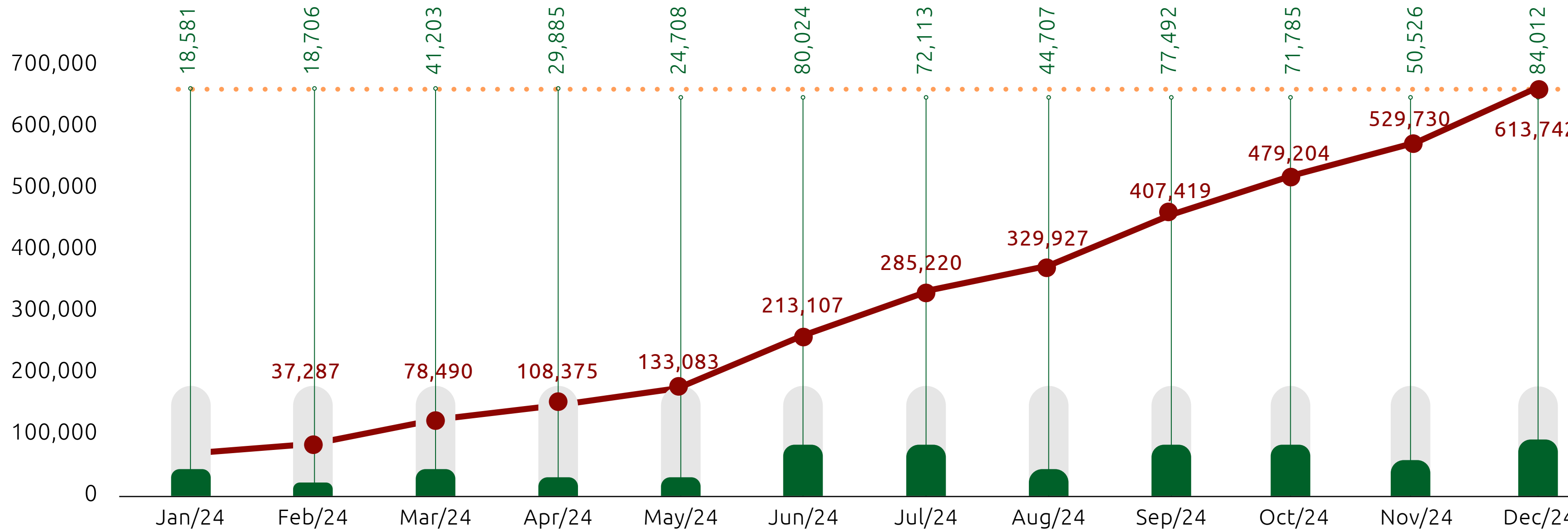
**15,290**  
seedlings<sup>1</sup> and seeds of  
8 native tree species collected in  
the removal activity preceding  
suppression



**25,268**  
seedlings<sup>1</sup> and plants  
removed in a mining  
area after suppression

<sup>1</sup>The term seedling is equivalent to the first stage of the plant, after the seed sprouts.

### SEEDLING PRODUCTION



Target: **611,900**

Result: **613,742**

**94%**  
were used for reforestation in the same year

- Accomplished
- Target
- Accumulated

In accordance with the Chico Mendes Institute Normative Instruction for Biodiversity Conservation (ICMbio) No. 11, December 11, 2014, MRN follows an area recovery methodology that plants only native species, not including exotic species in the FLONA. The presence of exotic species introduced in the 1980s for reforestation purposes in tailings reservoir areas is mitigated and controlled by the Exotic Species Elimination Program. As part of its commitment to the conservation of fauna and flora, the company also does not use pesticides or chemicals.



Training on epiphyte reintroduction.

## MRN's contribution to science

MRN's activities in the Saracá-Taquera National Forest have generated impacts that go beyond the productive sphere, contributing significantly to the advancement of scientific knowledge in the Amazon region.

**Since 2009, the company has maintained a systematic process of collecting and preserving botanical materials in its area of influence.**

This work uncovered 19 new epiphyte species, now officially registered, with orchids among the specimens identified

such as *Catasetum saracá-taquerense* and *Catasetum sacarátaquerense*, named after the forest where they were found.

The case of epiphytes is an emblematic regarding how mineral operations can be associated with the production of technical and scientific knowledge. By adopting a qualified approach in complying with the legal requirements for the collection and preservation of botanical materials, MRN has directly contributed to expanding the scientific base on Amazonian biodiversity.

Epiphytes are plants that live on trees and use them as support to survive, being able to grow from the trunk to the canopy. Among the best-known examples are species such as orchids and bromeliads.

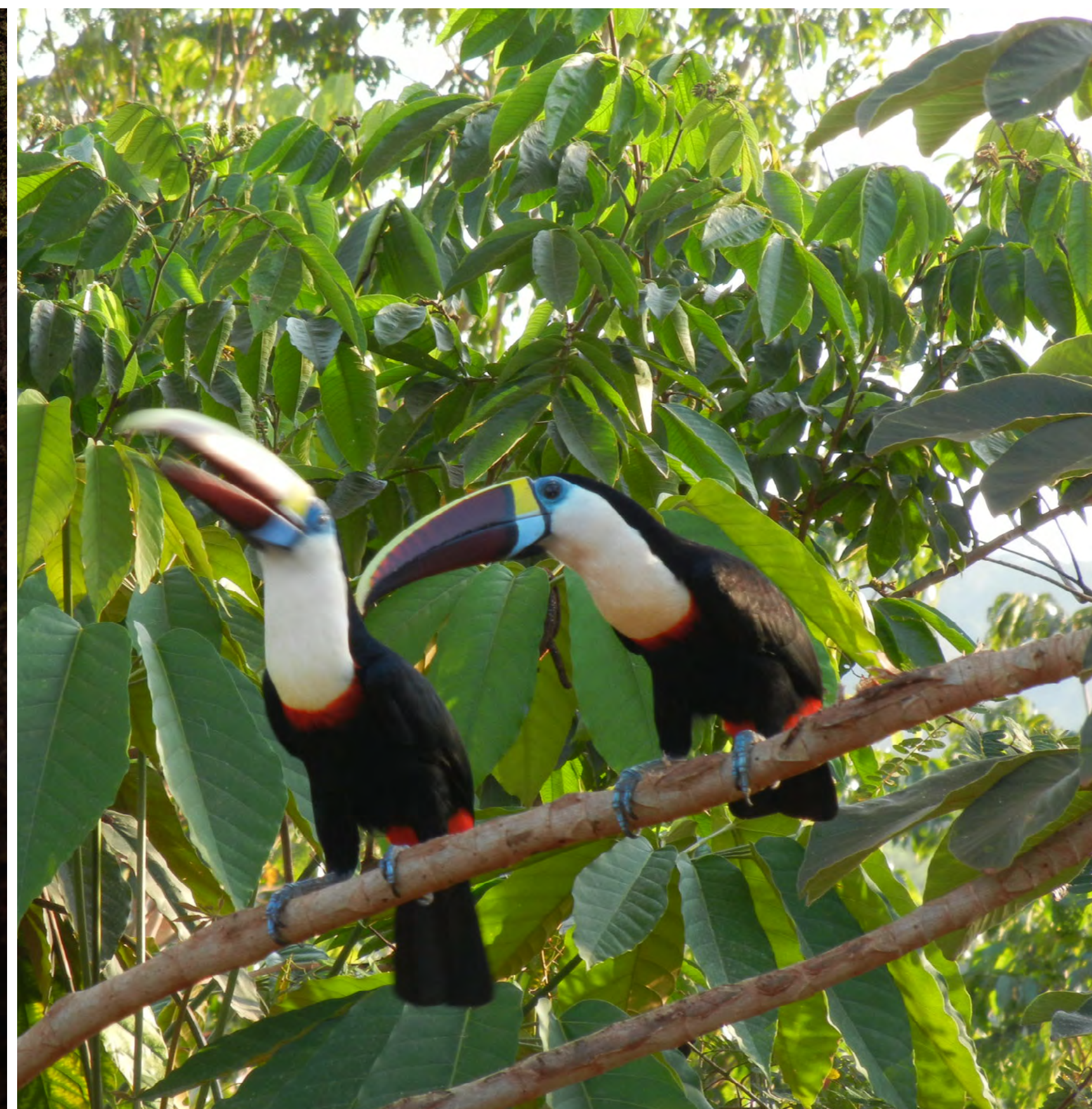
## Fauna

Native vegetation plays a fundamental role in the maintenance of fauna, offering shelter, food and ecological corridors for species displacements.

MRN, through its Wildlife Management Program (PMFS), adopts preventive and corrective measures aimed at protecting wildlife in intervention areas. Before starting any activity involving vegetation removal, specialized teams survey the areas to identify, rescue, or relocate animals to nearby forest fragments suitable for the species' survival.

When found, injured specimens or those with difficulties surviving are taken to the Wildlife Screening Center (CETAS), ensuring the necessary care until their rehabilitation. Animals in good condition are promptly returned to their natural environment.

These actions aim to reduce the effects of habitat alteration, ensuring shelter, food, and connectivity between remaining areas — elements essential to the conservation of local fauna.



*Avifauna in an ecological restoration area.*



## CETAS MRN is recognized by Ibama

CETAS, maintained by MRN, was highlighted on Ibama's official website as a successful example of an environmental mitigation measure. Implemented in 2012 as a condition of the Federal Environmental Licensing (LAF), the center has already rehabilitated more than 1,300 wild animals over 12 years of operation.

Located in **the Saracá-Taquera National Forest, MRN's CETAS receives, treats and rehabilitates rescued animals due to vegetation suppression, as well as operations against trafficking or voluntary deliveries.** About 66% of the treated animals could be returned to the wild; others were sent to research institutions or the Zoounama zoo, in Santarém (PA), depending on a technical evaluation.

The work of the team — composed of veterinarians, biologists and caregivers — includes diagnosis, clinical care, reintegration into wild habits and educational actions aimed at the community, such as training in fauna management. Cases such as the three-toed sloth (*Bradypus tridactylus*), successfully rescued and operated in June 2024, illustrate the importance of such specialized care to ensure the recovery of animals with minimal interference in their natural behavior.

Ibama's recognition reaffirms the relevance of MRN's CETAS as a concrete initiative to protect fauna.

*Release of rescued animals  
from mining fronts.*

— [GRI 101-2]



**6,756**  
rescued wildlife specimens



**99%**  
survival rate

In 2024, 6,756 wildlife specimens were rescued, with a survival rate of 99%. These animals were returned to FLONA, in areas without influence of suppression.

Another highlight is the Native Bee Rescue Program, which aims to protect hives found during plant suppression work. In the year, 318 hives were identified, with 166 transferred to a meliponary, where they are kept in a

controlled environment until they can be reintroduced into the forest after reforestation.

MRN also develops the Program for Monitoring the Impact of Roads on Fauna, which evaluates and seeks to mitigate the effects of roads and railways on wild animals. Continuous monitoring of roadkill occurrences makes it possible to identify critical points and plan corrective measures.

As a concrete action, the company has implemented and currently monitors 47 passages, with 16 being airways, 18 underground (lower) and 13 land passages (upper) under the conveyor belts, which enable the safe movement of animals and contribute to habitat connectivity. In the last four years, 3,596 individuals from 53 different species were registered using these structures, proving their effectiveness.

The program also includes a robust environmental awareness and education strategy aimed at employees and surrounding communities. Environmental fairs, educational blitz, Daily Safety Dialogues (DDS), discussion groups, distribution of booklets, as well as the installation of signs and sound devices along the highway are promoted.

Among the education initiatives, the Environmental Education Project – Wild Animals (PEA) stands out, which in 2024 addressed the themes "Minimization of trampling of terrestrial fauna" and "Risks with wild animals," reaching 777 and 2,719 people, respectively. The project reached about 80% of MRN's direct and indirect employees, as well as residents of the district of Porto Trombetas and communities on the Trombetas River and Lake Sapucuá banks.

**Complementing these actions, the Workers' Environmental Education Program (PEAT) trained 3,313 direct and outsourced employees in 2024, focusing on understanding the socio-environmental risks related to the company's activities in its area of influence.**

Finally, MRN maintains the Aquatic Biota Program, aimed at monitoring the impacts on fish and other aquatic organisms, with continuous monitoring and the possibility of corrections when necessary.

**Priority Ecosystem Services Management**

MRN develops a strategic management of ecosystem services considered a priority by local populations and organizations directly impacted by its operations. It aims to ensure the efficient resource use and promote the sustainable management of living natural resources.

# Climate Change

Climate change is one of today's major global challenges, with significant impacts on ecosystems, communities and economic sectors. In this context, MRN faces specific challenges in the management of greenhouse gas (GHG) emissions, since the extraction and processing of bauxite requires high energy consumption. In addition, ore transport, waste generation, land cover change and subsequent environmental recovery of mined areas also influence the sector's emissions.

Since 2015, as a good transparency practice, MRN monitors and discloses its GHG emissions, allowing the accurate identification of emitting sources and main trends over time. This is done by conducting annual emission inventories that follow the GHG Protocol methodology



and are disclosed in the public registry of the same institution ([to access the company's page click here](#)).

**In 2024, MRN was awarded the gold seal for the sixth consecutive year, due to its completeness and verification by an accredited third party.** The MRN inventory covers direct emissions (Scope 1), emissions from energy procurement (Scope 2) and indirect emissions associated with the value chain (Scope 3) and assists in control and mitigation implementation strategies.

## TOTAL EMISSIONS (tCO<sub>2</sub>e)

SCOPE	CATEGORY	2022	2023	2024
Scope 1	Agricultural activities	53.14	42.76	62.17
	Stationary combustion	170,350.34	177,829.87	189,587.84
	Mobile combustion	89,025.03	90,370.42	89,070.66
	Fugitive	2,981.10	3,630.05	2,670.34
	Land use change	314,671.37	179,897.55	170,349.15
	Solid waste and liquid effluents	6,112.97	3,575.81	3,621.53
	Partial total	583,193.95	455,346.46	455,361.69
Scope 2	Acquisition of electric power	0.40	0.46	0.22
	Partial total	0.40	0.46	0.22
Scope 3	Leased property (the company as lessor)	1,984.16	2,210.46	2,754.04
	Goods and services purchased	2,453.71	3,179.72	3,294.15
	Waste generated in operations	4,756.88	5,704.08	4,629.11
	Partial total	9,194.75	11,094.26	10,677.29
<b>TOTAL</b>		<b>592,389.10</b>	<b>466,441.18</b>	<b>466,039.21</b>

Note 1: All gases are included in the calculation (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>).

Note 2: The consolidation approach chosen by the Company is Operational Control.

Note 3: Scope 2 emissions refer to the energy consumption of the MRN Rooms located in Belém, which use electricity from the national grid.

Note 4: The conversion factors and methodology are those defined by the GHG Protocol.

Note 5: MRN has structural decarbonization initiatives until 2030, but which are not yet implemented. Therefore, the variations have no direct correlation with these initiatives.

### BIOGENIC EMISSIONS (tCO<sub>2</sub>e)

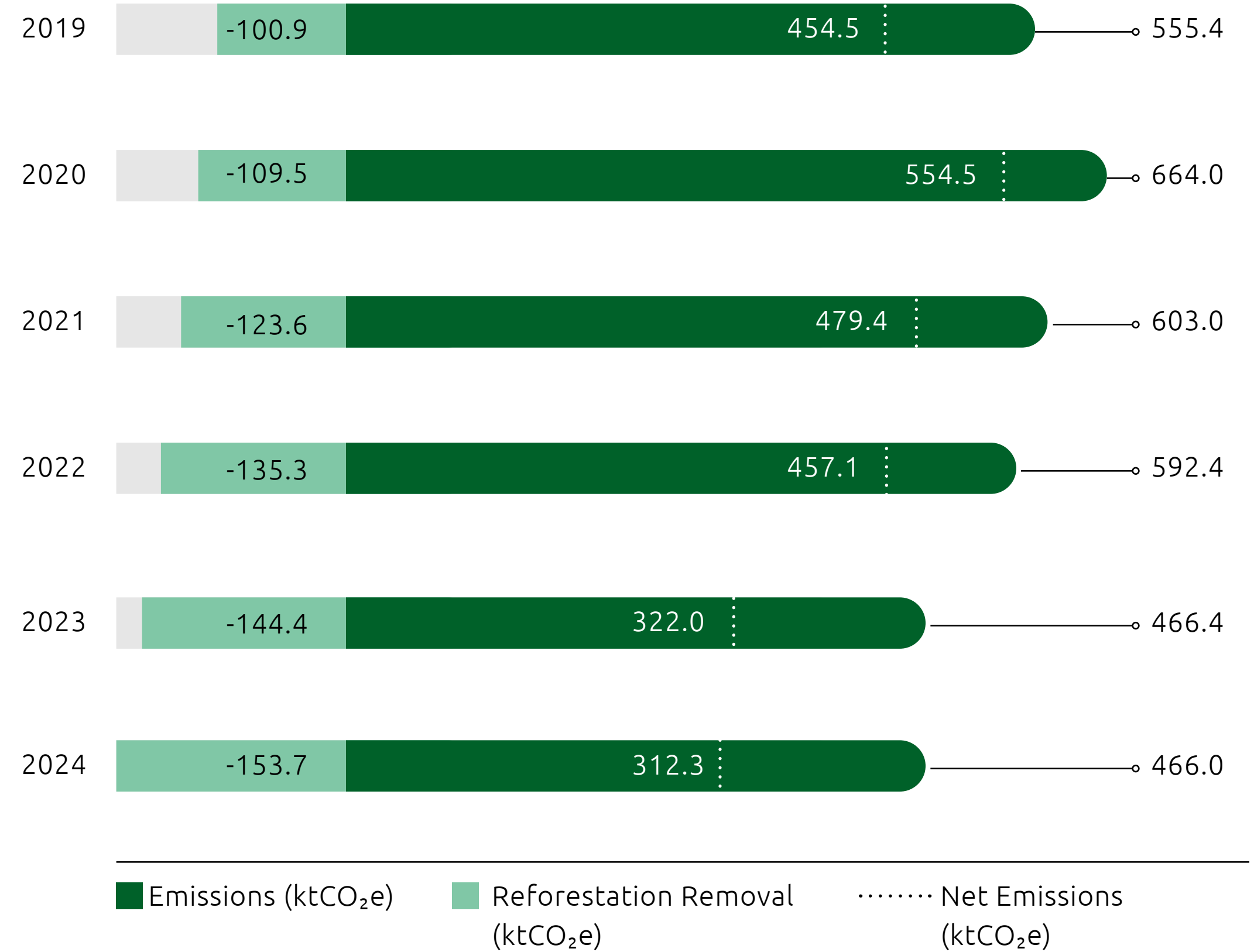
SCOPE	2022	2023	2024
Scope 1	8,788.84	12,741.75	16,856.45
Scope 2	-	-	-
Scope 3	755.99	1,607.04	1,606.82
<b>TOTAL</b>	<b>9,544.83</b>	<b>14,348.79</b>	<b>18,463.27</b>

Note 1: Biogenic emissions are presented separately from fossil emissions, in accordance with the GHG Protocol guidelines.

### EMISSIONS INTENSITY



### REMOVAL OF CO<sub>2</sub> (THOUSAND tCO<sub>2</sub>e)



Note 1: The data regarding removal of CO<sub>2</sub>e are equivalent to carbon capture resulting from reforestation processes carried out in mined areas at the end of their useful life.

## Climate Risks

MRN recognizes that climate change poses relevant risks to the continuity and efficiency of its operations. The main physical risks identified are related to the variability of the rainfall regime. In drought years, such as 2024, there was a reduction in rainwater availability – which is reused in the production process to wash bauxite. In these cases, it was necessary to use the capture of adjacent water resources, which generated additional operating costs. In addition, the reduction in the level of the Trombetas River directly affected the boarding process in the Port, restricting the draft of the ships and limiting the volume transported. This limitation made it necessary to use more vessels, raising logistics costs for both MRN and its customers.

Another significant climate risk is higher-than-expected rainfall, which can cause operational disruptions, increase possible accidents on slippery roads, accelerate erosion and landslides and raise the levels of tailings reservoirs, with the risk of overflowing or uncontrolled spills. To mitigate these risks, MRN adopts a series of operational controls, such as daily rainfall monitoring, topographic and bathymetric inspections, channel desilting and controlled spillways.

In a context of growing concern about the decarbonization of the industry, MRN adopts strategies aimed at mitigating greenhouse gas emissions and actively participates in sectoral initiatives. Its performance in the Mineral Sector Decarbonization Project, promoted by IBRAM, *Mining Hub* and the British government, stands out, contributing to the design and development of actions aimed at identifying collaborative emission reduction opportunities aimed at a low-carbon economy.

It was in this context that, in 2022, MRN established its first climate target. Aligned with the efforts to reduce and limit global warming set out in the Paris Agreement, MRN has committed to reducing its Scope 1 and 2 greenhouse gas (GHG) emissions by 25% by the end of 2027 (compared to 2024 data), through changes in its energy matrix. The company also maintains the ambition of achieving even lower net industrial emissions by the end of 2050.



The goal is to reduce Scope 1 and 2 Greenhouse Gas (GHG) emissions by 25% by 2027.

**The Transmission Line Project will reduce GHG emissions associated with energy production by 90%, about 25% of total emissions.**

## Air Quality

Aware that dust dispersion from heavy vehicle traffic, ore handling, and other operational activities can impact surrounding ecosystems, MRN has implemented a rigorous air quality monitoring and control program.

The company currently conducts systematic measurements at 15 monitoring stations strategically located around the operation. These stations analyze parameters such as Total Suspended Particles (TSP) and Inhalable Particles (PM10), allowing accurate monitoring of environmental air quality conditions. In 2024, 1,201 samples were taken, ensuring compliance with the limits established by current environmental legislation.

To reduce dust dispersion, the company adopts measures such as:

- Road and operational area wetting: Use of water trucks to apply water and dust suppressants.
- Preventive road maintenance: Regularization and compaction of internal roads to minimize particle suspension.
- Gas opacity monitoring: Regular inspections of vehicles and equipment to control atmospheric emissions.

In the coming years, MRN will continue investing in technology and best practices to ensure effective particulate emission monitoring and to minimize impacts on air quality, reaffirming its commitment to environmental preservation and the well-being of nearby communities.



*Kamila Souza - air quality monitoring*

## Energy

Due to the high energy demand of mining activities, the energy matrix plays a key role in the sustainability of operations and is directly linked to each company's climate change management. In the case of MRN, this challenge is even more complex due to its location in a remote area, within a national forest and outside the National Interconnected System (SIN) coverage. The industrial complex's entire energy demand — including mine, port, support infrastructure and residential area at Vila de Porto Trombetas — is supplied by its own Power Generation Plant, which uses fuel oil products.



Investment in strategies to reduce dependence on fossil fuels – Transmission Line Project (PLT) – in power generation, in addition to minimizing the associated environmental impacts, increases the reliability and energy flexibility of MRN's operation.

Additionally, MRN adopts measures to improve energy efficiency across its operations, such as modernizing equipment, implementing more efficient technologies and raising employee awareness about rational energy use in company facilities and housing. By changing its energy matrix and continuously striving for efficiency, MRN moves towards a lower climate impact operation and in line with energy efficiency best practices.



*Daniel Miranda de Almeida and Marcio Pantoja Alves.*

## TOTAL ENERGY CONSUMPTION WITHIN MRN (GJ)

FUEL FROM NON-RENEWABLE SOURCES	2022	2023	2024
OCA1 fuel (BPF)	497,415	494,847	541,648
Diesel Fuel	958,779	1,125,417	1,060,481
Electrical Energy	1,714,936	1,835,231	1,977,484
<b>TOTAL</b>	<b>3,171,129</b>	<b>3,455,495</b>	<b>3,579,613</b>

Note 1: Conversion factors from the Reference Bank of the GHG Protocol Program and spreadsheet provided by IBRAM's GT11 were used.

## ENERGY INTENSITY

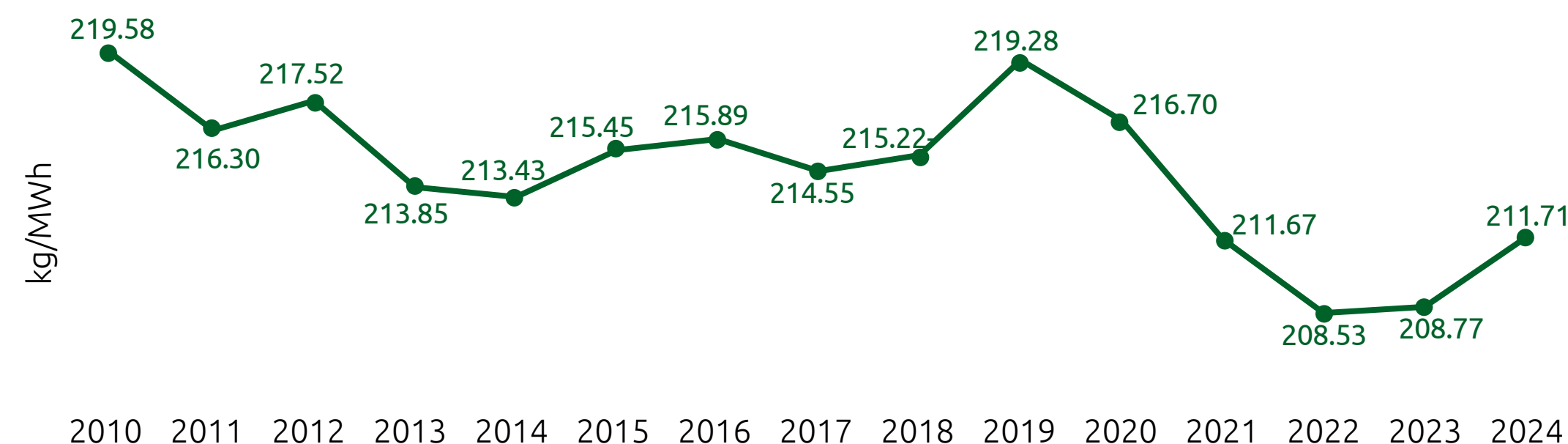


Note 1: The energy intensity was calculated based on the production of bauxite each year and the total energy consumption, which includes, in addition to the production processes, the maintenance of the infrastructure at Vila de Porto Trombetas.

[GRI 302-1] [GRI 302-3]

Specifically in relation to the efficiency associated with the consumption of fuel oils for electricity generation, MRN adopted measures such as controls – indicators and daily verification indexes – to correct deviations that involve the entire production chain and replace motors for more efficient models.

## SPECIFIC CONSUMPTION [kg/MWh]



Note 1: 1 MWh equals 3.6 GJ

Sharing this objective, MRN also engages across its value chain by participating in IBRAM's Energy Working Group (GT11). This group was created under the "Carta Compromisso," a commitment to Brazil's ESG Mining Agenda, contributing to collective efforts on energy efficiency, renewable sources, and climate-change mitigation in mining operations. The GT11 focuses on

reducing energy input consumption by improving equipment and production process efficiency. It also aims to increase the share of renewable energy in the mining sector's energy matrix and promote forums for sharing experiences and best practices. MRN's participation in this group enables sharing studies and network strategies that enhance sectoral transformation.

## Water Resources and Effluents

Even operating in one of the regions with the highest water availability on the planet, MRN, as well as the local population and other actors in the territory, has faced challenges arising from climate variations. Therefore, it is essential to ensure the efficient use of this resource and minimize impacts on local ecosystems, considering water as a shared resource and essential for environmental sustainability and surrounding communities.

**MRN's operations are inserted in ten hydrographic basins within the Amazon Basin and have two operational areas with their own water abstraction management.** In the mining region, water collection is carried out at eleven distinct points, which include surface

sources, such as creeks and local drains, and underground sources, through wells. Consumption is intended for both industrial purposes — such as mineral washing, pump sealing and road wetting — and human consumption, which is directed to a Water Treatment Plant (WTP) and, later, to the infrastructure to support labor. In the Porto region, the catchment is in a single point and exclusively superficial, carried out directly from the Trombetas River. The water collected for industrial consumption is used in the operation of the boiler, for drying and shipping, and for human consumption. It also passes through the company's WTP to subsequently be directed to supply Vila de Porto Trombetas and areas supporting the workers.



*Region of the Boa Nova community, on Sapucua Lake.*

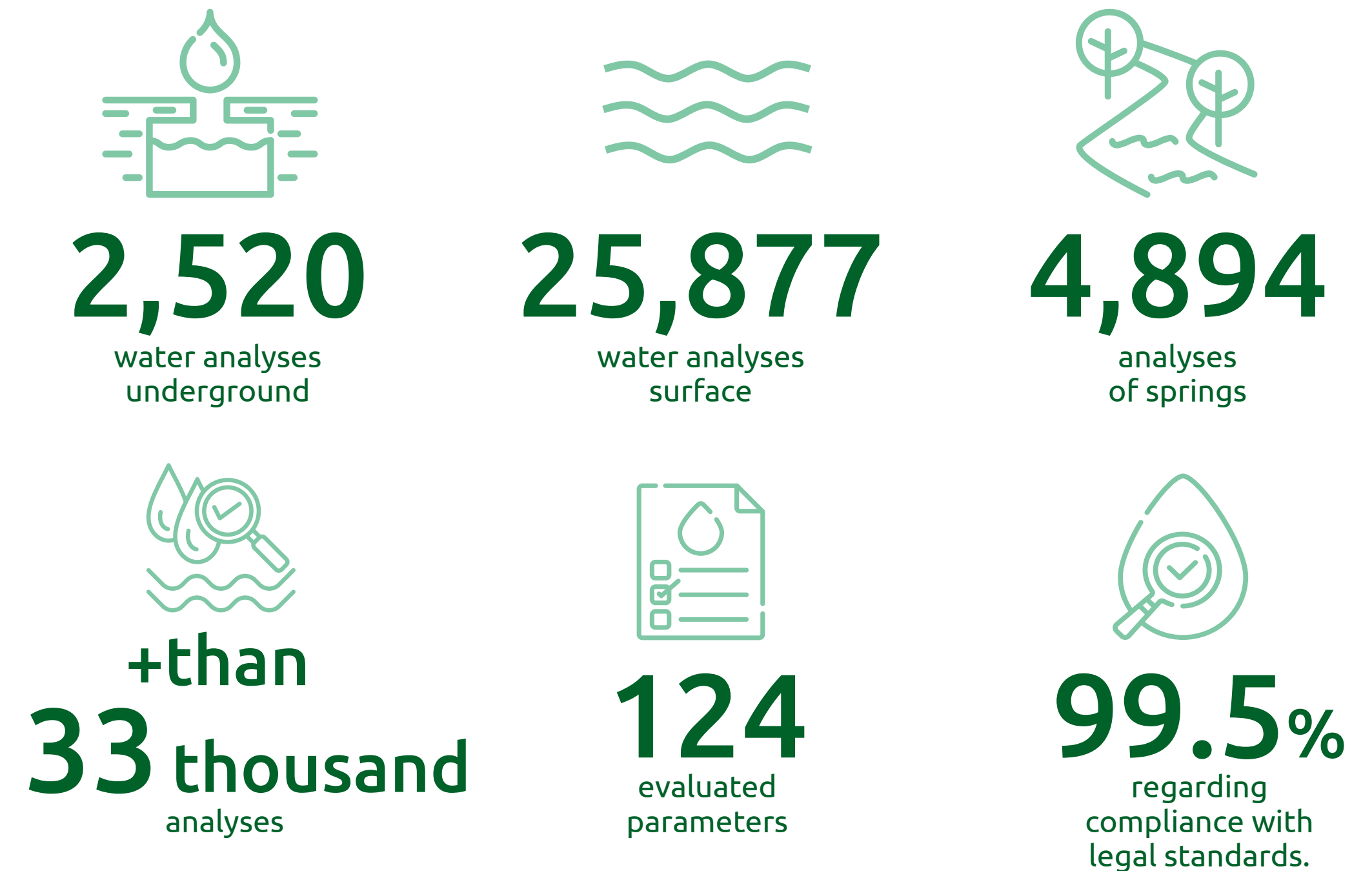
During the environmental licensing process, an Environmental Impact Study and its respective Environmental Impact Report (EIA/Rima) were conducted, which identified potential interferences in the region's water bodies. Based on these studies, mitigating environmental programs were established. One such was the Water Control and Monitoring Program (PCMH), the main tool for continuous monitoring of water resources influenced by the company's activities, whose main data are reported annually in the MRN Annual Environmental Performance Report (RADA).

The PMHC scope includes the systematic monitoring of water quality at various points of surface and underground water bodies in the hydrographic basins around the potentially impacted operation. The quality monitoring campaigns

are carried out monthly and follow standardized guidelines such as NBRs and *Standard Methods*, in addition to the parameters established by CONAMA Resolutions 357/2005 and 430/2011. Altogether, there are 199 sampling points distributed among streams, lakes, the Trombetas River, springs and underground wells located in MRN's areas of influence.

The approach also includes the identification of trends, seasonal variations and possible anomalies that may indicate interference. The data are technically analyzed and reported to the regulatory agencies, through the RADA, as provided for in the environmental licensing, allowing operational adjustments and the adoption of corrective and preventive measures whenever necessary. In 2024, the average rate of compliance with legal standards was 99.5%.

## WATER QUALITY MONITORING



Groundwater analyzes showed 100% compliance, while surface water and springs registered 95.51% and 95.63%, respectively. About 75% of non-conformities are associated with the

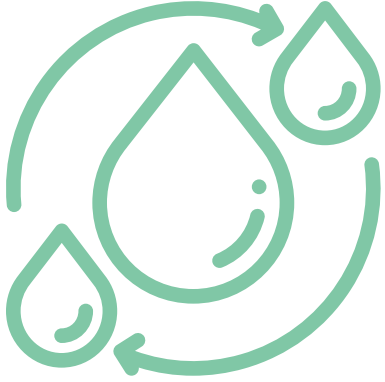
geological characteristics of the region. The others are commonly related to the natural decomposition of organic matter, considering the high content of this compound in the area.

In addition, the volume of water collected is strictly monitored and respects the limits established in the grants. Surface catchments are authorized by the National Water and Basic Sanitation Agency (Ana), while underground catchments are regulated by the Pará Environment and Sustainability Secretariat (SEMAS).

MRN takes a systematic approach to managing water-related impacts, with a focus on scaling up water recirculation and reducing reliance on freshwater abstractions. Among the practices adopted, the reuse of recovered rainwater and tailings dewatering water stands out, which are directed to the water supply of the processing plant. In 2024, about 62 million m<sup>3</sup> of process water was reused.

MRN's efforts to increase water use efficiency led the company to set a 2022 goal of maintaining the average consumption of new water abstracted at 14 million m<sup>3</sup> per year. **This target represents a reduction of approximately 30% compared to the historical average of 19.9 million m<sup>3</sup>, recorded between 2016 and 2018.** The strategy to achieve this goal included the implementation of operational improvements and the modernization of raw water collection and reuse systems, which began in 2019.

However, since 2023, the company has faced significant changes in the rainfall regime, which directly impacts the availability of recovered water and, consequently, increases the demand for new water abstraction. In addition, the change in the particle size of the extracted



**84%** of recirculated water  
contributing to water efficiency



*Gildo das Neves Silva, technical manager, Water Treatment Plant (WTP).*

ore, resulting from the gradual depletion of current deposits, has required a greater volume of water to ensure effective washing and the quality of the final product. This increase in water demand occurs regardless of production volume, representing an additional challenge to the process. **Thus, in 2024, it was necessary to review and adjust the target to a scenario that considers such climatic variations, increasing to 16.0 million m<sup>3</sup> per year for new water abstracted. This value continues to represent a relevant challenge considering the total captured in 2024.**

Given this scenario, MRN remains committed to water efficiency, seeking to continuously increase its reuse rate. The company also develops multidisciplinary studies and action plans aimed at raising

the participation of process water — such as accumulated rainwater and water recovered from tailings — especially in periods during greater natural water availability. These initiatives are in the study and development phase, and their effects are expected over the medium- and long-term.

It is worth noting that, in 1Q25 alone, the volume of rainfall exceeded the sum of 2023 and 2024, in the same period, which reduces the need for new water abstraction and brings MRN closer to its commitment to maintain new water abstraction by up to 16.0 million m<sup>3</sup> per year. However, an intense rainfall regime may eventually present new operational challenges for MRN, different from those faced during previous drought-affected cycles.

### TOTAL FRESH WATER CONSUMPTION (ML)

SOURCE	2022		2023		2024	
	Mines	Porto	Mines	Porto	Mines	Porto
<b>SURFACE WATERS</b>						
Human Consumption	263.60	1,115.31	267,70	1,191.88	291.08	1,194.16
Industrial Consumption	6,577.88	2,115.69	12,695.52	3,138.09	16,835.57	2,511.10
<b>UNDERGROUND WATER</b>						
Human Consumption	3.93	NA	4.60	NA	9.89	NA
Industrial Consumption	125.35	NA	167.94	NA	197.90	NA
<b>TOTAL</b>	<b>6,971.76</b>	<b>3,231.00</b>	<b>13,136.76</b>	<b>4,329.97</b>	<b>17,334.44</b>	<b>3,705.26</b>

Note 1: MRN has no seawater abstraction or water production, nor does it consume this resource from third parties.

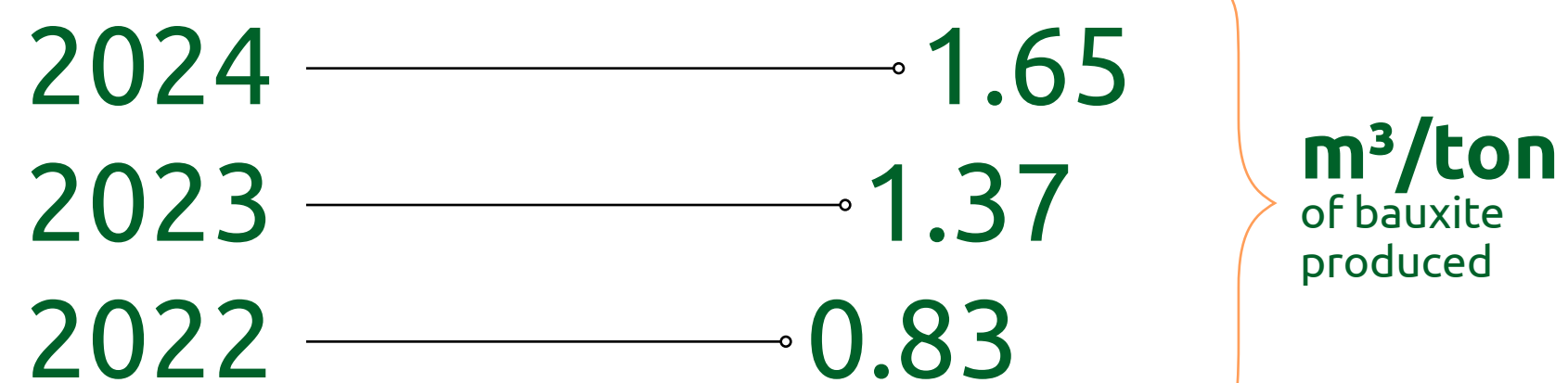
Note 2: There is no underground catchment in the Port.

Note 3: The methodology used to report surface and groundwater collection volumes relies on daily monitoring, including water meter and flow meter readings, with clear separation between volumes used for human and industrial consumption.

Note 4: Despite the reduction in rainfall in 2024, the comparison of the volume captured in relation to water availability at the points of capture indicates that the area cannot be characterized as water stress.

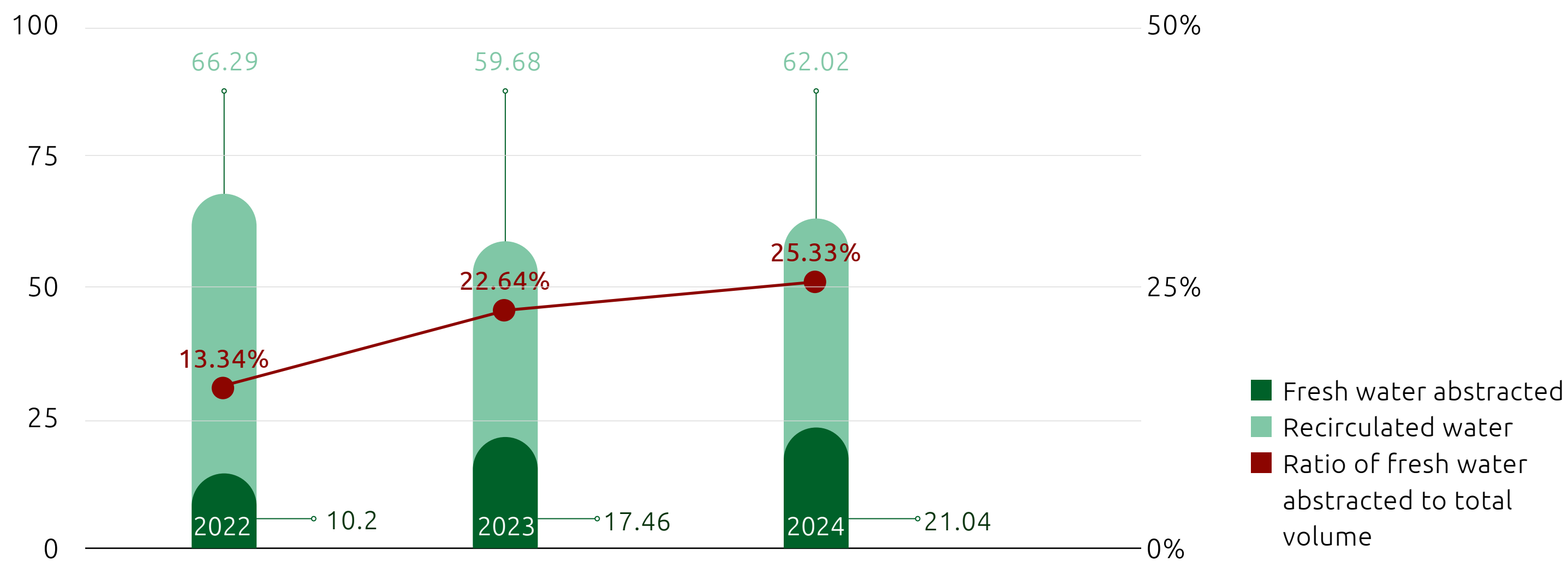
Note 5: The monitoring of the quality of water abstracted is only carried out at groundwater collection points, as required by the grant stipulations. For surface water collection points, there is no requirement to monitor raw water quality. The results obtained at the underground points indicate that the water can be classified as fresh, as it has dissolved solids concentrations below 1,000 mg/L. In 2024, monitoring demonstrated concentrations below 180 mg/L.

WATER INTENSITY



Note 1: The water intensity was calculated based on the bauxite production of each year (denominator) and the total consumption for new water captured (numerator), which includes, in addition to the production processes, the infrastructure maintenance at Villa de Porto Trombetas. The increase is justified by the periods of drought that have hit the Amazon region in recent years.

RATIO IN NEW WATER CONSUMPTION (THOUSAND ML)



Note 1: The total volume of new water captured refers to MRN's entire operations, not only to what was consumed by the processing plant.

**In order to ensure transparency and engage stakeholders, MRN shares quarterly water consumption data — both new and recovered — with technical groups of the parent companies.** The company also develops Participatory Monitoring actions, aimed at the monthly dissemination of stream quality data to the surrounding communities. Moura, Boa Vista, Saracá, Boa Nova, São Tomé and São Francisco. Annually, the leaders receive the collection schedule, followed by a letter, sent 30 days in advance, confirming the date of each activity. On the day of collection, a local community member leads the vessel and accompanies MRN technicians in collecting water samples, who, on the same occasion, deliver to the community leader the report with the results of the previous collection. This report is presented in a poster with the map of the river basin, indicating the monitoring points, distances, parameters analyzed (aluminum, dissolved iron, turbidity and sedimentable solids) and comparisons with the historical ranges over 10 years.

## Climate Change and the Water Regime

Climate change has altered weather patterns and intensified extreme events such as droughts and floods. In the Amazon region, these changes show up most clearly in rainfall variability, disrupting the regularity of precipitation and directly affecting river dynamics — key elements for ecological balance, local community livelihoods, and MRN's logistical and operational infrastructure.

In 2024, the lowest rainfall in the historical series recorded by MRN since 1989 accentuated the challenges related to water management. Rainfall scarcity directly impacted water availability for the bauxite processing process, resulting in a reduction in the volume of water recovered and requiring greater abstraction of water resources. In addition, the reduction in water availability also compromised the control of suspended particulates generated in the

mine areas, especially during the transit of trucks and equipment. Even so, no damage to air quality was recorded.

Although low rainfall rates have brought specific benefits to industrial operations — such as better handling of the ore benefited and greater efficiency in the drying and stacking processes of products — the negative impacts were more significant. In 2024, the Trombetas River registered the lowest level in its historical series, which directly compromised the flow of production. During critical periods, limited draft conditions required ships to be only partially loaded—sometimes with as little as 50% capacity—leading to higher logistics costs and reduced bauxite competitiveness in the market.

In addition to emergency actions, enhanced water management and increased efficiency

in water reuse systems, MRN has developed and implemented structural projects to boost operational resilience in the face of adverse climate scenarios. To mitigate these effects and maintain the environmental performance of operations, the company annually implements the Preparation Plan for the Dry Period (P3S), which guides the preventive action of infrastructure teams. This plan is structured based on three pillars — resources, procedures and planning — and has been essential to anticipate and respond effectively to the most intense drought periods.

The company also maintains constant dialogue with federal agencies, such as DNIT - *Departamento Nacional de Infraestrutura de Transportes* – and the Brazilian Navy, to enable interventions, such as the dredging of the Trombetas River, ensuring navigability even in severe drought periods. A feasibility

study for dredging critical points is in progress, in partnership with DNIT, with an initial R\$ 4 million contribution from MRN. This solution will contribute significantly to reducing operating costs and boosting the company's logistical resilience.

The historical drought recorded in the region also required social actions. **In order to support local communities that faced difficulties in accessing water, in 2024 MRN allocated 6,000 liters of drinking water to assist in supplying communities in the Boa Vista territory, more precisely in Vila do Patauá and Sítio Conceição.** It is important to highlight that the water abstraction carried out by the company was not directly related to the water unavailability faced by the communities, since the volumes abstracted are continuously monitored and respect the limits established by the grants.



Water Treatment Plant (WTP)

In addition, the responsible management of water resources is intrinsically linked to the effective control of effluents generated by the company's operations. Aware of this responsibility, MRN implements a rigorous Liquid Effluent Management and Monitoring Program (PGMEL), which encompasses the monthly collection and systematic analysis of all industrial and sanitary effluents from its activities. In addition, it conducts regular inspections on its treatment systems, which

include sanitary sewage plants, water and oil separator (SAO) boxes and sediment retention systems, to ensure that the treatment is effective. Specifically in the disposal of effluents commonly made in the dam - controlled spillage - flow and quality data of the effluent – turbidity – are controlled in conjunction with monitoring the receiving water body. However, due to the low rainfall in the region in 2024, no disposal was conducted at the dam.

The sanitary effluents from the Sewage Treatment Plant (ETE), which serves the village of Porto Trombetas, are discarded into the Trombetas River after treatment. The other effluents, after treatments in the Compact Sewage Treatment Plants (ETECS) - sanitary effluents in the mines - or water and oil separators (SAO) - industrial waste - are discarded into the soil. Treatment efficiency control is measured by the quality of the treated effluent,

and the analyses follow the procedures required by the *Standard Methods for the Examination of Water and Wastewater*. The objective is to ensure that effluents follow the parameter limits established in CONAMA Resolution 430/2011.

For cases where there are possible non-conformities in the effluent quality analyses, these are registered internally through an RNCA - Environmental



*Elinelma Gonçalves Barbosa.*

Non-Compliance Report. In addition, the necessary guidance is provided to responsible teams so they can carry out preventive or mitigation measures. In addition, in 2024, after an audit by one of the company's shareholders, an Emergency Response Plan (PAE) was prepared to determine which mitigating actions should be taken specifically for any non-conformities related to uncontrolled spills from the peripheral lakes of the reservoirs. All non-conformities are reported through the RADA.

In 2024, 854.8 megaliters were discarded, about 2.3 megaliters per day of sanitary effluents from the WWTP. There is no specific volume control treated in the ETECs or through the SAO boxes of industrial effluents. In these structures, monitoring is specifically aimed at analyzing effluent quality parameters.

**In December 2024, the WWTP underwent significant modernization, with the replacement of ceramic diffusers with membranes and the replacement of PVC branches with stainless steel diffusers. This improvement has provided an increase in the efficiency of the aeration system, ensuring more effective oxygenation and, consequently, raising treated effluent quality.**

With more than 33,000 analytical results, the company ensures that its operations do not compromise the quality of the region's water bodies, ensuring compliance with current environmental standards and contributing to the preservation of local ecosystems. In addition, the data collected provide valuable insights into the water conditions of the Saracá-Taquera National Forest and attest to the efficiency of the treatment systems adopted. Since

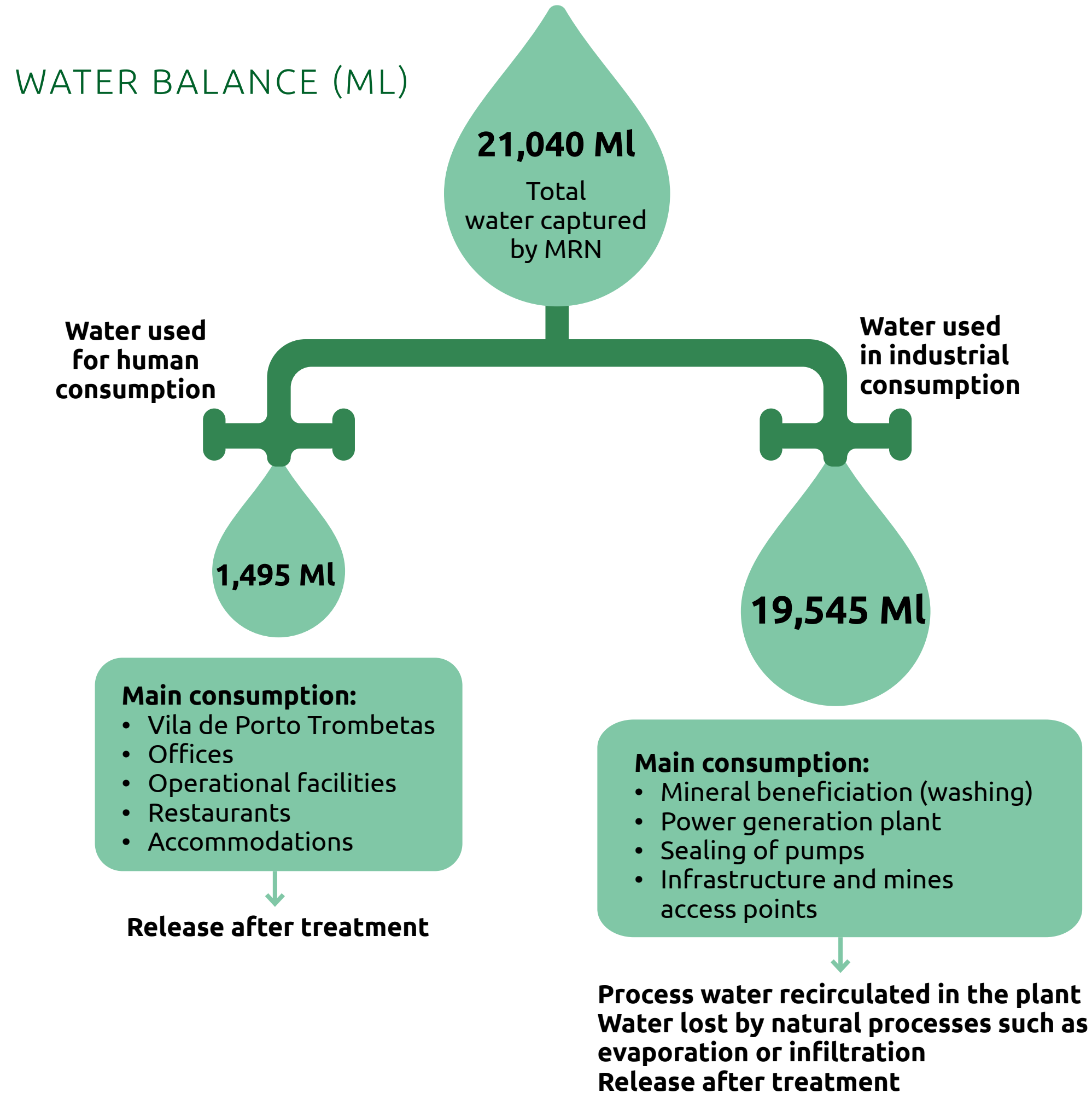
2022, the company has modernized its water management by structuring an optimized database and implementing interactive dashboards, improving data visualization and real-time monitoring, and strengthening decision-making and environmental control.

**In 2024,  
discards  
totaled**

**854.8**

**megaliters  
of sanitary  
effluents**

To complement the information presented, the flowchart with the consolidated water balance below shows the volumes captured by use and their main destinations.



## Spillages

MRN monitors any leaks or spills that have the potential to impact the local ecosystem in any way. Such events may occur, for example, as a result of operational failures that result in the unintentional release of products such as GMP oil, diesel, gasoline, lubricating oil and greases. Therefore, MRN has inspection customs, which take place regularly, as well as preventive maintenance of equipment and vehicles, operational training and emergency simulations. Operational control also includes the use of alert devices and measuring instruments, along with infrastructures designed to minimize or mitigate leaks and spills, such as: containment berms for temporary

storage; impermeable flooring; valve lock systems; containment channels; and environmental emergency kits.

In cases of environmental incidents, MRN has a procedure that determines the steps for internal investigation into the causes of such events. Every case is analyzed by the company and those with considerable damage to the environment are reported to the competent environmental agencies, as set forth in the legislation. Complementing this, MRN is developing a disaster-response and business continuity plan that will introduce financial safeguards against significant spill risks.

**Throughout the year, no spills with the potential to cause significant damage to the environment were recorded.**

## Waste

Waste management is part of the environmental management program conducted annually by MRN and follows the guidelines of the National Solid Waste Policy (PNRS). A particularity of the company, due to its geographical location, is that, by maintaining its own village for its employees — Porto Trombetas district — MRN also assumes responsibility for the urban waste management associated with local infrastructure. This attribution is in addition to the management of industrial waste, also regulated by the PNRS, and

mineral waste, which follow specific rules and legislation applicable to the mining sector.

MRN understands that the adoption of efficient practices for the treatment and disposal of the most varied waste is fundamental to minimize environmental impacts and promote the circular economy within the company's activities. By enabling recycling, the company strengthens this chain and still generates economic value through the commercialization of reusable materials.

**MRN understands that adopting efficient practices for the treatment and disposal of the most varied types of waste is fundamental to minimize environmental impacts and promote the circular economy within the company's activities.**

### Urban Waste

Urban waste generated in Porto Trombetas is, for the most part, managed internally by MRN. Exceptions include specific materials, such as recyclables, healthcare waste, or contaminated waste, which are sent to specialized third parties for final disposal. The company operates a Waste Treatment Center (CTR) that plays a key role in this management. In 2024, CTR received 8,145 tons of waste from the village's urban infrastructure. Of these, 345 were recycled at the plant itself and 405 tons of organic waste were sent to the composting system. The organic compound resulting from this process is used in vegetable gardens and green areas of Porto Trombetas and neighboring communities,

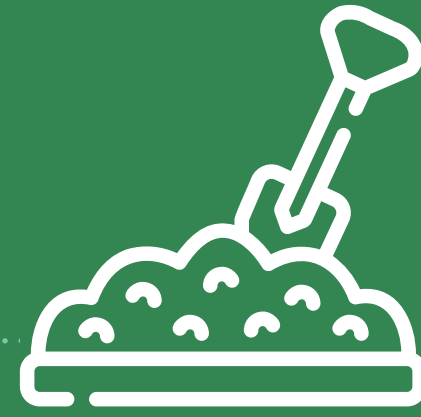
strengthening the assumptions for a circular economy.

In addition, the company ensured the safe incineration of seven tons of health service waste (Class I) from its hospital structure, the Hospital de Porto Trombetas (HPTR), ensuring compliance with safety standards and prevention of health risks. The hospital also receives and concentrates the waste generated in the mine's outpatient clinics, at the Vila fair and by residents who use medication. In addition, the company demonstrates its commitment to the efficient management of construction waste, reusing 524 tons and temporarily storing another 5,621 tons for future reuse.

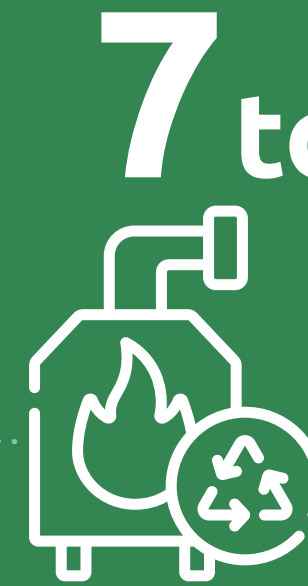


**8,145 tons**  
of urban waste

**345 tons**  
for recycling



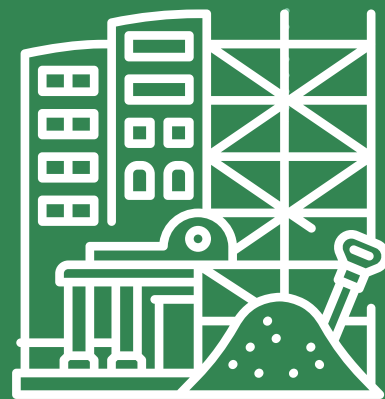
**405 tons**  
for composting



**7 tons**  
of healthcare  
waste for  
incineration



**524 tons**  
of construction  
waste reused



**5,621 tons**  
of construction  
waste temporarily  
stored for later  
reuse

**1,243 tons**  
of non-recyclable  
waste to landfill



**Of the total municipal waste generated, 16.5 tons are considered hazardous waste (Class I), about 0.2% of the total. These wastes have different treatment plans, as set forth in legislation. The useful life at the Porto Trombetas landfill increased from 18 to 24 months with the actions involving environmental education, expansion of composting and recycling, improvements in CTR's internal operations and optimizing waste compaction process.**

MRN appreciates that efficient management also involves the environmental awareness of the actors involved in the generation sources. Therefore, throughout 2024, the company carried out 1,411 environmental education actions aimed at employees and Porto Trombetas district residents. Of this, 915 were related to urban waste management and 496 focused on industrial waste, which reached 1,600 people, reinforcing the importance of proper waste disposal, preserving its recycling or composting potential, when applicable. Measures include Daily Safety Dialogues (DDS) in operational areas and retail outlets, guided tours to the CTR, educational presentations in schools, and implementation of the "Recycling Blitz" program, involving an individualized sample collection from households aimed at assessing waste segregation quality.

## Industrial and Mineral Waste

Industrial and mineral waste are by-products generated throughout the bauxite extraction and processing process, as well as the company's various operational activities. Proper management of this waste is essential to mitigate environmental impacts, prevent soil and water contamination, and ensure geotechnical stability in dedicated disposal areas for mineral waste.

The company adopts advanced technologies and good practices for the reuse, treatment and safe storage of these materials. Continuous monitoring of tailings structures and industrial processes allows us to reduce impacts and ensure compliance with environmental standards. Among implemented initiatives are recycling industrial inputs, reusing materials wherever possible and

seeking more sustainable ways to manage mineral waste.

With regard to industrial waste management, MRN operates a Disposed Industrial Waste Center (CRID), where the receipt, weighing, verification and temporary storage processes are carried out. CRID plays a key role in the environmental management approach, ensuring the proper and responsible treatment of industrial waste produced in operations. **In 2024, the plant received 3,688 tons of industrial waste, and 89% was disposed of within the same year. Of this total, 99.7% was destined for reuse, recycling and/or treated through reprocessing and 0.3% sent to incineration or landfill.** Of the total generated, 1,345 tons were classified as Class I, hazardous waste.



of the total industrial waste generated was destined for reuse, recycling and/or treated through reprocessing. An even higher number than in 2023, which was 98.6%.



### New uses

Fiber tubes, wood, conveyor belts, scrap metal, plastics and rubbers have already been reused in the structure of spaces such as living areas, bike racks, input storage and the creation of seedbeds for germinating seeds in our Forest Nursery.

In relation to mineral waste, or tailings, from MRN's mining activities, they are classified as non-inert and non-hazardous. The bauxite processing waste is a mixture of soil and water left over

from the ore washing process, made with water only, without the addition of chemicals. The form of management of this waste is described in the following section, "Reservoirs and Dams."

# Reservoirs and Dams

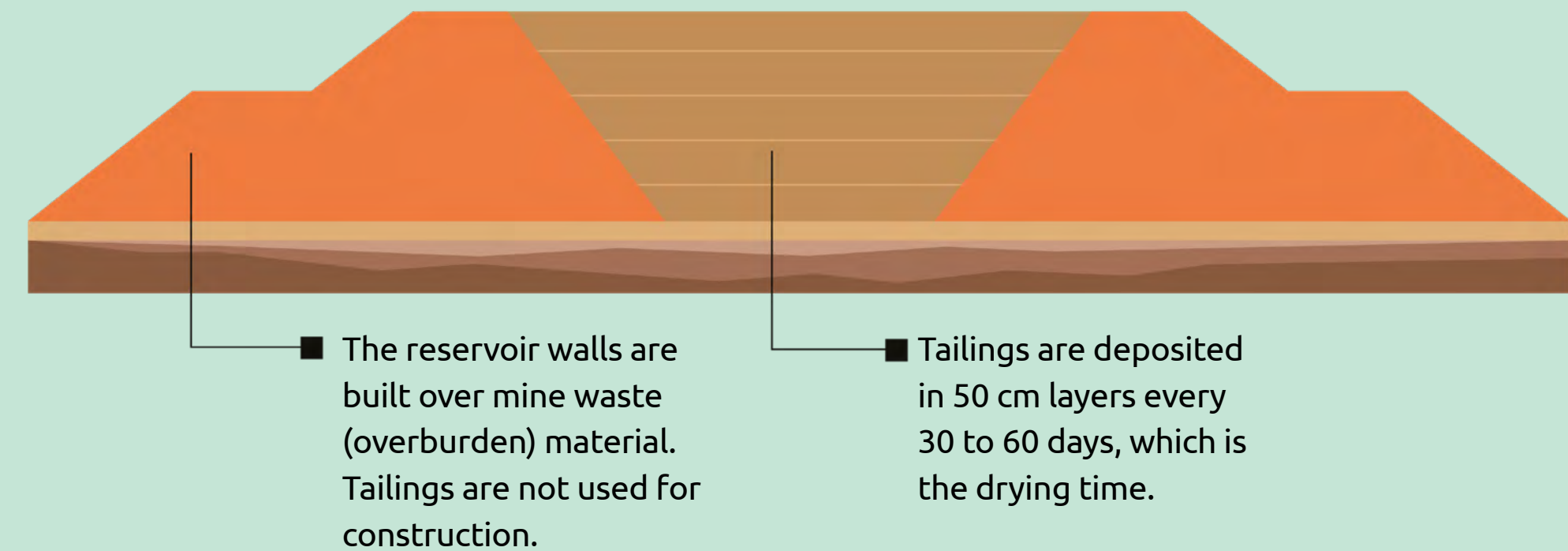
MRN continuously invests in new technologies to ensure an increasingly safe and responsible management of its Tailings Management System. The company currently operates 29 structures—27 serving as tailings reservoirs on the Saracá plateau, 37 km from Porto Trombetas village, and two water dams at the port (A1 and Água Fria), used solely to collect and purify rainwater from the shipping yard.

The management of risks related to reservoirs and dams includes the assessment and definition of the Associated Potential Damage (DPA) for each structure. Established by

ANM Resolution No. 95/2022, the DPA is defined by combined criteria that consider potential impacts from a reservoir or dam malfunction, regardless of whether they might occur. This classification considers potential human fatalities along with social, economic and environmental impacts. It is based on factors such as reservoir volume, downstream population presence, geographic location and structural condition. According to these criteria, DPA can be classified as low, medium or high. In the MRN, currently, 27 structures have DPA classified as medium and two structures are DPA classified as high.

## How are reservoirs built?

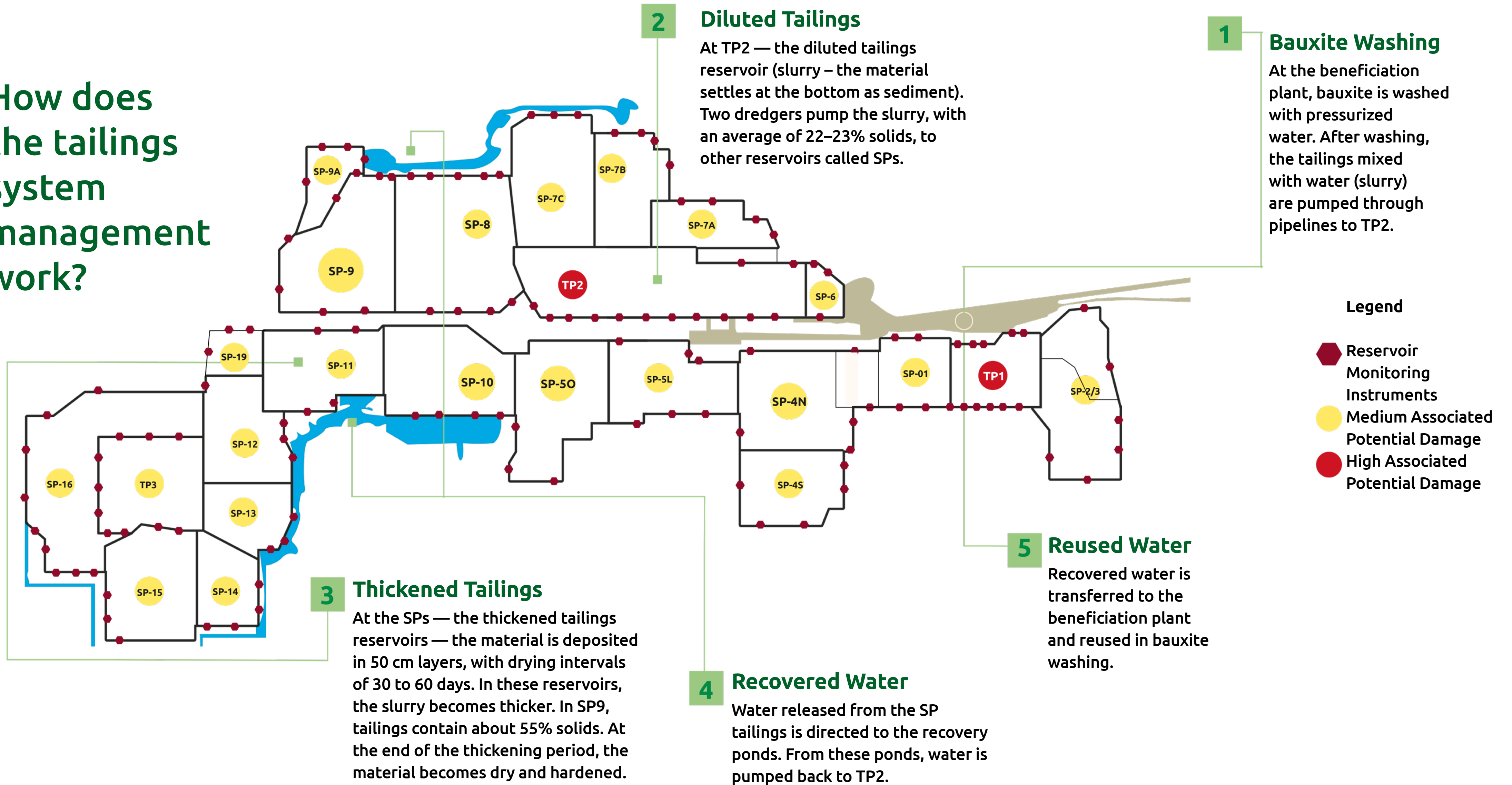
The construction of the reservoirs uses conventional engineering techniques, seeking a high standard of safety. The material used is the region's own soil, compacted. **No bauxite tailings were used in its construction.**



## What is the difference between dams and reservoirs?

The MRN reservoirs are high on a plateau and receive only the rainwater that falls in that area. They differ from dams located in valleys, which receive rainfall from all watercourses in the contribution basin.

# How does the tailings system management work?



MRN reservoirs are located in isolated areas, mainly those of the Saracá Plateau, which significantly reduces the risk of impacts on downstream populations. Simulations of hypothetical dam breaks demonstrate no communities would be affected, and the effects would be restricted to roads and internal operational areas belonging to the company. Each year, the company schedules cycles of training seminars and emergency drills, detailing all information on the Tailings Dam Emergency Action Plan (PAEBM) for its employees.

[More information is available here.](#)

In addition, the reservoirs are not susceptible to liquefaction, due to the characteristics of the bauxite tailings. If a failure occurs, movement is slower and more controlled, without large

displacements of materials that behave like liquids. The most likely failure scenarios are overtopping — when the water exceeds the limit of the structure — and localized ruptures, both of which would present low propagation speed and lower mobilization energy. Understanding this, MRN adopts all necessary mechanisms to mitigate these risks. In addition, as the tailings generated in the bauxite processing process are classified as non-hazardous waste (Class 2B – inert), they would not pose a risk for contamination of water bodies during leakages. The main simulated environmental impacts would be limited to the temporary increase in water turbidity in nearby areas, without significant damage to fauna, flora or local communities.

## Distinguishing characteristics of MRN dams and reservoirs

### 01.

#### **Reservoirs and dams in MRN are of low height**

The average height of the MRN tailings reservoirs is 20 meters. The A1 and Água Fria dams have a maximum of 11 and 8 meters, respectively. In other regions of Brazil, for example, it is common to find dams that are more than 100 meters high.

### 02.

#### **The topography of the Amazon is predominantly flat.**

Studies prove there is no possibility of sudden ruptures of MRN's reservoirs. In addition, all the company's tailings are deposited in reservoirs above the natural level of the land and are not embedded in valleys as are conventional dams. This adds further safety to our structures, since rainwater contribution is significantly lower.



*Operator controlling the crushing plant.*

The governance of MRN reservoirs and dams was significantly strengthened with the creation of the Integrated Operations Center (IOC), which merges all monitoring and management of structures in a single location. Before, this effort was carried out in isolation, with technicians working in different environments, which made it difficult to respond to emergencies and increased operational risks. With the

integration into the IOC, more than 50 professionals linked to the management of these structures began to operate in an environment shared with other areas, promoting greater safety, synergy and efficiency in decisions. The proximity between geotechnical technicians and plant operators, for example, allows quick responses in critical situations, such as heavy rains or raising structure levels. At

these times, the team can assess the risks and decide, in a coordinated manner, for the preventive interruption of operations, reinforcing MRN's ability to act proactively in risk management.

**The monitoring system operates uninterruptedly and has been continuously improved. Currently, about 1,000 automatic sensors are installed in the structures of**

**reservoirs and dams, transmitting data in real time to the IOC.** In addition to these sensors, manual instruments with reading routines defined in the structures' operation manual are used, as required by ANM Resolution No. 95/2022. Automatic readings are analyzed daily by geotechnical engineers, while manual readings are performed biweekly. This instrumental monitoring is complemented by regular field inspections conducted by technicians and engineers, who visually assess the structures and verify their integrity. This entire process allows the preparation of preventive and corrective action plans, reinforcing operational safety.

In addition to technical monitoring, corporate governance on the subject is reinforced by periodic audits carried out by external bodies, such as the *Aluminium Stewardship Initiative* (ASI), by legal compliance audits and by regular assessments required by shareholders. These results are discussed in specific meetings and communications to the Dams Committee.

## Control of Structures

Among the methods used by MRN to control its structures are:

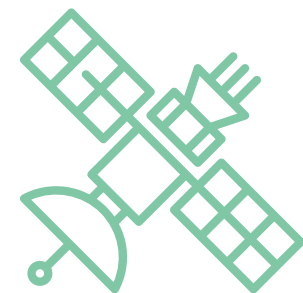
- Constant evaluation of the internal water pressure in the reservoirs by means of piezometers, which are instruments used to measure underground water pressure.
- Water level control
- Monthly safety assessment of the structures, carried out by an independent specialized company.
- Daily visual inspections eyeing the tailings system and biweekly inspections on existing structures.
- Mapping of the available useful volume of the reservoirs.
- Risk Management with the participation of an independent auditor.
- Survey of topographic information, including walls, base and reservoir levels.
- Independent auditor on-site in the field year-round, issuing monthly performance reports on the tailings system and dams, as well as biannual Stability Conditions Declarations.
- Monitoring by national and international consultants.
- Update of flood zones and reservoirs.
- Routine continuous evaluation of the Emergency Action Plan for Mining Dams (PAEBM).



Technical visit to the bauxite tailings reservoir.



Programs for processing and cloud storage.



Satellites for monitoring possible strains in reservoir walls.



Remotely activated sirens.



MRN HAS

- 846 automatic electric piezometers
- 113 manual open tube piezometers
- 100 water level measurement rulers
- 8 automatic rain gauges
- 40 installed automatic inclinometers

## New tailings disposal methods

MRN has been adopting more sustainable tailings disposal solutions with the implementation of mechanized dry disposal methods. This approach, aligned with the closure guidelines for the Saracá Plateau, involves the excavation of specific structures where tailings are initially deposited and undergo a natural drying process. After this period, the dried material is mechanically removed and transferred to previously mined and properly licensed areas, which are part of the plateau closure plan. This practice supports the reconfiguration of the reservoirs, enhances the physical stability of the structures, and offers a technical alternative to the traditional wet disposal method. More information in the section [“Dry Tailings System Project \(PSR\)”](#). In addition, the company is developing a pilot project to manufacture bricks from dry tailings. Still in the initial testing phase, this initiative seeks to expand the reuse of the material, even though on a smaller scale.

**MRN's Tailings Mechanical Removal Plan reached another record in 2024: more than 2.2 million cubic meters of dry tailings removed in the Saracá Leste and Saracá Oeste plateaus, a 10% increase over the total removed in 2023.**



*Equipment operating in the bauxite tailings reservoir.*

## GISTM

MRN is in an advanced stage for implementing the *Global Industry Standard on Tailings Management* (GISTM), an international framework developed by a panel of experts from the United Nations Environment Program (UNEP), the *Principles for Responsible Investment (PRI)*, and the *International Council on Mining and Metals (ICMM)*—of which MRN’s shareholders are members. Therefore, MRN’s adoption of GISTM for all tailings structures was strongly encouraged, representing an important step in strengthening its tailings management and aligning with international best practices.

Aligned with the GISTM, MRN reaffirms its commitment to responsible management regarding its *Tailings Storage Facilities (TSFs)*, focusing on risk prevention and mitigation as well impacts to health, safety, the environment, communities, cultural heritage and local infrastructure. Adopting the standard contributes directly to reinforcing existing controls and boosting operational resilience when facing possible critical events.

The GISTM establishes 15 principles organized into six thematic areas, which guide the safety and integrity for tailings structures throughout their life cycle, from planning to closure. These principles provide a solid basis for decision-making and continuous TSF risk management improvement.



Included in this commitment, the company began gap mapping in 2021 and, since 2022, has been fully implementing the GISTM, including all 77 requirements. At year's end, MRN had reached 73% compliance, from 186 mapped actions. The goal is to reach 100% by August 2025. This progress results from engaging multiple areas across the company: Geotechnics, Operations, Engineering, Communications, Environment, Human Resources, Community Relations and Corporate Management.

To support this initiative, MRN structured its Tailings Management System (TMS) to integrate policies, procedures, responsibilities, information systems, continuous training, independent audits and performance reports. The TMS ensures that every

stage in the life cycle of the structures—from planning to closure—is guided by technical rigor, ethical standards, and transparency.

The system's governance is further reinforced by a Corporate Tailings Management Policy (GISTM Policy), which guides decisions and conduct throughout the company. This policy establishes clear principles for risk assessment and management, stakeholder engagement, open communications, regulatory compliance, and continuous improvement. Within the governance framework, MRN has formally designated the key roles defined by the GISTM, including the Engineer of Record (EoR), responsible for ongoing tailings safety monitoring; the Accountable Executive (AE), who oversees strategic decisions related to TSFs; the Responsible Tailings

Facility Engineer (RTFE), who heads up technical execution and operational compliance; and the Independent Technical Reviewer, who offers impartial analysis and supports continuous improvement.

**Although MRN's reservoirs and dams do not have a very high consequence rating, the company adopts the same excellence standards required for more critical projects, promoting systematic reviews and robust risk management protocols.** Through this comprehensive framework, MRN strengthens its prevention culture, promotes operational excellence and ensures compliance with the mineral industry's highest standards.

To assess the effectiveness of the measures implemented under the GISTM, MRN has structured robust monitoring

and auditing procedures. One important instrument is the internal subcommittee, responsible for conducting monthly checks and monitoring procedures and lessons learned. No instability triggers and a sharp drop in recommendations issued by the Engineer of Record in the past two years clearly indicated concrete progress. The MRN's Stability Condition Statements (DCE) cover all its structures. The DCEs attest to the stability of structures that house tailings, reaffirming the company's commitment to safety.

The GISTM implementation initiatives were organized into four major topics, each contemplating key strategic deliverables to strengthen governance, risk management and the commitment to protecting communities and the environment. Among the actions already implemented are the following:

# 01

## Strengthening Social and Environmental Governance

Implementation of essential processes aimed at responsible management and stakeholder relations, including the following:

- Human Rights Due Diligence;
- Engagement Plan for communities;
- Structured Grievance Resolution mechanism;
- Socialization Program;
- Spokesperson Preparation Program.

# 02

## Technical Structuring and Preventive Monitoring

Focus on expanding the technical and preventive robustness with emphasis on the following:

- Dam Management System Implementation;
- Dam Break Studies and Water Balance Assessments;
- Climate Change Assessment;
- Developing the Emergency Action Plan for Mining Dams (PAEBM), including simulation drill scheduling;
- Dam Monitoring Center implementation.

# 03

## Engineering, Risk Analysis and Safe Operations

Completion of key technical deliverables aimed at ensuring operational safety and regulatory compliance.

- Change Management and Change Analysis Reports (RAA);
- TMS and *Dam Break* updates;
- Consequence Classification and Population at Risk Studies;
- Project Intent Verification Protocol
- Project Bases Report;
- Establishment of Engineering Criteria;
- Operations Manual;
- Definition and implementation of critical controls;
- Implementation of design criteria and knowledge base integration into projects.

# 04

## Organizational Structure and Policy Consolidation

Progress in organizational maturity and defining internal guidelines, with emphasis on:

- Completing the GISTM organizational structure, appointing key management professionals;
- Implementation of the GISTM Policy;
- Benefits and Compensation Policy;
- Adjustment of job descriptions;
- PAEBM execution and conducting simulations.

## Emergency Action Plan for Mining Dams (PAEBM)

The Emergency Action Plan for Mining Dams (PAEBM) is a regulated operational document that establishes the preventive, corrective and emergency guidelines and procedures to be adopted for these structures. Its objective is to ensure an efficient institutional response and safety for people and the environment, even in low-probability scenarios, such as with MRN reservoirs and dams.

The MRN PAEBM is composed of three specific plans, organized according to the location of the structures, ensuring full operational coverage:

- **PAEBM Saracá Leste:** includes all structures located east of the Saracá Plateau;

- **PAEBM Saracá Oeste:** covers six structures, three in the start-up phase;
- **Port PAEBM:** refers to the two water dams located in the Porto Trombetas area.

In 2024, the company updated and revised the Saracá East Plateau and the Porto PAEBMs. It also prepared and implemented the SP-25 reservoir's PAEBM, ensuring the Saracá Oeste Plateau structure operation, beginning in 2023. All information in these plans was validated by external audits and submitted to the National Mining Agency (ANM), which issued the Declaration of Conformity and Operability for all the company's reservoirs and dams.



PAEBM

Although rupture simulation studies indicate that there are no residential communities located within the Self-Rescue Zones (ZAS), MRN adopts a preventive and transparent approach, promoting preparedness and awareness actions, such as monthly siren tests. The ZAS are defined based on hydrodynamic modeling and, for MRN, do not encompass the Porto Trombetas village or neighboring communities.

All PAEBMs strictly follow ANM Resolution No. 95/2022 protocols, which include actions such as the following:

- **Training and practical simulations:** carried out annually for each area covered by the PAEBMs. The simulations are adapted to each location's characteristics — the Saracá Leste simulation is focused on the activities of the Saracá Plateau and the Processing Plant, while the Saracá Oeste simulation is focused on the works in progress. The Porto PAEBM

involves actions aimed at raising the local community's awareness.

- **Tabletop exercises:** conducted annually to simulate the communication flow provided for in the plan. During the year, all internal and external agents involved are contacted, including the Civil Defense, ANM and the company's Board of Directors to verify communication channel effectiveness in emergencies.
- **Audits and periodic reviews:** the PAEBM protocol is reviewed twice a year by an independent external consultancy, which assesses compliance with legal requirements and the robustness of response actions.
- **Orientation seminars with communities:** even if they are not in ZAS, the communities neighboring the structures participate in educational seminars promoted in partnership with the MRN

Communications and Community Relations areas. These meetings aim to translate technical language into easily understandable terminology and to clearly explain the main risks, safety measures, and expected behaviors in the event of an incident. In 2024, four seminars were held that helped increase community engagement, with the following main themes:

- Concepts about dams and reservoirs
- Monitoring system
- Bauxite production process
- Tailings characteristics
- Studies conducted to define risk areas
- Areas where people should evacuate immediately in an emergency
- Governing legislation

Booklets were developed to engage the community and to provide greater clarity. The guidance present, simply and didactically, the main concepts about dam safety and the procedures to be followed in an emergency. The initiative seeks to ensure that, even outside the areas of direct impact, residents have access to clear and reliable information. [Access the booklet here.](#)

In addition, MRN has been working on two complementary PAEBM documents: the Business Continuity Plan and the Disaster Response Plan. While PAEBM focuses on immediate emergency response, these two plans address post-event procedures, contributing to a comprehensive response system.

**"We always have some doubts, and I thought the lecture brought important clarifications. The company is listening to us and sitting with us."**

**José Domingos Rabelo**, a Boa Nova Community resident who participated in the March 2024 PAEBM orientation seminar.



03

People

*João Lacerda,  
Maintenance  
technician.*

## Employees

MRN's 45-year operational history was made possible thanks to the diverse talents who worked and continue to work in the company. Therefore, people management is one of the main foundations underpinning our organizational culture, since it is employees who put into practice the company's values, vision, mission and purpose. They are also the ones who, in line with the company's sustainability governance, enable operations that minimize negative socio-environmental impacts while promoting local socio-economic development.

MRN stands out for the strong, positive perception regarding its organizational culture among everyone involved in the company. Its leaders are present day-to-day in the operations, translating the strategy into concrete actions in the company's

standard routines and promoting respect for people and their individual qualities.

To monitor this perception, in 2024, MRN used the Pulses platform to conduct biweekly organizational assessment surveys over an eight-week period. The surveys assessed 12 dimensions: Leadership, Careers, Feedback and Recognition, Structure, Well-being, Fairness, Professional Development, Alignment with the Company, Ambassadorship, Innovation, Interpersonal Relationships, and Job Satisfaction. Each survey provides managers with insights into their teams' engagement and satisfaction levels, while the HR General Management monitors both overall results and area-specific breakdowns. The Pulses tool empowers leaders to manage organizational climate more independently, supports proactive decision-making, and offers a



**In 2024, MRN achieved a satisfaction rating of 90 points in its organizational climate survey.**

continuous channel for employee feedback.

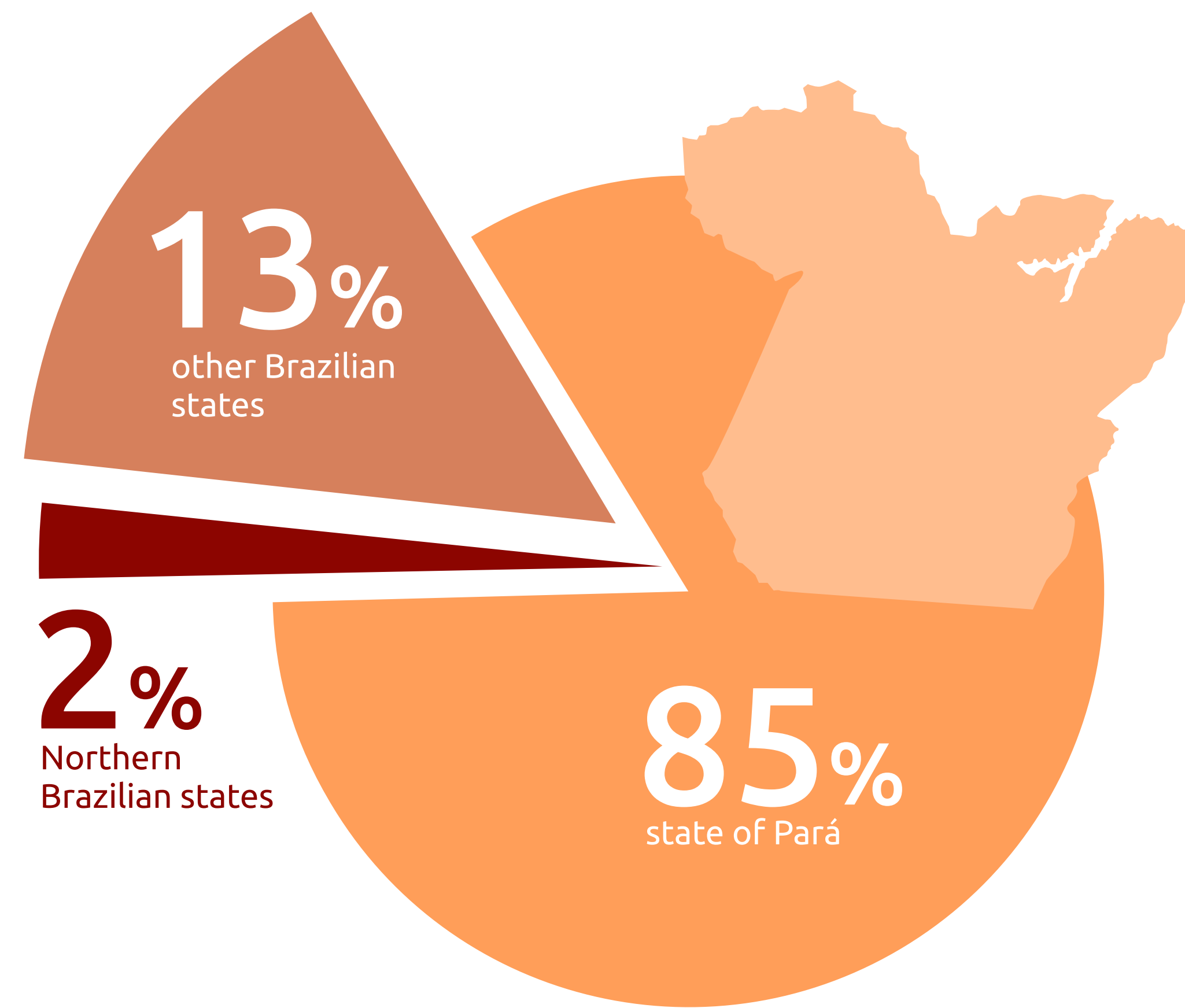
MRN closed the survey with a score of 90, placing it in the excellence range and reflecting employees' strong sense of connection and satisfaction with the company. A key highlight from the survey was the "Ambassadorism" dimension, which gauges employees' pride in being part of MRN, their perception of the company's market image, and how closely their views align with its vision for the future. An area identified for improvement is the "Feedback and Recognition" dimension,

which highlighted the need to enhance formal *feedback* practices to ensure better alignment between expectations and a more consistent perception across the organization. As a result of this feedback, initiatives are already being implemented to strengthen this process internally.

In all, 956 employees participated in the climate surveys, representing 58% of the total direct employees. For 2025, MRN plans to expand this engagement to reach at least 72% participation to ensure greater representation in the data.



In 2024, MRN also had 5,156 contractor employees, who are coordinated by outsourced companies. These workers included 2,744 permanent employees, 1,019 assigned to general construction works, 860 temporary workers, 283 employed in local commerce, 145 linked to public services or partnership agreements, and 105 involved in community services. The activities of these professionals cover areas such as industrial and building maintenance, property security, cleaning, logistical support, machine operation, transportation, health and food services, and *facilities*, administrative and technical services. MRN requires that all its contractors' employees comply with the company's internal safety, environmental, health and performance guidelines. To ensure the information is managed efficiently, the company uses the integrated Screening Portal system, an exclusive tool for the registration and mobilization of outsourced employees. On a monthly basis, the areas send spreadsheets with their respective staff, allowing the data to be checked and updated by the staff in the screening sector. This methodology ensures control and alignment between the outsourced workforce and the company's operational standards.



Of the 1,631 direct employees, 131 are community. In addition, MRN has 40 young apprentices from local communities.

## The Village that sustains the MRN operation

Operating in a national forest is an even greater challenge when it comes to providing decent housing infrastructure and urban amenities for employee well-being. With a housing infrastructure comprising 856 homes, complemented by 1,515 accommodations at the port and 1,200 accommodations at the mine, the Vila de Porto Trombetas is an example of an urban structure that enables good quality of life for its employees close to the mining facilities.

**In addition to houses, the Vila has a hospital, an airport, a school, a hotel, a club, a gym and more than 100 local commercial establishments, including restaurants, a supermarket and various shops.** Also noteworthy is the Porto Trombetas school, which serves family members of employees, as well as children, young quilombo residents and regional

native riverine community dwellers. (Quilombos are protected Afro-Brazilian communities settled by escaped enslaved people who established the settlements called quilombos.) The school has about 700 students enrolled, from kindergarten to high school, with approximately 110 coming from local communities, benefiting from the Basic Education Support Program (PAEB). The infrastructure also includes installation services, maintenance, security, and sanitation, covering urban cleaning as well as water and wastewater treatment plants.

As part of MRN's continuous improvement efforts, the company annually follows its Accessibility Master Plan that is aligned with the company's diversity and inclusion program. This plan provides for adaptations in housing and operational areas, as well as renovations that improve the housing



*Imagem aérea da vila de Porto Trombetas.*



Vila D4 de Porto Trombetas.

conditions for employees and outsourced workers. In 2024, highlights included the works to adapt future female accommodations and the adaptations in administrative, operational and residential facilities for people with reduced mobility.

Also in 2024, improvements were made in structures to support local commerce, such as new facilities for the supermarket and renovations in the children's school with the goal of implementing a daycare center. At Mineração Esporte Clube (MEC), changes were made in the athletic facilities: more operating hours and including additional programs that offer thematic classes that value local culture, recreational activities for children and sporting competitions.

In 2024, a survey was conducted to assess resident satisfaction with Vila's infrastructure and identify opportunities

for improvement. It covered perceptions regarding service quality, facilities, safety and overall support. There were 1,558 respondents, 779 regular employees and 451 contractor employees. The majority of respondents had resided in the Vila for over 10 years.

Positive aspects highlighted in the survey included safety and tranquility in the village, housing quality, the presence and proactivity of security staff, efficiency in sanitation and cleaning services, and a collaborative work environment, among others. Key suggestions included: a) need to reinforce preventive maintenance; b) additional leisure and cultural activities; and c) better transparency in communications about benefits. The survey findings served as the basis for the construction of a 2025 action plan, including appropriate action steps, which will enable MRN to more effectively improve its procedures and enhance its infrastructure.

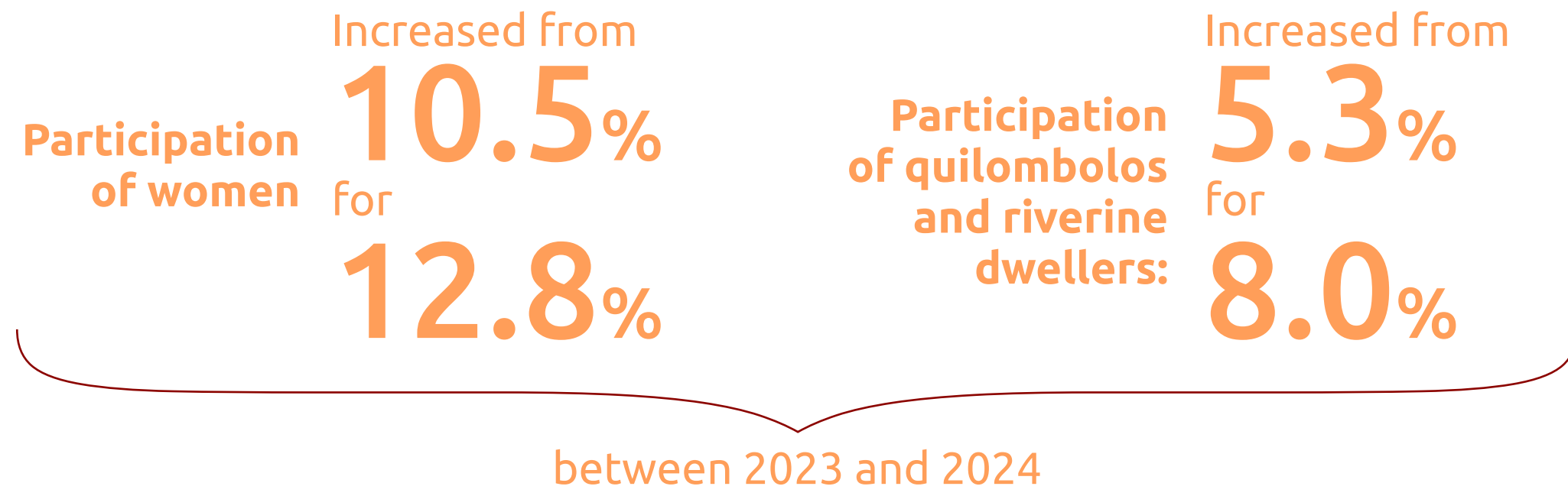
## Diversity and Inclusion

Since 2019, MRN has been developing its diversity and inclusion agenda. Initially, through "Mining Together," which focused on increasing the number of women in MRN's workforce. In 2021, the program was restructured, gaining scope and strength in the company's organizational structure, now "MRN for All." Since then, the program has aimed to inspire, empower, and support the company's various departments in promoting diversity, respecting differences, and ensuring equity in people management policies and practices. MRN understands that strengthening this culture is essential to stimulate empathy, broaden perspectives and contribute to a more collaborative, innovative and representative societal organizational environment.

**The program focuses on five pillars, or affinity groups. They are Gender; Race and Ethnicity; LGBTQIAPN+, Generations and People with Disabilities (PwD).** Each pillar has a leader and a co-leader who head up agendas and, together with the other members, define actions and projects that undergo Board validation to be executed throughout the year. Program governance also includes a Diversity and Inclusion Committee and Subcommittee, composed of pillar representatives, Human Resources members, and, in the case of the Committee, the Executive Board as well. The projects conducted by "MRN for All" can impact both the internal environment and the environment external to MRN by extending some action options to local communities.



*Members of the affinity groups in the MRN For All (MRN Para Todos) Program.*



The year 2024, compared to 2023, marked progress in indicators for women’s and community members’ representation as a result of ongoing diversity and inclusion initiatives. The percentage of women in the workforce rose from 10.5% to 12.8%, while in relation to the number of women leaders, this percentage increased from 13.4% to 15.3%. Increasing female representation remains a challenge given the mining industry’s technical roles—mechanics, heavy vehicle operators, and similar functions. Since around 80% of MRN’s vacancies fall within operations and maintenance, it is essential to design training programs in areas like mechanics and heavy vehicle

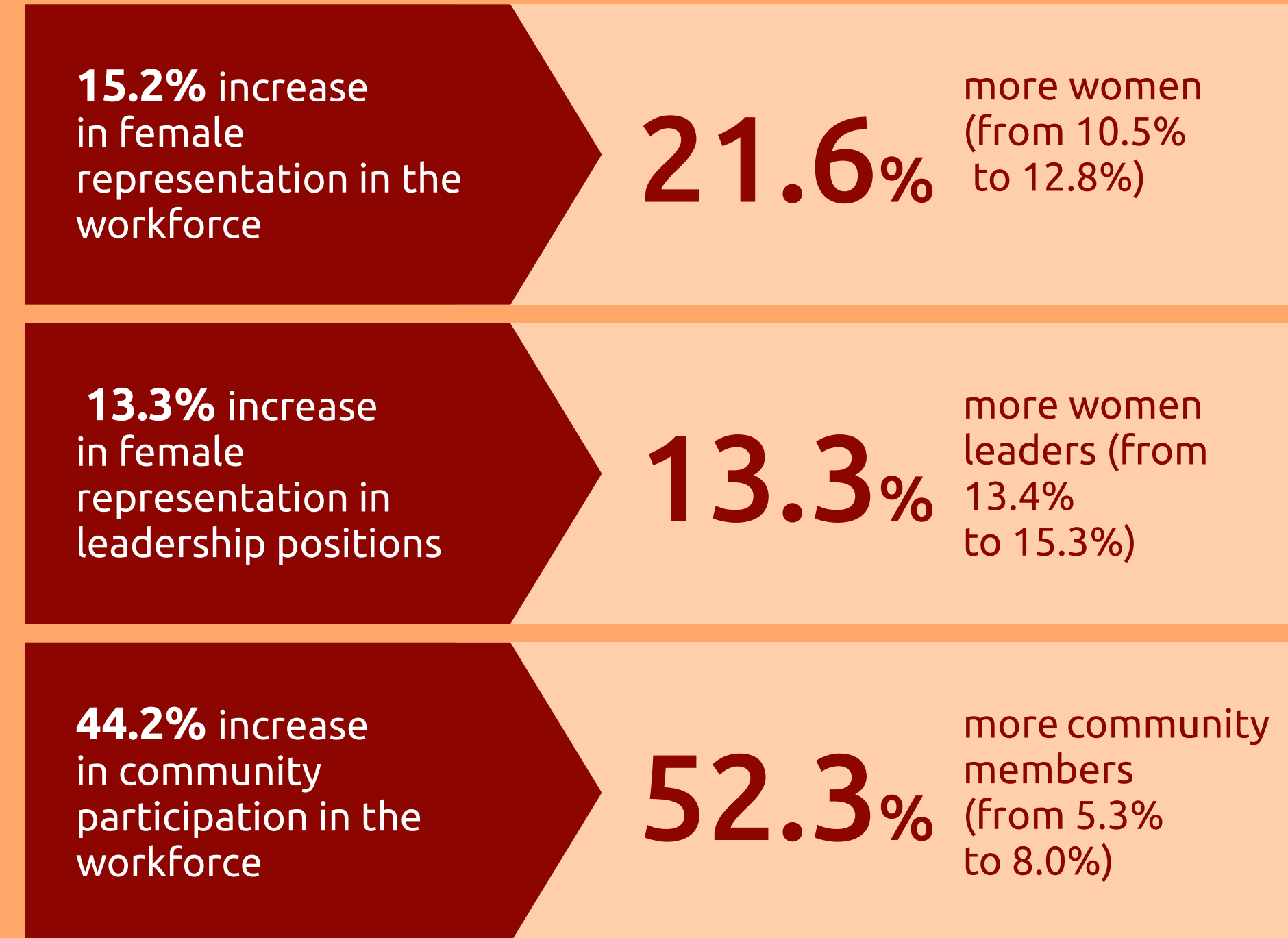
driving, among others, to help more women enter these roles. It is also noteworthy the increase from 5.3% to 8% in the percentage of local community members - quilombolas and riverine dwellers - in the company's employee ranks. This resulted from the increase in the number of people recognized as belonging to such groups and hiring 45 new employees from local communities.

Although these indices still have not reached the desired level of representation, the results demonstrate that MRN has exceeded its proposed objectives for the year 2024 and that the company is on the right path.

2024 DIVERSITY GOALS

2024 GOALS

RESULTS



For 2025, MRN maintains the goals of increasing female and community participation. The target to increase the number of women in leadership positions has been put on hold momentarily following a survey showing expected positions that could be occupied by women while maintaining the internal commitment to identify new opportunities throughout the year.

For 2025, in order to increase female and community representation in the operations, in addition to the availability of courses on the aforementioned subjects, the program includes provisions for issuing first-time driver’s licenses or category upgrades for women and community members, enabling them to access new operational positions.

In addition to the numerical growth in representation, 2024 also stood out for the Diversity and Inclusion Census that, through 20 questions, measured the perceptions of MRN employees in relation to the practices that have been adopted within the “MRN for All” program. With 1,056 respondents among company employees and a 99% reliability margin, the results indicated that literacy, awareness and inclusion policies are promoting a more respectful culture within the company. The employees surveyed gave an approval rating of more than 80% for the program.

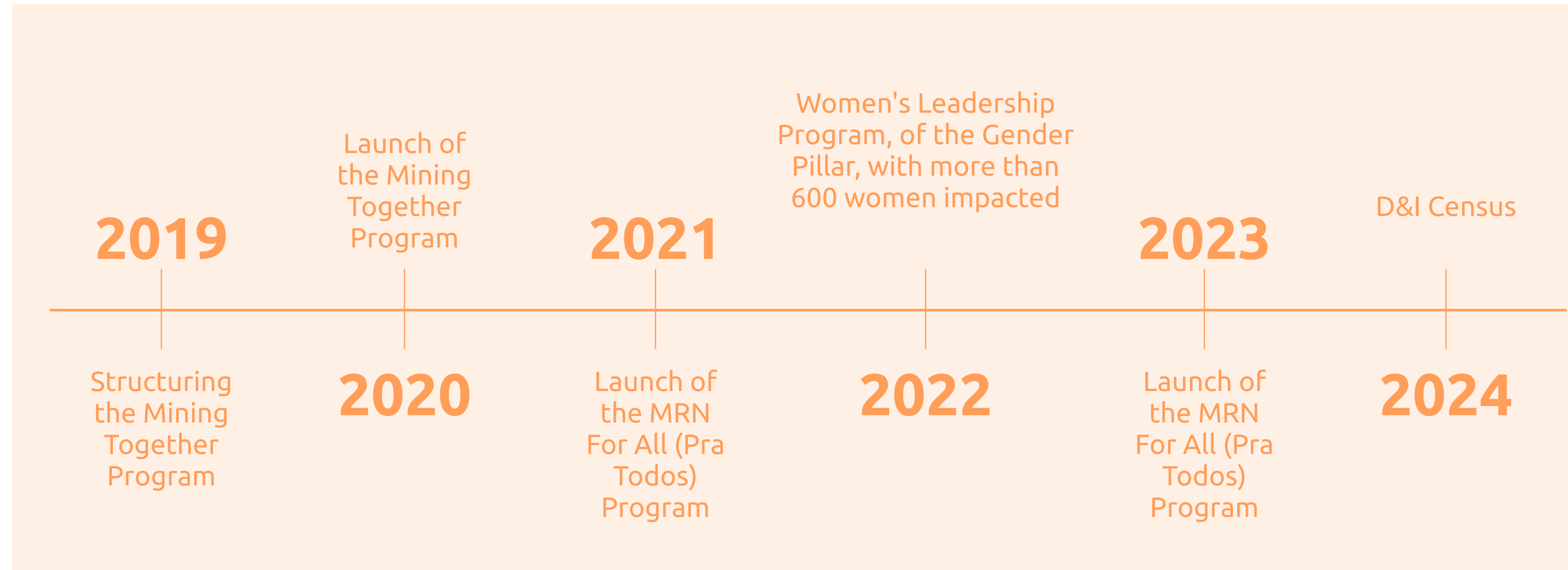
DIVERSITY AND INCLUSION CENSUS



**1,056**  
responding employees



**90%**  
reliability



**In 2024, the “MRN for All” program focused its efforts on the Gender and Race and Ethnicity pillars, focusing on communities, although all ran activities throughout the year.**

## Gender

In the Gender pillar, several structuring actions were conducted with the objective of attracting and developing talent, in addition to promoting an increasingly inclusive and welcoming environment for this population. Regarding new talent attraction, female and community participation in the Open Doors Program is particularly notable: 27 women were hired among the 30 vacancies made available (more information in the section "[Attraction and Development](#)").

As for the increase in the presence of women in leadership positions, the "Lidera Mulher" (Women in Leadership) Project — which was initiated in 2023 and completed in 1Q24 — trained more than 600 women, including direct employees and contractors, and encouraged agency in their professional journeys.

### EXPANDING THE FEMALE PRESENCE

# 600

women, including direct employees and contract workers, were trained to provide leadership their careers in the Lidera Mulher (Women in Leadership) project.

*Conclusion of the "Lidera Mulher" Project, with certificate delivery.*



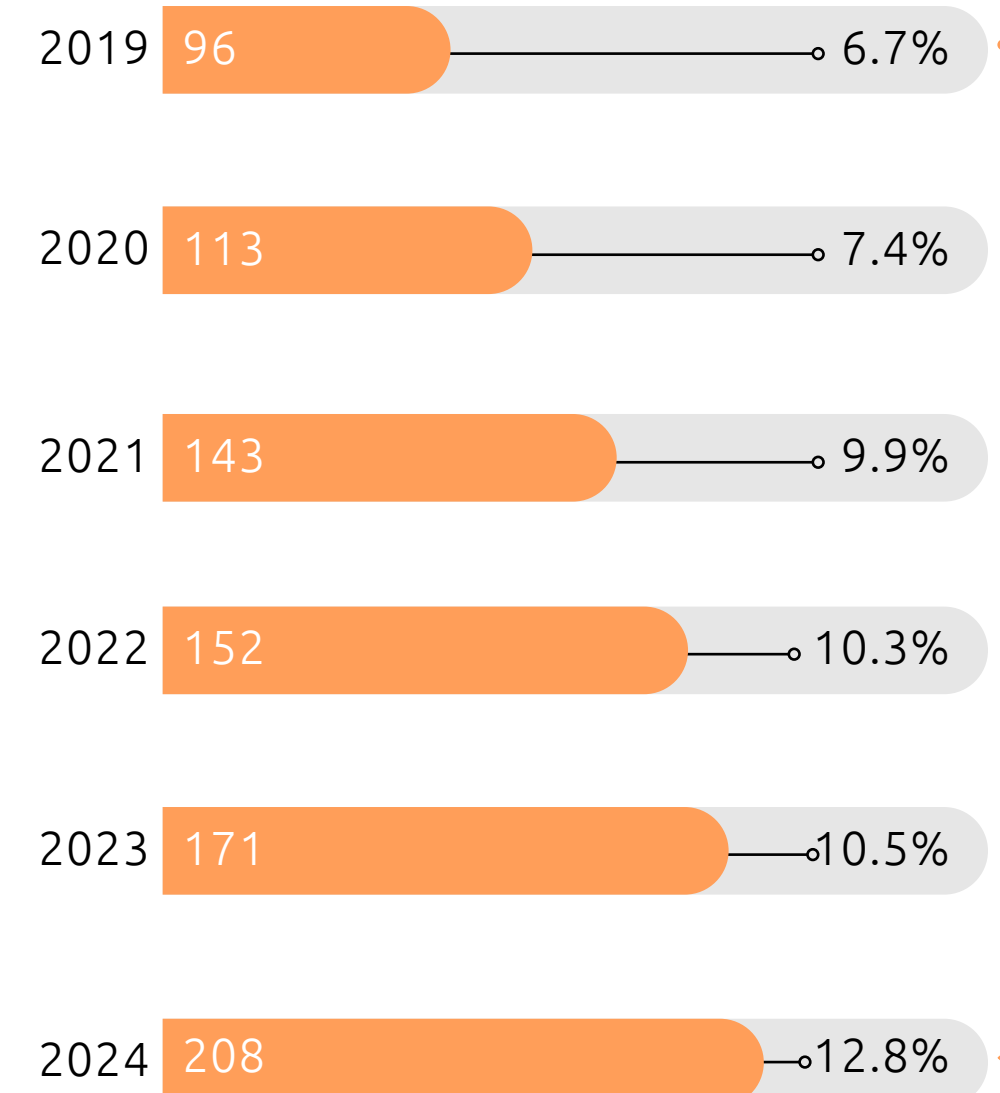
With the same goal in mind, a succession mapping specifically for women was also carried out through the Career and Succession Committee. This initiative included the development of Individual Development Plans (IDPs) focused on accelerating career growth, incorporating training and mentorship opportunities. In addition, to

support women, MRN opened a daycare center in Porto Trombetas in May 2024 for children up to two years old, acknowledging the challenges concerning balancing a career and parenthood. MRN also extended its childcare allowance from 48 to 72 months. In 2024, other actions were also implemented to reinforce these efforts, such as the following:

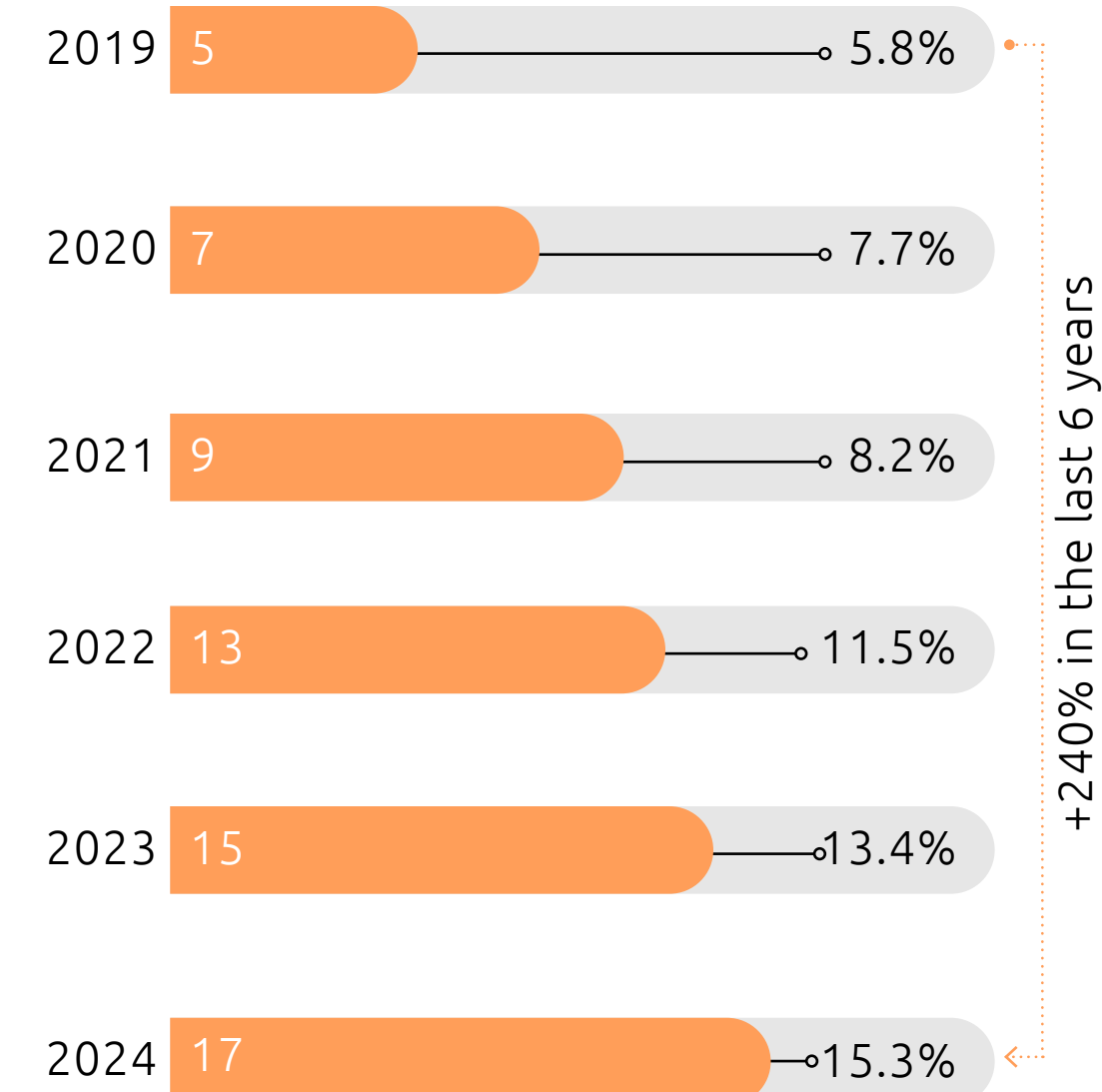
- Daily Safety Dialogue (DDS) special Women's Day
- "Bora Conversar" (Let's Talk) Women's Day Special
- "Eles por Elas" (Men supporting Women) – with the theme Leadership for Equity
- "Lidera Mulher" (Women in Leadership) Project
- Porto Trombetas Female Entrepreneurs Fair
- Communications Campaign "A story for all women"
- "Bora Conversar" (Let's Talk) Women in Engineering Special
- Special "Bora Conversar" (Let's Talk) for Family Day and Mother's Day

### MRN's efforts to increase women in the workforce reflect the gradual and continuous increase in their hirings and assuming leadership positions.

% OF FEMALE EMPLOYEES IN THE WORKFORCE



% OF WOMEN IN LEADERSHIP POSITION





Sâmea Cristina Monteiro, electrician.

### Mine Award

During the 2024 Exposibram, MRN had a special reason to celebrate. Rogério Junqueira, the company's Operations Director, was recognized in the 1st Mine Award Ceremony, promoted by the Brazilian Women in Mining (WIM Brasil) organization. He won the category "Allies in the Pursuit of Gender Equality," which recognized men committed to promoting equality in the mining sector. The award was created to promote gender equity in the mining sector, recognizing female leaders, both in operational and administrative functions, in addition to valuing men who stand out as allies in the pursuit of a more inclusive and fair environment for all.

**"I was quite surprised by the award and recognition. I am honored and incredibly pleased. I thank WIM Brasil for the initiative. Since the beginning of my mining career, I have always had the opportunity to work with very competent women who have inspired me. And I have sought to support women in mining since I understand that there are no differences, and I know that this is good for everyone in the workplace."**

Rogério Junqueira, MRN Operations Director

### Race & Ethnicity

Like the previous pillar, Race and Ethnicity remained a key focal point for MRN throughout 2024. In addition to the objective of increasing quilombola representation in MRN's workforce - through the Open Doors Program - in 2024, MRN sponsored the third annual Quilombola Fair. The event, which is usually scheduled in November in celebration of Black Consciousness Day, aims to provide a space to support quilombola entrepreneurship and raise awareness among the participating public. In 2024, the following were also carried out:

Anti-Prejudice Training Program, including distribution of T-shirts and an Anti-Prejudice manual

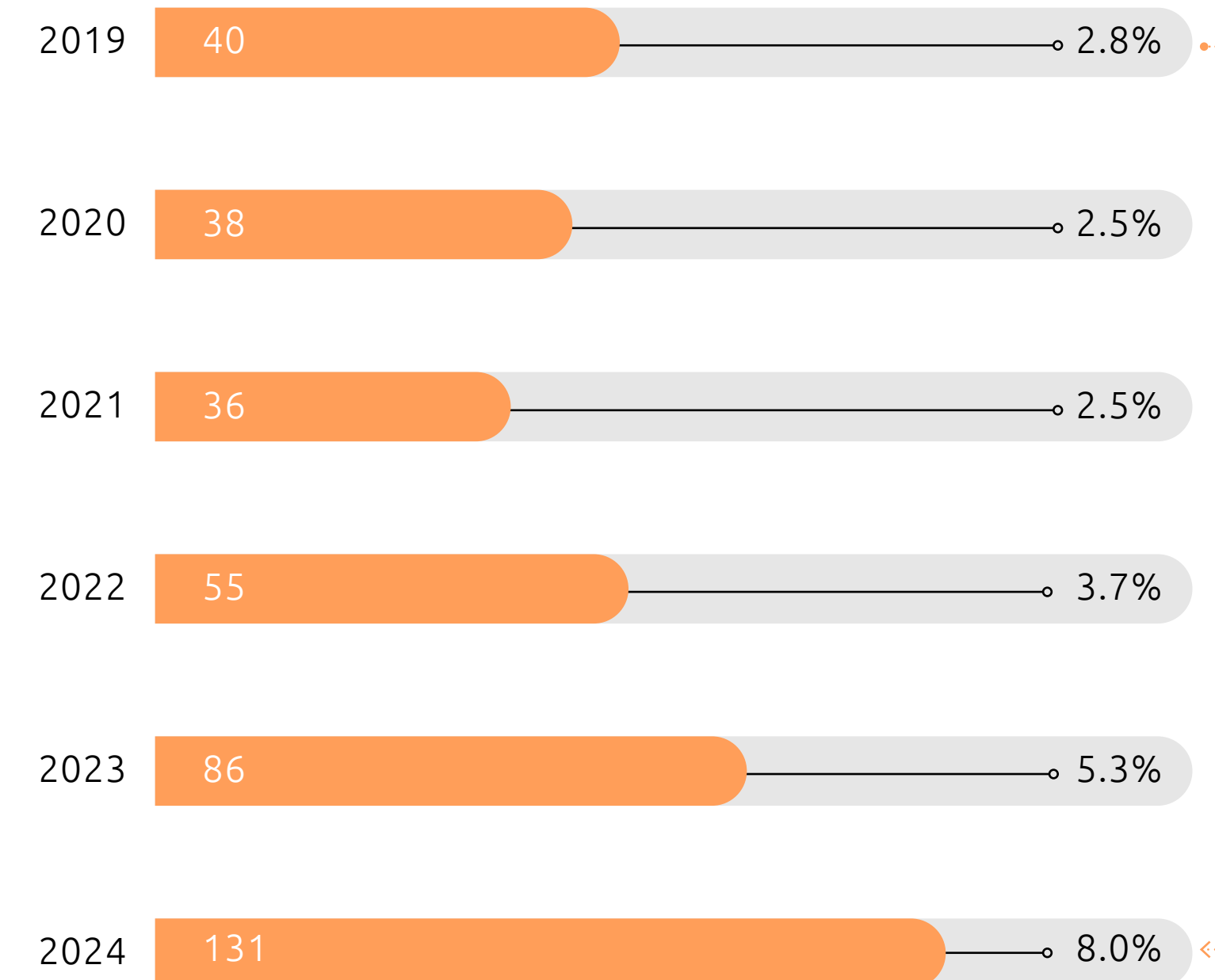
Daily Safety Dialogue (DDS) of Race and Ethnicity



Quilombola Fair Booth in November 2024.

The “MRN for All” program has boosted community representation among MRN employees in recent years.

#### % OF COMMUNITY IN THE WORKFORCE



+228% in the last 6 years

## LGBTQIAPN+, Generations and People with Disabilities (PwD)

In the LGBTQIAPN+, Generations and People with Disabilities (PwD) pillars, the focus was on awareness actions throughout the year, including initiatives such as the Daily Safety Dialogue (DDS) Special LGBTQIAPN+ Pride Month and the “Bora Conversar” (Let's Talk) Special Autism Awareness Day. These actions are key to promoting respect for differences, reducing stigmas and building a more inclusive work environment.



*Evilane Clemente (Trainee), Antonio Ribeiro (Shipment Planning analyst) and Bianca Bentes (Community Relations analyst)*



## Nondiscrimination

MRN takes a firm stance against any form of discrimination, promoting equal opportunities and fair treatment in all employment process stages. Decisions related to employment are made solely based on each position's requirements. There is no distinction between social or cultural origin, religion, gender, race, ethnicity, sexual orientation or disability status. MRN fully complies with labor laws, safeguards vulnerable groups, and ensures safe and healthy working conditions. In addition, as provided for in its Code of Conduct, the Company adopts specific measures to prevent and combat harassment and intimidation, providing all the necessary support to potential victims.



## Repudiation of forced or child labor

MRN strongly repudiates any form of forced labor or degraded working conditions. The company establishes policies and procedures that ensure free, dignified labor relations based on mutual respect. Based on MRN's Labor Relations Manual, all hires – within the company or by contractors – must be conducted in accordance with current legislation, guaranteeing freedom of dismissal, adequate working conditions and the right to leave one's post at the end of the day or in situations when there is imminent risk. Upon being hired, employees and leaders receive clear orientation on the prohibition of abusive, threatening or exploitative conduct. This commitment extends to the MRN value chain: suppliers are informed about the legal and ethical requirements at the moment a business relationship is formalized. To ensure compliance with these guidelines, the company provides confidential reporting channels. Fortunately, until now, no cases related to forced or child labor have been reported.

## Recruitment and Development

### Recruiting Talent

Year after year, MRN invests in recruiting and retaining talent through programs aimed at the entry of new professionals and continuous employee training. One of the highlights is the Young Apprentice Program, which aims to attract and develop local talent in partnership with Brazil's National Industrial Training Service (Senai).

In 2024, 61 young people were selected for the Young Apprentice Program. Some 66% were from quilombola and riverine communities neighboring the operation, and 34% live in Vila de Porto Trombetas. Of this total, 36 are men and 25 are women, all currently undergoing training in mechanics

courses focused on the maintenance of heavy road vehicles or industrial machines. That same year, the program was expanded to reach the Quilombola territory of Alto Trombetas I, marking an important advance in inclusion and access to professional qualification opportunities for young people in the region. This expansion represented a significant investment in logistics, allowing the benefits also to be extended to the Lago do Ajudante community and ensuring the effective participation of young quilombolos and riverine dwellers in the program. In all, 40 people benefited from eight different communities.



*Open Doors Program Members.*



*Priscila de Jesus, IT administrative assistant.*

In addition, the Open Doors Program, launched in May 2024, stands out. For the first time in MRN's history, 30 of its in-house vacancies were created and made available in the administrative area, intended exclusively for people from quilombola and riverine communities. The only prerequisite was that candidates had to have completed high school. The opportunities covered candidates from the following communities: Boa Vista, Lago do Auxante, Lago do Batata, Territórios Alto Trombetas I and Alto Trombetas II, Sapucuá, Chuedá, Cabeceira dos Cláudios and Alema. In addition to contributing to developing



The Open Doors Program attracted more than **500** registered

a more diverse environment within the company, the program aims to promote local socio-economic development through jobs and income generation.

**The program attracted more than 500 applicants, and the 30 vacancies were filled through an objective selection process.** The individuals hired underwent a three-month professional administrative assistant course, conducted in partnership with Senai. After the training period, the participants were assigned to different areas of the company where they provide administrative assistance. In 2025, any of these professionals who do not yet have a university degree will also be given the opportunity to enroll in undergraduate courses in partnership with a higher education institution. For those who have already completed their undergraduate degrees, graduate courses will be available, aligned with the company's areas of activity.

These initiatives are part of MRN's strategy to develop and retain talent, contributing to forming solid careers within the company and expanding professional growth opportunities for people from local communities. **In 2024, MRN also continued the "Plural Talents of the Amazon" Trainee Program. It was initiated in 2023 and is scheduled for completion in October 2025.** During the program, 11 trainees participated; this included 7 women and 4 men from the North Region – Óbidos, Santarém, Juruti, Itaituba, Belém, Manaus, Oriximiná (Quilombo Boa Vista). The program's objective was to help create a development path focused on the corporate environment based on three key pillars: critical thinking — including projects supported by company managers — authentic communication, and leadership. More than a career opportunity and development of individual skills, the program is a commitment to inclusion of the Amazonian community residents.

## People Development

MRN understands that the continuous employees career development is essential to strengthen the organizational culture and ensure operational excellence. In addition to investing in training new talents, the company offers initiatives aimed at the constant improvement of the professionals who are already on its staff, promoting the alignment between individual conduct with corporate values and fostering learning in new knowledge fields.

The Continuing Education actions are conducted in partnership with educational institutions from different regions around Brazil, seeking to incorporate important market trends and modern training methodologies. This approach enables employees to access a wide range of up-to-date and relevant content to support their professional growth.

### Place for the People (Lugar de Gente) Platform

Between late 2023 and early 2024, MRN made progress in its strategy to centralize and digitize training initiatives by implementing the LG – Lugar de Gente (Place for the People) platform. This initiative consolidates the company’s main training programs into a single environment, specifically designed for its direct employees. The tool promotes greater autonomy for employees while also facilitating class management, participation tracking, and the availability of mandatory and strategic content. MRN is continuously improving the platform to enhance its effectiveness.

Throughout the year, 14,873 training participations were recorded, totaling 667,635 training hours—averaging 48.11



**14,873**  
participations in training



**667,635**  
hours of training



**48.11**  
hours per employee trained

hours per trained employee. These included onboarding programs, legal requirements, behavioral training, leadership development, and diversity and inclusion initiatives.

The goal in 2025 is to expand the availability of subjects offered within the platform. This will include content from partner educational institutions on numerous topics, such as assertive communication techniques, leadership and training potential successors, among others.

**The tool promotes greater autonomy for employees while also facilitating class management, participation tracking, and the availability of mandatory and strategic content.**



### Safety Focus

With a focus on accident prevention and risk mitigation, safety training is provided annually through a wide-ranging offering both for direct employees and contract workers. In 2024, 5,078 trainings were conducted for MRN employees and 11,026 for contract workers, totaling 16,104 trainings provided in 684 classes.



*Hand Care Prevention Safety Campaign, held in 2024.*

## Individual Development Plans

The continuous development of employees also involves the creation and monitoring of Individual Development Plans (IDPs). Therefore, in 2024, MRN continued to develop this tool aimed at promoting professional growth for its employees in accordance with individual aspirations and company requirements. There were 760 employees eligible to participate among MRN's direct employees. Of these, 725 (a 95% participation rate) went through the process of developing and implementing their IDPs, which included *feedback* from leaders.

During 2025, two development paths are being offered in order to implement the PDI action plans defined in 2024:

- **Competency Trail:** focused on topics such as collaboration, emotional intelligence, sense of ownership and continuous improvement.

- **Leadership Trail:** aimed at leaders, technical managers and successors, to develop strategic and technical leadership skills, enabling them to manage high-performance teams and drive innovation within the company.

These initiatives aim to strengthen individual capacities and thus contribute to the organization, promoting a more collaborative and innovative work environment.

## Language Program

In 2024, MRN also focused on employee development by offering a language program that aimed to improve efficiency in international communications, facilitating collaboration on global projects and promoting continuous professional development.

## Financial support for higher education

In order to promote the educational and professional development of our employees families, MRN offers a financial support program for dependents who are attending technical or higher education institutions. The initiative also includes career guidance and support in the search for internship opportunities, contributing to students acquiring practical experiences and expanding their professional perspectives. This action reinforces the company's commitment to education and strengthens neighboring communities.



# 180

benefited in  
2024

## Meeting with leaders

As part of the actions to develop and bolster the organizational culture, MRN held another "Meeting with Leaders" event in 2024. It involved all company leaders at a strategic moment permitting engagement with the Board of Directors. The event aimed to reinforce strategic alignment and offer a space to clarify doubts, exchange experiences and engage on the company's key issues. Among the subjects covered in this event: progress on the licensing processes for the New Mines Project (PNM), the Transmission Line Project (PLT), operational performance, the goals established for 2024 and 2025, information on the budget, and an institutional message from the CEO. The initiative reinforced the importance of direct and transparent communications as a leadership and management tool, contributing to a more integrated performance and alignment with MRN's objectives.

## Compensation and Benefits

MRN adopts structured compensation and benefits practices, which reflect the company's commitment to valuing its professionals and aligning with market standards and requirements. Decision-making in this area follows a clear process, guided by the constant search for internal equity, external competitiveness and adherence to best practices.

The remuneration policy is supervised by the Personnel Administration Department, supported by the Human Resources General Management, the Executive Board and

the Board of Directors, and counts on independent experts and uses external salary comparison information. For comparative external salary analyses, it is up to the Board of Directors to decide on the composition of which companies will be used as a reference for salary surveys, which serve as a technical basis for defining the remuneration policy. This process is audited internally and ensures that the compensation of employees and executives fairly reflects their responsibilities and goals, maintaining consistency with the market and the company's objectives.

**MRN's salary policy also values equity: men and women who perform equivalent functions receive the same remuneration, as established in the Positions and Salaries Policy.**

MRN's compensation structure is composed of three pillars: base salary, variable compensation and a comprehensive benefits package. Fixed compensation follows Consolidation of Labor Laws (CLT) criteria and considers responsibility levels and position complexity. Variable compensation, on the other hand, is linked to the achievement of individual and corporate goals. For executives, there is also the Long-Term Compensation (LTIP) program, which aims to encourage retention and commitment to the company's strategic objectives.

MRN's benefits package is designed to meet the needs of employees and their families, with special attention to context in Amazon region operations. The main benefits include a meal card, a Christmas basket, a health plan with access to local hospital and dental care, as well as complementary programs focused on health and well-being. MRN

provides support for parents by offering school and childcare benefits, daycare assistance, school supplies, educational assistance for dependents (technical and higher education), extended parental leave and baby kits — delivered to mothers and fathers at the birth of children. MRN also offers a private pension program called MRNprev. As a strategic incentive, MRN also offers financial assistance for relocation, personal vehicle transportation, and family travel with lodging in their city of origin, as well as vacation travel for these employees from other locations.

MRN also offers the “Start Over” program, aimed at preparing executives and eligible employees for retirement. The program includes training on topics like self-care, financial education, and entrepreneurship, along with benefits such as a six-month extension for the health plan and full severance pay, even in cases involving company-initiated dismissals.

## Health and Safety

MRN considers the safety, health and well-being of its direct employees and contracted workers as fundamental elements for the reliability and continuity of its operations. Therefore, it adopts an integrated approach to occupational health and safety management based on national and international regulations, legal requirements and internal procedures. The company goes beyond compliance with regulatory obligations, promoting an organizational culture based on

genuine care among people and valuing safe, healthy and productive work environments. The MRN Integrated Management System is certified for Occupational Health and Safety, according to ISO 45001 and the *Aluminium Stewardship Initiative (ASI)* requirements. This structure is continuously improved based on internal and external audits and the monitoring of indicators, reinforcing the company's commitment to worker physical and mental well-being.

## Compliance Audits

To ensure compliance of the Integrated Management System (IMS), including Occupational Health and Safety topics, in 2024, an internal audit cycle and an external audit cycle (ISO 45001 and ASI) were conducted. Each audit evaluates both process conformities and possible deviations, which are addressed with corrective action plans. Furthermore, it identifies continuous improvement opportunities. As part of the commitment to excellence and constant system updating, MRN is supported by a specialized consultancy, which guides the company regarding changes in the legislation applicable to its operation.



MRN Beneficiation Plant inspection moment.

## Occupational Health

MRN's Occupational Health Master Plan organizes and directs the company's Occupational Medicine Management through goals, procedures and preventive and corrective actions, focusing on continuous improvement and compliance with legislation. Its objective is to ensure the health and physical integrity of its direct employees and outsourced workers, establishing clear responsibilities and practical guidelines in line with MRN's integrated policy.

The company's approach is focused on prevention, continuous monitoring and promoting the physical and mental well-being of employees, with specific programs

for Health Monitoring, Ergonomics, Fatigue Monitoring and Hearing Conservation. The oversight is managed by a specialized multidisciplinary team, comprised of a coordinating physician, an examining physician, a speech therapist, an occupational nurse, nursing technicians, and specialists in polysomnography and ergonomics. This structure ensures the quality of occupational examinations, contributing to risk mitigation, a healthier work environment, and a reduction in absenteeism.

MRN maintains a robust health structure in Porto Trombetas, composed of two main

pillars that foster the structure defined by the master plan: the Porto Trombetas Hospital and the Inclusive Education and Multidisciplinary Service Center (NEIAM). Both are managed by the Vale do Trombetas Foundation (FVT), a non-profit entity created by MRN to support its operations.

### Porto Trombetas Hospital (HPTR)

The Porto Trombetas Hospital acts as a technical and logistical support base for the MRN Occupational Health Medical Control Program (PCMSO). Classified as a low- to medium-complexity unit – the only one in the region with this categorization – the hospital has 22 beds and has a team of 165 professionals that work in the following specialized areas: orthopedics, pediatrics, gynecology, clinical medicine, urology, ophthalmology, dentistry, nutrition,

The Porto Trombetas Hospital (HPTR)'s service excellence is recognized by applicable certifications:

- ONA Level 1 Certification
- COFEN Quality Seal for the nursing service
- *Green Kitchen Seal for Nutrition and Dietetics Service (SND)*

physiotherapy and mental health. In 2024, HPTR initiated the process to acquire a tomograph. It is expected to become operational in 2025, which will expand the accuracy and agility in diagnostics. To strengthen access to health services, MRN also offers telemedicine consultations and logistical support for transfers to external medical facilities.

When required, the company also offers access to Out-of-Town Treatment (TFD) and extends this benefit to employees' families as part a commitment to comprehensive care and the valuing of life in the corporate environment.

**Investments in health serve employees, their families and communities, reinforcing the public assistance support**

## Inclusive Education and Multidisciplinary Service Center (NEIAM)

NEIAM was created to guarantee free access to specialized services for Porto Trombetas children and adolescents with disabilities or in situations of vulnerability. Aimed to serve dependents of own employees and outsourced workers, the center promotes multidisciplinary evaluation and monitoring based on updated clinical practices and is aligned with the Amazonian region's medical context. Currently, the target audience mostly includes children and adolescents with neurodevelopmental disorders, including Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), and Intellectual Development Disorder.

In addition, NEIAM also provides care that offers family guidance and promotes school and community inclusion. The admission of new patients occurs through hospital screening, with internal referral to psychology, speech therapy and occupational therapy specialists, according to the identified needs. The technical team comprises two speech therapists, two psychologists and one occupational therapist.

With its own coordination, NEIAM is integrated with schools, doctors and families, ensuring humanized and child-centered care. The center is in the process of expanding the technical team, designed to strengthen its performance and expand its service capacities.

**The Vale do Trombetas Foundation (FVT) is a non-profit institution created by MRN that, since April 2023, has been responsible for the management of the Porto Trombetas Hospital and NEIAM, contributing to health and care services.**



NEIAM rehabilitation room.

## Mental Health

With the enactment of Law 14.831/2024 and the update of NR-1, which came into force in May 2025, mental health now plays a central role in the occupational health agenda. Therefore, in 2024, MRN began working with a specialized consultancy to map the psychosocial risks present in its work environment. Evaluations were conducted with approximately 3% of the company's direct employees and contracted workers, and the results of this analysis will be incorporated into occupational health programs. In addition, the company structured a service dedicated to mental health, with a permanent team composed of a psychologist, a psychiatrist and a specialized consulting firm to consolidate a care model aimed at promoting the emotional well-being of its workers.



Audrea Gina Santos de Oliveira, professional from the People Development Department.

## PERFORMANCE INDICATORS

	2022	2023	2024
Presenteeism	655	723	840
Absenteeism Rate	0.9%	0.8%	0.9%
Audiometric Examination Rate	44.1%	39%	41%
Polysomnography Rate	0.54%	0%	0%

*Note 1: Presenteeism refers to patients under work restrictions accumulated over the entire year.*  
*Note 2: Absenteeism consists of the annual average calculated by the formula  $\text{Number of Days Not Worked} \times 100 / \text{Total Employees} \times \text{Days Worked}$ .*  
*Note 3: Audiometric exam rate is the percentage of altered audiometry results recorded throughout the year (Hearing Conservation Program).*  
*Note 4: Polysomnography is a sleep test that monitors brain, muscle, respiratory and cardiac activity during sleep. The rate is the percentage of polysomnography exams with moderate or severe changes (Fatigue Program). For fatigue control, several actions are also conducted with a focus on occupational safety.*

## Occupational Safety

MRN operates daily with a focus on safety in all its processes and activities, reaffirming its commitment to its shareholders, public authorities, neighboring communities and, especially, to each direct employee or contract worker who supports the company in its projects and operations. This commitment goes beyond compliance with internal management standards, legal requirements and national and international certifications, such as the ASI Performance Standard and ISO 45001. It is based on caring among people, strengthening the culture of prevention, and building a safe and collaborative work environment. Regardless of the operational area among the various activities that make up MRN's mining cycle - mineral extraction, processing, maintenance, shipping,

port, administrative, etc. – **100% direct employees and contractors work with a comprehensive occupational safety system that reduces the risks inherent in the performance of their activities.**

This system includes structured processes for identifying, evaluating, prioritizing and treating risks, with the active participation of employees in addition to specialized technical monitoring. Periodic assessments of work environments and conditions are regularly conducted with employees in field inspections and technical reports. Tools such as Task Risk Analysis (TRA) and High Risk Work Permit (HWP) are widely applied prior to performing activities, which supports operational risk management.

**MRN values the right to refuse activities that present risks perceived by workers, promoting the use of the Stop Card ("Pare Card") — a tool validated by the Executive Board and printed on the back of the employee badges — as an essential part of the commitment to safety.**

MRN values the right to refuse activities that present risks perceived by workers, promoting the use of the Stop Card ("Pare Card"). This tool is validated by the Executive Board and is printed on the back of employee badges — essential to the commitment to safety. By being given the right to use this card, all employees can exercise their right to interrupt any activity if they do not feel safe or perceive something that may put their or a colleague's safety at

risk. The company also ensures that all reports of non-conformities, near misses, or unsafe situations are treated seriously and without any retaliation, through channels such as the internal *compliance* system (with an option for anonymity) and with direct support from leadership. Additionally, pre-employment, periodic, and termination medical exams are used as tools to monitor employees' health and well-being, as well as to provide guidance on the preventive measures adopted.

## Fatigue Control Program

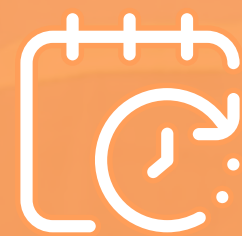
The fleet used in mining operations uses a fatigue prevention system. The program takes a comprehensive approach to preventing operator burnout by offering attention tests, stimulation breakrooms, and balanced meals. In addition, operators are encouraged to take voluntary breaks if they do not feel able to perform their activities.

IN 2024:



**192,889**

results of tests conducted



**102,892**

at the beginning of the shifts; 89,997 at the end of the shifts



**175,377**

compliance results (90.9%)



**15,939**

attention results (8.3%)



**1,573**

nonconformance results (0.8%)



**626**

employees evaluated



Routine inspection at the Bauxite Beneficiation Plant.

Regular health and safety training is planned according to the specific demands of the operational and maintenance areas. These training programs include topics such as safe driving and handling of vehicles and equipment, accident prevention, correct use of Personal Protective Equipment (PPE), identification of occupational risks, work permits and internal procedures.

**Training is conducted from the initial onboarding of employees, with periodic retraining in line with legal requirements and applicable regulations.** The objective is to foster an accident prevention culture from each professional's first day on the job. This is made possible through two training centers dedicated exclusively to the training and guidance of MRN direct employees and outsourced workers, ensuring the standardization and effectiveness of the learning process.

**MRN's safety culture is reinforced by continuous listening and participation channels.** Initiatives such as the Daily Safety Dialogue (DDS) promote the proactive management of daily risks and the verification of workers' preparation for their tasks. The company also participated in organizational representation through the Internal Commission for the Prevention of Accidents in Mining (CIPAMIN) and the Contractors' Safety Commission (COMSECON), which bring together representatives of employees and employers in monthly and ad hoc meetings, whenever necessary. In addition, the Central Committee — comprised of the Executive Board and General Managers — holds monthly meetings with follow-up in the Area Committees, promoting the alignment of safety practices at all company levels.



*In the top photo, members of the Internal Commission for the Prevention of Mining Accidents (Cipamin - Gestão (Management) 2024/2025). In the bottom photo, members of the Contractors Safety Committee (Consecon)*

Throughout 2024, MRN conducted various initiatives that strengthened the safety culture and reinforced the best practices provided for in its management system and Safety Master Plan. Among the initiatives, awareness campaigns, training, structural and operational improvements, and studies for applying artificial intelligence in occupational safety processes were emphasized. The primary actions promoted included:



DDS (Daily Safety Dialogue) in the Forest Nursery area.

Dissemination of 32 Safety Alerts focused on accident prevention and lessons learned internally and in the mining sector.

Research and campaign to reinforce the reporting of near misses, with the participation of more than 990 employees.

"Hand in hand with safety" campaign, on prevention of accidents to hands.

Green April ("Abril Verde") safe transit campaign, involving students, contractors and the school community in Porto Trombetas.

*Off-road* driving training for direct employees and contract workers.

*Front Leaders* Project, which trained more than 210 field leaders.

Monthly and annual recognition of best safety practices.

Reactivation of the Manager Commitment Matrix, with the participation of 137 leaders.

General safety shutdown with a focus on direct dialogue with leadership.

Organizing the Internal Week for the Prevention of Workplace Accidents in Mining (SIPATMIN) and including the theme in the MRN Excellence Week.

Conducting nine emergency drills.

## PERFORMANCE INDICATORS

TYPE OF OCCURRENCE	2024
Reportable occurrences without leave	7
Reportable occurrences with leave	3
First aid	14
<b>TOTAL</b>	<b>24</b>

ATTENDANCE RATES (NBR 14280 - HHT 1,000,000)	2024
Reportable without leave	0.51
Reportable with leave	0.22
Total reportable	0.73
First aid	1.03
<b>TOTAL</b>	<b>1.76</b>

ATTENDANCE RATES (International - HHT 200,000)	2024
Reportable without leave	0.10
Reportable with leave	0.044
Total reportable	0.146
First aid	0.20
<b>TOTAL</b>	<b>0.35</b>



**In 2024, MRN recorded about 13.6 million man-hours worked, of which 4.3 million were by its direct employees, 7.1 million by outsourced workers, and 2.2 million in projects.**

In 2024, MRN recorded about 13.6 million man-hours worked, of which 4.3 million were by its direct employees, 7.1 million by contract workers, and 2.2 million in projects. The rate of reportable accidents (0.73 per million hours) remained below 1.0, according to the benchmark of the sector's reference institution, the International Mining and Metals Council (ICMM). There was a reduction of 23.1% in the first aid rate and 10% in the overall rate compared to 2023, reinforcing the effectiveness of the actions implemented.

These results reflect MRN's commitment to the physical safety and health of its employees, the engagement of leaders, and the consistent application of a safety culture based on continuous learning and constant improvement.



## Communities

MRN recognizes that its performance in territories with a significant presence of quilombola, riverine, rural and urban communities requires an approach based on respect, qualified listening and the promotion of fair and collaborative relationships. Aligned with human rights principles and to recognize the culture, history and ancestry of the territories, the company guides its social initiatives in the search for mutually beneficial solutions. This ensures that the interests of the communities are considered in the decision-making processes and contribute to maintaining its Social License to Operate (LSO).



*Cledinaldo Durão and his son Clemerson, in the Boa Vista community.*

The company adopts a structured impact management approach, based on robust and up-to-date technical studies, with the objective of mitigating or compensating for negative impacts and enhancing the positive ones in the municipalities in which it has influence in West Pará. All operations include previous socio-environmental assessments, as well as community development programs organized in a participatory manner, based on Environmental Impact Studies (EIAs) and Environmental Management Plans (PGAs). These documents guide mitigation, compensation and continuous monitoring actions, with indicators defined with the licensing agencies. They serve as technical impact management instruments. In quilombola territories, the Quilombola Component Study (ECQ) stands out, from which the Quilombola Basic Environmental Plans (PBAQs) are being developed.

MRN recognizes the existence of relevant impacts, real or potential, mainly in the quilombola and riverine communities of Oriximiná, Terra Santa and Faro. These impacts have been analyzed in light of historical and territorial vulnerabilities, such as geographical isolation, institutional fragility and precarious infrastructure in essential areas such as health care, transportation and education.

In the economic aspect, the collection of taxes and the increase in local income generated by the MRN jobs strengthen the regional economy, boosting trade and services. This scenario, however, highlights the strong dependence of local communities on mining. This, in turn, requires MRN to promote structuring actions, such as encouraging alternative production activities. In environmental terms, the proximity of operations to natural resources requires constant monitoring and continuous environmental



*Activities of the Fish Farming Project.*

control measures, especially considering that the territory's communities maintain a vital connection with water, fishing and local biodiversity. In addition, a potential impact identified by the EIA of the New Mines Project (PNM) is pressure on public services during peak periods of labor mobilization in the implementation phase of the project. Thus, a monitoring program was defined in relation to the services and infrastructure of the municipalities in its

areas of direct influence.

MRN conducts ongoing, structured monitoring of these impacts, drawing on impact assessments and community dialogue. In 2024, the company updated its Human Rights Due Diligence (HRDD), listening to stakeholders and reviewing the matrix of risks and impacts on Human Rights in order to deal with each of them, considering their criticality.

Socio-environmental studies, qualified listening within the scope of licensing processes, risk and impact assessments on Human Rights. For their part, continuous interactions with communities resulted in the construction and permanent updating of a Social Engagement Plan, through which 43 meetings were planned and held with 62 communities and 482 stakeholders in 2024. The Engagement Plan includes ongoing stakeholders mapping and evaluation, the strengthening of communication strategies and the establishment of community committees. It also encompasses efforts to identify strategic projects, manage social investments and continuously assess effectiveness. Focusing on ensuring active listening at all stages — from licensing to execution — the plan strengthens dialogue, trust and mutual collaboration.

To ensure continuous listening, MRN maintains formal structures such as the “Falaí Comunidade” (Speak Up Community) channel and the Ombudsman's Office. These interactions reinforce the Social pillar within the Integrated Management System, which organizes the relationship with the different social actors and guides the definition of investments and commitments aligned with the region's priorities, contributing to the elaboration of consistent short-, medium- and long-term engagement plans.

In 2024:



**482**

**mapped stakeholders.**



**62**

**engaged communities.**

### MRN Institute: future commitment to the territory

The establishment of the MRN Institute will mark a new stage in the trajectory of institutional evolution of Mineração Rio do Norte, reinforcing its commitment to the sustainable development of the communities in the territory in which it operates.

This initiative follows a process started with the creation of the Sustainability Board, a landmark in the company's modernization process, aligning MRN with international socio-environmental management standards adopted by large mineral sector companies. With this structure, mining began to incorporate sustainability as a transversal strategic axis, going beyond legal compliance to promote shared value.

The MRN Institute will represent another step in this transformation process. Its mission will be to strengthen and expand the company's social responsibility actions, acting with greater agility, capillarity and ability

to articulate with external actors, either by sharing technical and institutional knowledge, or in the mobilization of new resources for investments in the region. Through the Institute, it will be possible to:

- Expand the positive social and environmental impact of the initiatives already underway in the search for sharing the value generated by MRN
- Deepen the relationship with communities and partners in the region and other locations;
- Raise external resources, including from shareholders and national and international institutions;
- Attract new partners for structuring projects in the fields of education, income generation, community infrastructure and others.

By 2025, the goal is for the Institute to be structured and publicized to society.

## Social Dialogue

For MRN, listening to communities is essential for strengthening bonds of trust. Therefore, based on respective international standards, industry best practices and the UN Guiding Principles for Business and Human Rights, the company maintains structured listening and response channels. They are duly accessible and culturally appropriate, designed to promote transparent, continuous and effective communications with local communities.

The main formal mechanism aimed at communities is the (Speak Up Community) “Falái Comunidade” channel that was established to receive individual or collective input related to the company's operation. The channel offers multiple contact options, including email, WhatsApp, phone calls to dedicated hotlines, and exclusive physical drop boxes that allow anonymous reporting, ensuring flexibility and security in communications.

The inputs received are classified according to their nature - complaint, suggestion, praise and questions - and sent for analysis and internal negotiations, with subsequent feedback to the individuals initially making the contact. Interactions are recorded in the Borealis system, a platform used to monitor concerns and monitor how stakeholder demands are handled. The system is parameterized to generate reports with performance indicators and level of resolution, considering the complexity regarding the items reported.

In 2024, 117 interactions were registered via "Falái Comunidade" (Speak Up Community), with 88 complaints, 16 questions and 13 compliments, which reflected the active use of the channel by the communities. The 88 complaints received were handled with a 100% resolution rate. None of the demands required remedial measures.

### IN 2024, SEVERAL ACTIONS WERE TAKEN TO ENCOURAGE THE USE OF SPEAK UP BY COMMUNITIES, SUCH AS:

- 01 Preparation of a dissemination list to reach as many community members as possible;
- 02 Broad dissemination of the channel's existence in periodic meetings and on social media;
- 03 Installation of a physical drop box at the Vila de Porto Trombetas Community Fair. This allows people without cell phone/internet access to submit their requests, suggestions, doubts, compliments or complaints with the option of identifying themselves or remaining anonymous;
- 04 Improving feedback beyond traditional WhatsApp and email submissions, with the presentation of relationship metrics in meetings with communities that have recorded interactions;
- 05 Conduct a channel satisfaction survey.



Community Relations area conducting Falai Comunidade contacts.

**117** total interactions

**88** complaints

**16** queries

**13** praise

**100%** resolution of complaints received

MRN continuously applies evaluation forms at the end of community engagement meetings, allowing participants to contribute individually with suggestions on the topics presented, including the Speak Up Channel. This approach broadens user engagement in identifying opportunities for improvement in channel communications and disclosures. In addition, during the presentations,

community members can also express their opinions collectively, enriching the debate and strengthening the active listening process.

The Community Relations Management performs monthly verification of records to ensure that all interactions are correctly classified, that trends are identified, and that all manifestations are being properly handled. Quarterly, the results are reported to the Sustainability Committee, ensuring transparency and strategic alignment in the management of the community relationships.

**Falai Comunidade**

 **(93) 99189-6054**

 **[falai@mrn.com.br](mailto:falai@mrn.com.br)**

## Visiting Program

Also as a reinforcement to the Social Dialogue, MRN continued the Visiting Program, an initiative consolidated for more than two decades that reinforces the company's commitment to transparency and strengthening community dialogue. The action is targeted at community members, family members of direct and third-party employees, educational institutions and associations, and aims to promote a clear understanding of MRN's operations and practices.

More than just opening the company's doors, the program seeks to build bridges of trust and knowledge, clarifying doubts,

demystifying processes and inspiring new generations.

The visits follow a roadmap that goes through MRN's main operational activities, such as mining areas and operational centers, as well as projects aimed at environmental recovery, such as the Forest Nursery (Viveiro Florestal). During the tour, visitors have access to clear and accessible explanations about MRN's operations, socio-environmental practices and commitments to safety and innovation. At the end of the visits, participants are offered an evaluation questionnaire, and the assessments help MRN work to improve the program.



*The Boa Nova community visit (Oriximiná/PA), in 2024, to the Forest Nursery (Viveiro Florestal).*

**The visiting program reinforces transparency**



Communities



Educational Institutions



Employees and family members



Associations

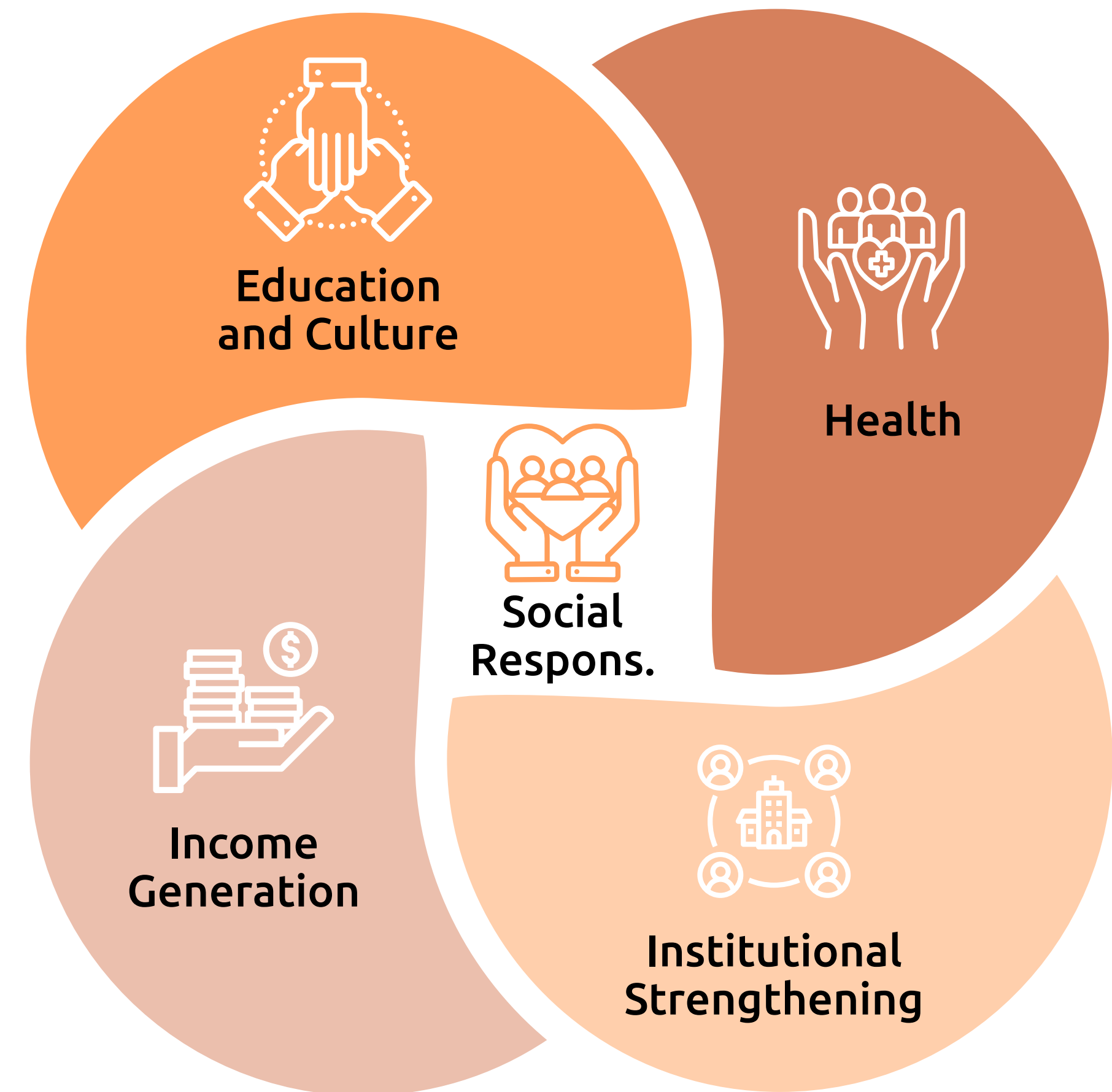
## Social Responsibility

With a focus on Social Responsibility, MRN carries out social investment initiatives that go beyond the legal obligations of socio-environmental licensing, aiming to share the value generated in the regions where it operates.

Aware of the limitations of purely assistentialist practices, the company has been shifting its social approach toward building more autonomous, sustainable and long-term relationships with local communities. This change seeks to reduce dependence and stimulate community protagonism through actions aimed at knowledge transfer and development of local capacities.

In addition, MRN has intensified engagement with government, recognizing that a positive legacy depends on reinforcing institutions and local governance.

All investments, whether voluntary or due to legal requirements, are guided by impact assessments and based on a process of active listening to communities and social engagement plans, which identify the region's most pertinent needs. In this context, social responsibility investment projects are primarily concentrated in the fields of Education and Culture, Health Care, Income Generation and Strengthening of Institutions.





## Education and Culture

*Education as a structuring axis for development*

MRN recognizes education – formal and non-formal – as a strategic pillar of its social programs, as it understands that access to knowledge is fundamental for the construction of an autonomous and sustainable future. In this sense, it invests in initiatives that promote continuous learning, value traditional knowledge and encourage local protagonism. The actions prioritize educational training, technical and professional qualification, encouragement of entrepreneurship and transfer of social technologies. Such initiatives contribute to digital inclusion and the dissemination of practices that promote regional development. The

company also supports cultural events and religious festivities run by the communities and municipalities in its areas of influence, recognizing their relevance in preserving identity, strengthening social ties and valuing the traditions of the territories.



## Health

*Good health promotion as a vector of community well-being*

MRN recognizes that access to health care is essential to promote quality of life and community development. Therefore, it creates actions aimed at prevention, care and expansion of health care for quilombola and riverine populations near its facilities. Among the initiatives are regular care in local health units and support for public health emergencies. All efforts are directed at mitigating the main health problems identified, always respecting the culture and

ways of life in the communities, reinforcing the company's commitment to collective well-being as an integral part of its social responsibility.



## Generation of Employment and Income

*Sustainable economy as*

*a driver of inclusion and prosperity*

MRN supports initiatives that strengthen local production chains, encouraging the supply of goods and services in line with environmental preservation and the appreciation of traditional knowledge. The projects involve technical training and entrepreneurial training, logistical support, access to inputs and structuring of marketing channels. They seek to ensure the sustainability of activities, expand the autonomy of communities and boost regional socio-economic development,

focusing on producing food, handicrafts and other items compatible with the local ecosystem.



## Institutional Strengthening

*Community autonomy through the promotion of local organizations*

Institutional strengthening is a fundamental axis in MRN's social strategy, aimed at reinforcing community associations and representative entities. The company seeks to stimulate organizational development, improve participatory management and promote community autonomy. The idea is to enable the communities to conduct their own development processes in a consistent, structured manner. This initiative aims to consolidate a more strengthened social base, capable of representing their interests and expanding their capacity for articulation and decision-making.

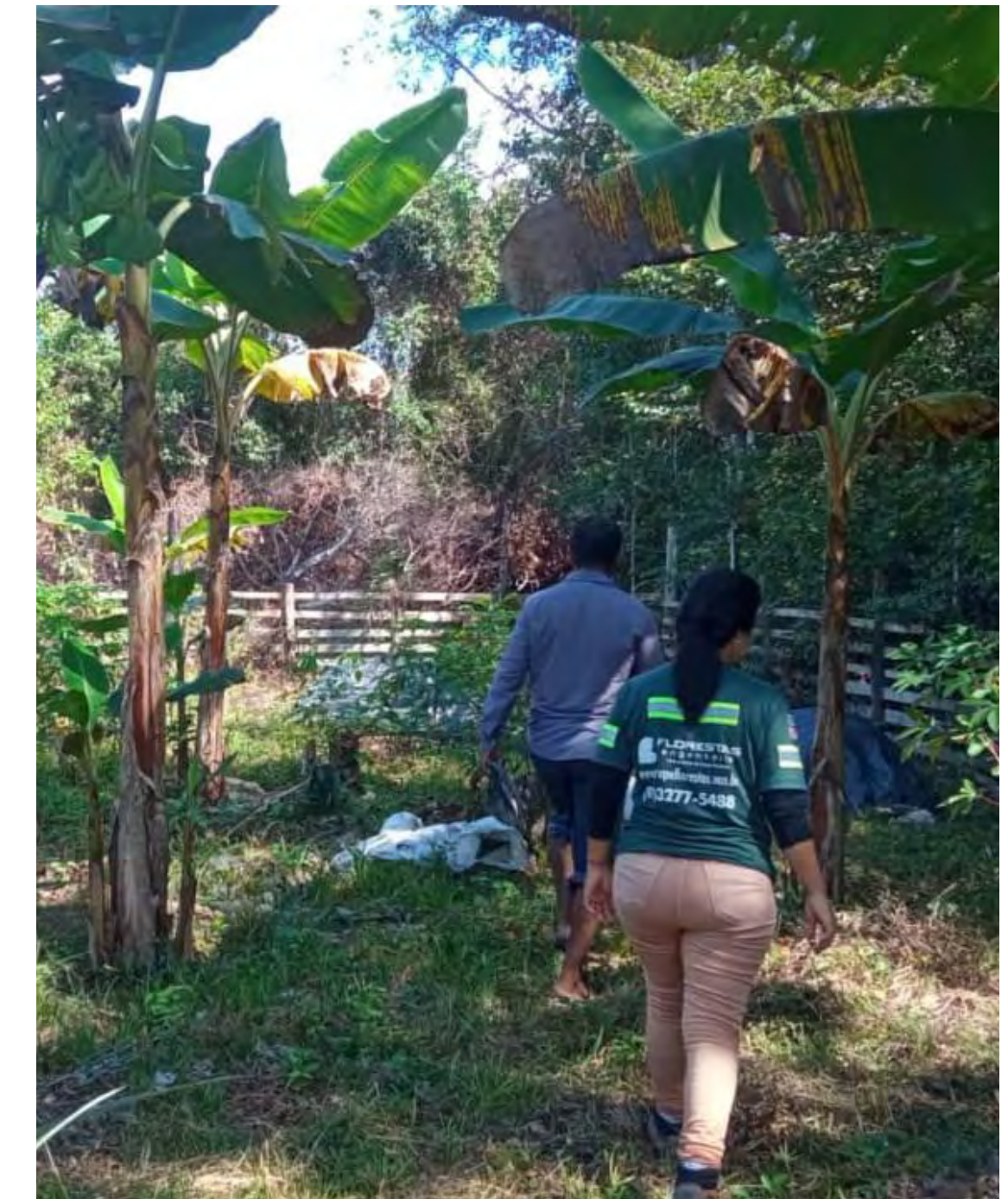
## Social Investments

In 2024, MRN invested R\$ 42,168,414 in infrastructure initiatives, services and social projects for quilombola, riverine, rural and urban communities in the Oriximiná, Terra Santa and Faro municipalities. Of this total, R\$ 23.3 million was invested in projects and actions without direct correlation with MRN's socio-environmental conditions.

These investments were based on the company's investment guidelines, which prioritized the most sensitive demands of the regions served. In addition, a complete review of the processes involving donations, partnerships and sponsorships was conducted, which aimed to increase the accuracy and social impact of these investments. In 2024, the main voluntary investments were:

<p><b>Community infrastructure</b></p>	<p>Construction and contribution of resources for community buildings in:</p> <ul style="list-style-type: none"> <li>• Quilombola Territory Boa Vista and Saracá Community, Sapucuá Agroextractivist Settlement Project (PAE) (Oriximiná)</li> <li>• Chuedá, Paraíso and Nascimento (Terra Santa -- Holy Land) Communities</li> </ul>
<p><b>Support for public services</b></p>	<ul style="list-style-type: none"> <li>• Renovation and recertification of 7 water supply microsystems at PAE Sapucuá-Trombetas (Oriximiná)</li> <li>• Improvements in infrastructure for the supply of electricity and access to drinking water in Quilombo Boa Vista (Oriximiná)</li> <li>• Installation of water microsystems in the Lago do Batata (Oriximiná) communities</li> </ul>
<p><b>Improvements in transportation and access</b></p>	<ul style="list-style-type: none"> <li>• Highway PA-441 (Porto Trombetas-Terra Santa) recovery works</li> <li>• Quilombo Boa Vista Channel dredging (facilitating river traffic)</li> <li>• Donation of a four-wheel-drive (jerico) vehicle for internal transport in Quilombo Boa Vista</li> </ul>
<p><b>Emergency support during the drought</b></p>	<ul style="list-style-type: none"> <li>• 6,000 liters of drinking water distributed</li> <li>• Delivery of food baskets to impacted communities</li> </ul>

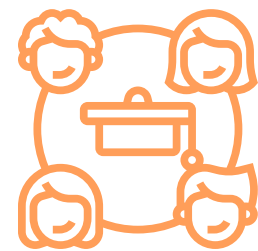
**More than R\$ 23 million invested to strengthen quilombola and riverine communities.**



*Sustainable development projects for communities in the Lago Maria Pixi region.*

## Amazon Education Project

Held in partnership with the Interstate Social Studies Center (CESI), the Amazon Education Project offers basic education and professional qualification to quilombola and riverine communities in the Oriximiná, Terra Santa and Faro municipalities. The initiative recognizes education as an essential instrument of social transformation, capable of fostering individual development, expanding opportunities, strengthening citizenship and promoting social inclusion, contributing directly to local development in a sustainable way.



**231 students** participated in **eight courses**, including Professional Qualification, Free Courses, and Education Advancement

**18 communities** involved in the Oriximiná, Terra Santa and Faro municipalities

Investment, in 2024, **R\$ 496.2 thousand**

### THREE AREAS OF FOCUS:



**Education Advancement:** Prepares students for the **National Certification of Youth and Adult Skills Examination (Encceja)**. This is intended for **students and/or workers who have not completed elementary school and high school**.



**Professional Training and Qualification** Empowers regional residents for employment opportunities at MRN or in local businesses.



**Free Courses:** It offers training for professionals interested in starting their own businesses. Objective: to generate income autonomously.

## Basic Education Support Program

The Basic Education Support Program (PAEB) reaffirms education as a powerful instrument of social transformation. It guarantees access to quality educational opportunities for Porto Trombetas quilombola and riverine children and adolescents with full scholarship funding through the Team Education System. In addition to tuition, MRN also pays for school and didactic materials, transportation, food and tutoring,

ensuring quality training for students from Elementary School II through High School. The program seeks to promote equity in access to quality education, contributing to the academic and social development of these students. By investing in the training of new generations, the program expands horizons, strengthens self-esteem and lays a solid foundation for building more autonomous life paths, positively impacting quilombola communities and their future.



**122 children** and young people from Elementary School and High School, in 2024



**Territories benefited:** Boa Vista, Alto Trombetas II, Comunidades Batata, Ajudante



**Investment** R\$ 6.2 million

## Higher Education Support Program

The Higher Education Support Program (PAES) serves as an extension of MRN's commitment to basic education, offering support to young people from the quilombola communities of Alto Trombetas I and II and Boa Vista territories who enroll in in-person or distant-learning undergraduate courses. The program grants scholarships and monthly financial aid to ensure that students are able both to enroll and to remain in higher education

courses. As a way to strengthen the bond with their home communities, PAES also offers an annual ticket for scholarship holders to return home during academic vacations. The educational institutions attended by students are located in cities such as Santarém, Manaus, Belém, and Juruti. In addition to supporting higher education courses, MRN also provides assistance to 5 Alto Trombetas II students who study Technical level courses.



**3 Quilombola territories benefited:**  
Boa Vista,  
Alto Trombetas I and  
Alto Trombetas II



Investment  
**R\$ 391,616.50**



- Scholarship with financial aid and vacation ticket
- 55 scholarships for students enrolled in various undergraduate courses
- 32 Boa Vista students
- 12 Alto Trombetas I students
- 11 Alto Trombetas II students

**“Olá (Hello). "My name is Kathe de Jesus Santos, I am 23 years old, and I have a recent degree in Pedagogy from the Western Pará Federal University (UPOPA). Raised by my grandparents, I am the second granddaughter to complete Higher Education. Since I was a little girl, I have always strived to study in order to make big dreams come true, and I want to give my sincere thanks to Mineração Rio do Norte's Higher Education Support Program (PAES) for helping to make one of those dreams come true. Leaving home, being away from family, and facing new challenges is not an easy task, especially when it comes to finances. Most of us quilombola students do not have families with many resources, which makes it difficult to remain at the University. Thus, the program was essential for my stability during the academic path, paying for several expenses with the resources that were allocated. I am grateful to the program for all its assistance and for allowing black, quilombola and vulnerable people to seek better opportunities and, consequently, realize great dreams.”**

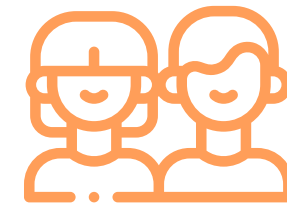
**Kathe de Jesus Santos.** Former PAES scholarship holder, quilombola of the Boa Vista Community. She has a Pedagogy degree and is currently a Development and Inclusion Assistant at the Porto Trombetas Colégio Equipe School.

## Encouraged projects

In 2024, due to the absence of taxable income, it was not possible to allocate resources via tax incentives, such as via the Rouanet Law, the Sports Incentive Law, and the Childhood and Adolescence Fund. Nevertheless, reaffirming its commitment to the social development of municipalities, MRN ensured the continuity of important initiatives through direct investment with its own resources. Initiatives such as the Maré do Amanhã Orchestra and Sports in the City (Esporte na Cidade) continued to remain active with investments from the company. In addition, MRN made contributions to the Defense of the Rights of Children and Adolescents Councils in the Terra Santa, Óbidos and Faro municipalities, reinforcing institutional support for the protection and promotion of children's rights.

### Sports in the City

The Sports in the City Project, coordinated



**300** children and adolescents benefited



About **100 scholarship holders** from Porto Trombetas's Colégio Equipe, **250 participants** from Terra Santa, and **50 participants** from Faro



Investment of **R\$ 190,952.53**

by the De Peito Aberto (With An Open Heart) NGO with support from MRN, offers classes in various sports, promoting the physical and cultural development of the participants. (De Peito Aberto is committed to social, sports, and educational projects to promote positive change in communities across Brazil.) In addition to practical activities, students participate in educational lectures on relevant social topics, such as citizenship, respect, inclusion and violence prevention. The project also conducts continuous monitoring of the academic performance of students to ensure that sports go hand in hand with education, contributing to the integral training of the young people involved.



Students from the Faro municipality participated in the Sports in the City project.

## Maré do Amanhã Orchestra

In 2024, classical music and playing instruments continued to be part of the lives of children and adolescents in the region's communities, promoting not only artistic development but also values such as discipline, teamwork and the self-esteem of the participants. Through socio-educational initiatives, these young people had access to new opportunities for cultural expression and citizen training, strengthening ties with the school, family and community. The action reinforces the company's commitment to promoting social inclusion through art and education.



**79** children and adolescents benefited



**2** service centers: Porto Trombetas and Lago do Ajudante Community



Investment of **R\$ 214,450.59**

## Income generation programs

MRN invests in initiatives that combine environmental conservation and socio-cultural appreciation with the generation of work and income in the communities surrounding its operation as part of its strategy to leave a legacy in the territory. Farmers receive training and technical assistance for planting and cultivating Agroforestry Systems (AFSs), as well as support with inputs and equipment and seed sales. MRN also maintains projects to strengthen family farming and the breeding of small animals with training, technical and infrastructure monitoring.

In 2024, two projects stood out in this pillar: Redes Araticum Native Seeds and Sapucuá Amazon Seeds, and the Maria Pixi project.



*Seed Collector Network Project.*

## Araticum Native Seeds and Sapucuá Amazon Seeds Networks

The project contributes to sustainability, productive inclusion and food security by supporting the structuring of a native seed collection network based on principles of fair trade, traceability and broad genetic diversity. The initiative strengthens the large-scale forest restoration chain while generating income and valuing the traditional knowledge of participating communities, fostering responsible use of natural resources and supporting ecosystem balance.

### 2024 Highlights:

- 96 collectors trained in 4 training modules, with topics such as governance, pricing, quality and negotiation.
- 2 communities involved: Boa Nova and Saracá, in the Sapucuá Agroextractivist Settlement Project (PAE).
- 73 families participated, generating income based on traditional knowledge about the forest.

### Maria Pixi Project

Focusing on promoting sustainable production systems and the enhancement of local biodiversity, the project integrates several initiatives aimed at the socio-environmental development of communities. Initiatives include Agroforestry Systems (SAFs), Breeding, Mowing and Forestry System (CRF), and Community-Based Tourism (TBC). These initiatives seek to reconcile productive inclusion, food security and environmental conservation, promoting productive practices aligned with the responsible use of natural resources and strengthening the local economy.

2024 Highlights:

- 4 participating Oriximiná communities.
- 73 families registered and 29 unregistered, totaling 408 beneficiaries in total.
- 93 technical visits were carried out, with significant technical monitoring in the field.
- 101 young people and women participated,

showing the protagonism of historically less appreciated audiences.

- 8 training sessions were conducted, including courses and workshops.
- 56 families chose food production diversification.
- 33 hectares under sustainable management with SAFs and CRF systems.
- 48 families adopted agroecological technologies, such as composting, and the use of biofertilizers and natural pesticides.
- 22 families grow Creole crops, such as corn, beans and cassava.
- 15 families generate income by making handicrafts, such as hammocks, napkins and biojewelry, using local inputs.

MRN's income generation programs strengthen sustainable practices, generate positive socio-environmental impacts and expand the economic autonomy of communities. Emphasis is on involving women and young people and adopting nature-based solutions.

### Medical and hospital care for riverine dwellers and quilombolas

MRN offers hospital care through the Porto Trombetas Hospital (HPTR) and logistical support to communities to also enable community access to health services in other specialized centers. It also performs regular dental care in three quilombola territories, reaching 16 communities and approximately 1,000 families.



total of  
**36,808**  
medical care for riverine dwellers and quilombolas

Consultations (Vaccines, Medical Consultations and Dentistry)	7,557
Emergency Care (Urgency/Emergency)	4,936
Surgeries	144
Physical Therapy Sessions	60
Ultrasounds	369
Endoscopies	15
Hospitalizations	373
X-Rays	1,013
Clinical Analyses	22,341

## Social partnerships in the value chain

MRN recognizes that social responsibility initiatives become more robust and effective when they involve actors in its value chain. Therefore, in 2024, the company expanded partnerships with a social focus with some main suppliers to technically train community members. As a result of this collaborative action, 51 communities were involved, with 79 people directly participating.

- **KOMATSU** - 38 young people: 26 were enrolled in the Equipment Maintenance Mechanic courses of the Boa Vista and Batata communities in the Oriximiná municipality, and the Aibi community (Faro municipality); and 12 in the Equipment Operator (Beginner) courses held at the Boa Vista, Batata, Sapucá and Auxante communities in Oriximiná.
- **SCANIA** – 21 young people participated in the Introduction to Mechanics courses in the Alto Trombetas 1 and Batata communities in the Oriximiná municipality.
- **SOTREQ** – 20 young people participated in the Basic Mechanics courses in the Nascimento, Jamari, Alema, Paraíso, Serra and Cabeceira dos Cláudios communities in the Terra Santa municipality. Some 15 computers were donated, 10 of which went to the Association of Residents and Workers Organizations of Lower Amazonas (AOMTBAM), which will be used in the development of courses aimed at digital inclusion. In addition, five computers were sent to community associations, contributing to the improvement of equipment and support for their administrative and educational activities.
- **WLM** – Through the Treina Mais (More Training) Project, courses were conducted on basic electrical knowledge applied to automotive systems, basic methodology applied to automotive systems, basic vehicle mechanics, and preventive maintenance of Scania trucks. There were 21 young participants from the Lago do Batata and Alto Trombetas 1 communities; 10 women and 11 men who are now able to enter the labor market.

All courses prepared young people for the labor market, qualifying them for possible opportunities to join the staffs of MRN or its suppliers, according to the existing demand and availability of vacancies.



*Komatsu Graduation: certification in Mining Equipment Maintenance Mechanics course.*

## Licensing and Socioenvironmental Management

The socioenvironmental programs and projects linked to the conditions are a significant part of MRN's investments and total more than R\$ 18 million invested in 2024. The management of these programs, in addition to ensuring the company's socioenvironmental compliance, promotes local development with communities and strengthens the region, helping to maintain relationships of trust between the company and communities by offsetting the impacts resulting from its operation.

In addition to the topics prioritized among voluntary social responsibility projects, the conditions also cover the area of safety and the environment. All programs associated with MRN's regulatory conditions are grouped under the Socioenvironmental Education Program (PES).

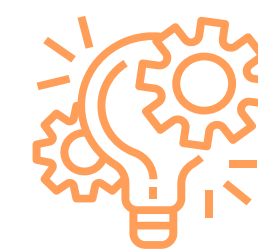
### Socioenvironmental Education Program (PES)

The Socioenvironmental Education Program (PES) is comprised of 13 projects developed in the Oriximiná and Terra Santa municipalities, in the western region of Pará. Its projects follow a community-collaborative approach, with local residents directly involved in planning and implementation. Its central objective is to train citizens to be aware of the complex interrelationships between society and the environment, considering social, economic, political, cultural, ethical and legal aspects. With this understanding, the program encourages environmental preservation, responsible use of natural resources, cultural diversity, stronger citizenship and better living conditions in the areas served.

The projects cover a wide range of integrated actions: training (courses, workshops and lectures), environmental education, technical assistance for productive activities, socioenvironmental monitoring, health care (including medical care, nursing consultations and endemic disease control) and water supply quality. Also noteworthy is the stimulus to generate income in a sustainable manner, always respecting and valuing local knowledge and traditions.

Beyond mitigating measures, the PES seeks to build relationships of trust and proximity with the communities. Collective dialogue processes help transform daily life in local communities by strengthening social ties and fostering more harmonious coexistence with the environment.

PES carried out 1,952 activities in 2024 through its projects, reaching approximately 12,723 people across various rural and riverine and quilombola communities along the Trombetas River and its lakes in the municipalities of Oriximiná and Terra Santa.



**13**  
socioenvironmental  
projects



**1,952**  
activities



More than  
**12,723**  
participations

The scopes and main results of each of the 13 projects that comprise the PES are summarized below:

PROJECT	SCOPE	2024 RESULTS
<b>ENVIRONMENTAL AND HERITAGE EDUCATION PROJECT (PEAP)</b>	By providing training in traditional crafts, the initiative fosters income generation and cultural preservation in the quilombola communities at Alto Trombetas II and Boa Vista. It preserves traditional knowledge, strengthens local identity and stimulates community entrepreneurship.	<ul style="list-style-type: none"> <li>• 5 training actions</li> <li>• 100 pieces exhibited at the Porto Trombetas Quilombola Fair</li> <li>• 8 communities</li> <li>• 40 participations</li> </ul>
<b>ENVIRONMENTAL EDUCATION PROJECT (PEA)</b>	It conducts educational initiatives to promote the conscious use of natural resources. In 2024, it featured workshops and a course for training multipliers, generating initiatives such as the production of brooms with PET bottles.	<ul style="list-style-type: none"> <li>• 9 lectures</li> <li>• 56 workshops</li> <li>• 27 communities</li> <li>• 1,481 participations</li> </ul>
<b>BEEKEEPING SUPPORT PROJECT</b>	It trains families from the Terra Santa rural communities in the sustainable management of the <i>Scaptotrigona sp.</i> stingless bee, strengthening the local economy and the preservation of biodiversity.	<ul style="list-style-type: none"> <li>• 41 technical visits</li> <li>• 4 donations of equipment</li> <li>• 4 actions between entrepreneurship workshop, technical management course, lecture, children's scavenger hunt</li> <li>• 4 community</li> <li>• 117 participations</li> </ul>
<b>AGROFORESTRY SYSTEMS PROJECT (AFS)</b>	It promotes rural entrepreneurship and sustainability through technical training and support for the creation of cooperatives. The objective is to improve peoples' lives and raise property values.	<ul style="list-style-type: none"> <li>• 6 courses</li> <li>• 7 workshops</li> <li>• 215 technical visits</li> <li>• 31 PPE kits delivered</li> <li>• 5 communities</li> <li>• 43 families</li> <li>• 291 participations</li> </ul>

PROJECT	SCOPE	2024 RESULTS
<b>FAMILY FARMING SUPPORT PROJECT</b>	Support riverine farmers in Oriximiná with training to improve cassava cultivation, stimulate productive diversification and generate income.	<ul style="list-style-type: none"> <li>• 2 courses</li> <li>• 1 workshop</li> <li>• 126 technical visits</li> <li>• 16 PPE kits delivered</li> <li>• Best Farinha Flour Award at the Oriximiná Municipality's 2nd Cassava Festival</li> <li>• 1 community</li> <li>• 18 families</li> <li>• 43 participations</li> </ul>
<b>QUILOMBO PROJECT</b>	Provides medical care, nursing, medicines and educational actions to the Alto Trombetas quilombola communities, with monthly visits and a focus on preventive health. <a href="#">More information here</a>	<ul style="list-style-type: none"> <li>• 12 campaigns in the year (monthly follow-up)</li> <li>• 1,832 medical consultations</li> <li>• 3,335 nursing consultations</li> <li>• 89,270 drugs distributed</li> <li>• 3,522 exams performed</li> <li>• 9 topics covered in lectures with 396 participants</li> <li>• 15 communities</li> </ul>
<b>MICROSYSTEMS AND ARTESIAN WELLS PROJECT</b>	Deploys solar-powered drinking water harvesting systems in the Lago Batata communities, ensuring continuous access to water and reduced environmental impacts.	<ul style="list-style-type: none"> <li>• 5 complete microsystems</li> <li>• 124 home connections</li> <li>• 2 communities</li> </ul>
<b>COPAÍBA NATIVE POPULATIONS MANAGEMENT PROJECT</b>	It promotes the conservation of copaibeira and sustainable oil-resin production in partnership with quilombola communities through forest inventory and technical training.	There was no activity in 2024 due to a stoppage request by the Alto Trombetas II territory.
<b>FISH FARMING SUPPORT PROJECT</b>	Trains residents to raise tambaqui fish with management practices adapted to the Amazonian context, combining local and scientific knowledge with support from the Federal University of Western Pará (UFOPA).	<ul style="list-style-type: none"> <li>• 42 technical visits</li> <li>• Delivery of inputs</li> <li>• Water quality collection and analysis</li> <li>• 6 communities</li> <li>• 7 families</li> </ul>

PROJECT	SCOPE	2024 RESULTS
<p><b>MALARIA CONTROL PROJECT</b></p>	<p>Pest control for Trombetas River communities, orients families regarding disease prevention (such as malaria and dengue).</p>	<ul style="list-style-type: none"> <li>• 1,210 properties visited</li> <li>• 4 educational lectures</li> <li>• 3 malaria cases identified and referred for treatment</li> <li>• 4 communities</li> <li>• 74 participations</li> </ul>
<p><b>PÉ-DE-PINCHA PROJECT</b></p>	<p>Developed by the Federal University of Manaus in 1999, it promotes the conservation of Amazonian turtles with community management, training and monitoring in Amazonas and Pará regions, even while facing logistical challenges.</p>	<ul style="list-style-type: none"> <li>• 75 meetings, lectures and training sessions with 1,156 participants throughout the region</li> <li>• 3,751 turtle nests protected in the communities</li> <li>• 111,576 turtle eggs were collected</li> <li>• 60,108 chelonian turtles released into the wild</li> <li>• 2,752 community members involved</li> </ul>
<p><b>LEME PROJECT</b></p>	<p>It makes the Oriximiná riverine community aware of the adoption of precautions during river navigation to prevent fires on the banks of rivers and lakes. Thus, it creates a safer environment on the rivers, reducing risks and preserving the integrity of the region's population and vessels.</p>	<ul style="list-style-type: none"> <li>• 4 Navigation Safety Training</li> <li>• 4 Workshops / Navigational and Environmental Safety</li> <li>• 4 Lectures held on Navigational and Environmental Safety</li> <li>• 10 Safety Blitz</li> <li>• 1,518 people involved</li> </ul>
<p><b>COMMUNICATIONS PROGRAM</b></p>	<p>The goal is to relate clearly to the audiences. In cooperation with the Communities, the company develops clear, direct and accessible language communications through various communications channels.</p>	<ul style="list-style-type: none"> <li>• 45 social media posts that reach of 103,334 people</li> <li>• 50 press releases</li> <li>• 5 editions (15 publications) of the Jornal Konduri (Newspaper) delivered to communities, reaching 2,310 people</li> <li>• 71 "Konduri está no Rio" (Konduri culture is on the River) card with audio, sent to the WhatsApp groups of regional community leaders (Konduri culture, which reached their apex in the 7th century and met their decline in the 15th century, and inhabited the region between the Trombetas and Nhamundá rivers, in Pará. Although this culture kept an intense contact with the Santarém culture, their artistic production developed unique features. )</li> <li>• 10 Corporate Whatsapp campaigns</li> </ul>



Quilombo  
Project Boat.

More than

**8.6  
thousand**

consultations and  
examinations provided,  
and more than **89  
thousand medications**  
distributed

## Quilombo Project

The Quilombo Project is an important health care offering in the region where MRN operates. Its primary objective is to promote access to preventive and curative health for quilombola communities in the Alto Trombetas territories. The project offers basic medical care, nursing consultations, distribution of medicines and educational lectures on health-related topics. It also offers environmental education-related presentations. The communities receive monthly visits through river expeditions conducted by a health team (doctor, nurses and nursing technicians), who provide medical consultations and conduct awareness and educational activities on topics related to health and the environment. Medical assistance services are provided to families, including consultations and referrals for laboratory tests, medication delivery, and social worker care. Also, emergency care is available.

## Human Rights

For MRN, respect for human rights is a non-negotiable value and guides its actions throughout its area of influence. The company orients its conduct through its normative Guidelines for Human Rights, a document approved by the Sustainability Board in 2024, with a review scheduled every two years or whenever necessary. These guidelines are based on the United Nations Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights, and the ILO – International Labour Organization – Declaration on Fundamental Principles and Rights at Work, reflecting internationally recognized human rights and labor standards. Its application extends to all activities of the company and its business relationships. It is mandatory for company employees and

contract workers, suppliers, partners, customers and communities with which MRN relates — with special attention to groups in situations of vulnerability or greater exposure to risks, such as quilombola and riverine communities.

Under this guideline, MRN adopts strict criteria in the management of its supply chain, focusing on the prevention of human rights violations, especially related to child labor, degrading work or conditions analogous to slavery. All contracts signed with suppliers include specific clauses that require an active commitment to the eradication of these practices. During the registration and approval process, suppliers receive the MRN Code of Conduct and the Integrated Management Policy, with clear guidelines

on the prohibition of child and forced labor, and must complete a questionnaire that includes a formal declaration affirming compliance with human rights and labor legislation — a decisive criterion for the business relations continuity. As a result of this process, the company assesses that the risks related to these practices in its supply chain are very low, and there are currently no suppliers classified as high risk.

Internally, the MRN Labor Relations Manual consolidates guidelines against any form of forced labor, abusive practices or situations of exploitation. Upon admission to work for MRN, employees and leaders receive formal guidance on unacceptable conduct, including threatening, abusive, or discriminatory

behavior, such as gestures, inappropriate language and moral or sexual harassment. These actions are reinforced by continuous training and awareness-raising programs, which contribute to a safe, dignified and fundamental rights-compliant work environment. During 2024, training, conversation circles and other engagement actions were conducted aimed at disseminating these guidelines at all company levels and among its strategic audiences.

In 2024, as part of its preventive approach and responsible risk management, the company conducted a new round of Human Rights Due Diligence (HRD) with the support of an independent technical audit. The evaluation included interviews with several groups of rights holders



From left to right: Sâmea Cristina, Hernildo Reis, Jocinaldo Sena, Antonio Carlos and Raimundo Gilson (Maintenance professionals).

— direct and contract employees, residents of the Vila de Porto Trombetas, local communities, public agencies, suppliers and customers. It analyzed critical topics such as decent work; occupational health and safety; freedom of association and collective bargaining; privacy and data protection; diversity, equity and inclusion; quality of life for neighboring communities; and involuntary displacement. The risks identified were integrated into the corporate risk matrix, with specific action plans, mitigation measures and monthly monitoring.

MRN recognizes that even with the use of best practices, no company is immune to risks that may affect fundamental rights. Therefore, it adopts a system for identifying,

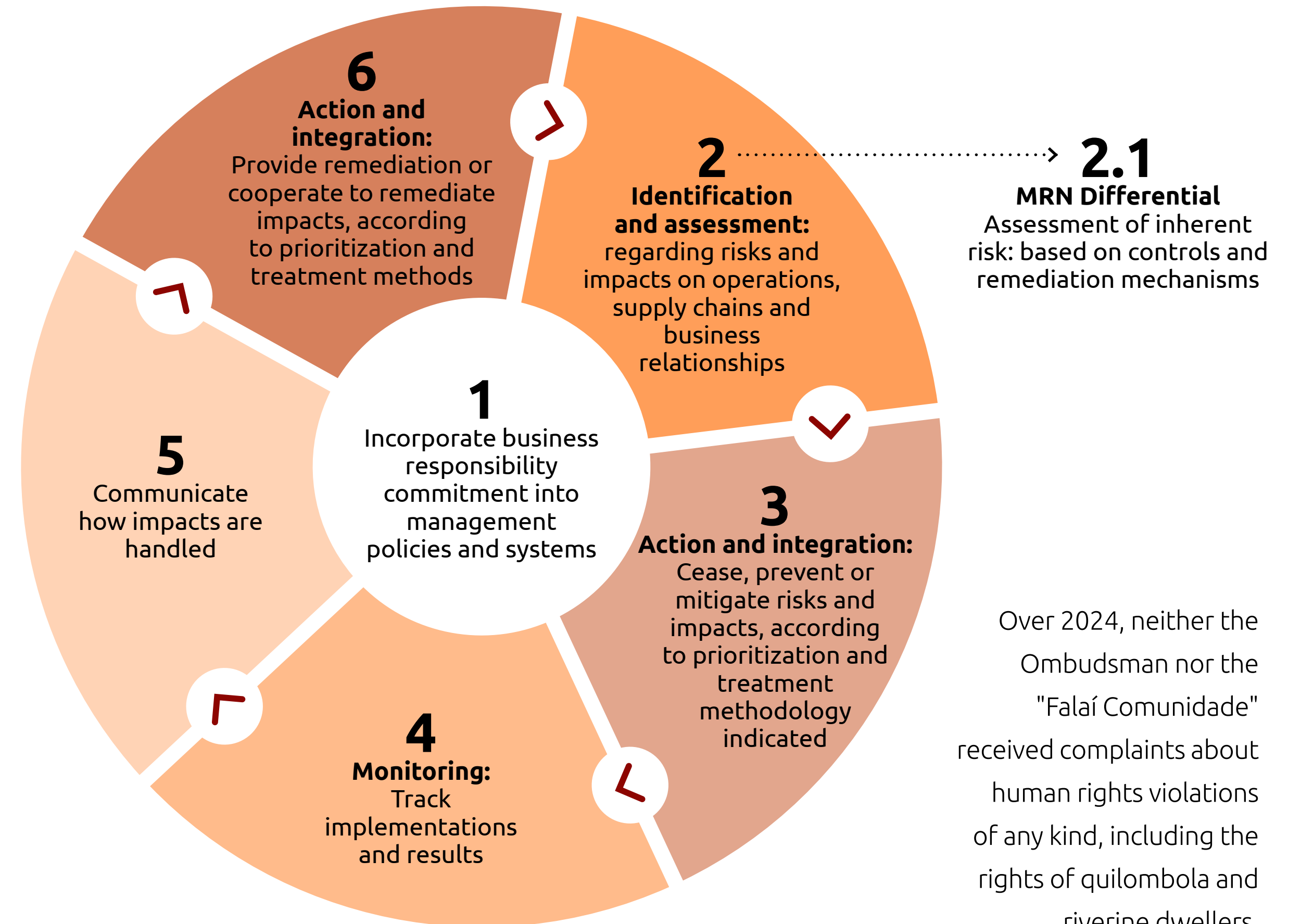
evaluating, prioritizing, treating and monitoring these potential or real risks. When necessary, it develops or cooperates with legitimate remediation actions, with proportional, diligent responses accompanied by indicators of effectiveness. As listening instruments, the company offers its Ombudsman or "Falaí Comunidade" (Speak Up Community) channels. They are accessible to all audiences and can be used to register complaints, grievances and reports about possible human rights violations.

This approach strengthens MRN's ethical and responsible practices and reaffirms its commitment to the promotion, respect and remediation of human rights throughout its entire value chain.

## HUMAN RIGHTS DUE DILIGENCE



## DUE DILIGENCE PROCESS



Source: Adapted from OECD, "OECD Due Diligence Guide for Responsible Business Conduct", p. 21.



# 04

## Governance

*Renata Godinho, Ecivaldo de Jesus and Priscila de Jesus (professionals with the (Portas Abertas) Open Doors Program).*

## Corporate Governance

Strong corporate governance has underpinned MRN's stability and resilience over more than 45 years of operations. In an increasingly challenging landscape for organizations operating in strategic and sensitive sectors such as mining, adopting and continuously improving governance practices is essential to ensure business continuity, protect stakeholder interests and ensure compliance with ethical and legal standards.

MRN adopts a corporate governance model aligned with its legal structure as a joint venture, and international standards, guided by the principles of transparency, equity, accountability and corporate responsibility. This commitment is reflected in adherence to the *Aluminium*

*Stewardship Initiative (ASI)* and attainment of certifications in the Performance and Chain of Custody Standards.

**More than a set of structures and processes, corporate governance translates into management mechanisms, such as the Integrated Management Policy, defined by the company's Senior Leadership.** This policy incorporates environmental, social, health, safety, governance and quality criteria, in line with the values of integrity, respect for human rights and socioenvironmental responsibility. Its guidelines are broken down into measurable objectives, which guide the company's strategic planning and performance. Compliance with these commitments is monitored on an ongoing

basis through periodic audits and goal-tracking systems. Thus, MRN ensures not only transparency and control of internal processes but also the generation of shared value with its stakeholders.

MRN's governance structure is comprised of bodies that ensure alignment between the company's organizational objectives and the expectations of its various stakeholders. This model is composed of an active Board of Directors (BoD), advised by topical committees, in addition to a Chief Executive Officer (CEO) and an Executive Board responsible for conducting operations. The structure, its attributions and responsibilities are formally described in the Bylaws and the Shareholders' Agreement, which guide the company's governance.



*Daily inspection moment.*

GLENCORE 45%  
SOUTH32 33%  
RioTinto 22%

Board of Directors

Sustainability and Stakeholder Engagement Strengthening Committee

Financial Committee

Commercial Committee

Risks and Audit Committee

Technical Committee  
*Tailings Committee*

Task Forces  
*West Zone Steering Committee*

CEO

Executive Board

[GRI 2-9]

Sunset at the bauxite loading area in Porto Trombetas.

## Board of Directors

The Board of Directors is MRN's highest corporate governance body, playing a central role in defining the company's strategic guidelines, approving institutional policies and goals, and supervising the Executive Board's performance. Composed of members appointed by the shareholders and who are linked to these companies, the Board acts as a collegiate body, with resolutions based on compliance with the Bylaws, current legislation and industry best practices. Their individual responsibilities and competencies cover economic-financial, operational, institutional and socioenvironmental issues.

The Board holds regular quarterly meetings and may convene special meetings whenever necessary. On these occasions, strategic topics such

as the progress of institutional goals, performance indicators, emerging risks and other matters relevant to the conduct of MRN's business are analyzed. Among the topics regularly monitored by the Board are the environmental licensing process for continuity of operations, the pursuit of new certifications, and the maintenance of existing ones.

To support its decisions, the Board of Directors is supported by the advisory committees, which offer in-depth technical analyses and specialized contributions on specific topics. This support enhances the decision-making process, expands collective knowledge and contributes to the quality of the Board's deliberations.

It is also the responsibility of the Board to appoint Executive Board members,

to whom specific responsibilities are delegated for the implementation of the strategic guidelines and commitments defined by the Board, including those related to responsible business conduct and impact management.

**MRN's Board of Directors is composed of five seats, held by three men and two women, including primary and alternate members.** As provided for in the Bylaws, the Board must have at least three members, each with a two-year term and the opportunity for reelection. The Board chairmanship must be held by a Board member nominated by shareholders who collectively hold more than 50% of the company's common shares, and the nomination must come from at least two shareholders for the election to be considered valid.

The appointment of directors obeys criteria proportional to the shareholding. For each effective director, the Board is allowed to appoint an alternate, who will automatically take over in case of a vacancy. If there is no alternate, the shareholder responsible for the original nomination may appoint a new full Director.

MRN adopts practices that ensure the independence of the Board of Directors and preserve the integrity of the decision-making process. This ensures that Board members can act free from external pressures and conflicts of interest. When any member is in a situation of personal conflict in relation to a certain subject, he/she is expected to abstain from voting. And, in such cases, the shareholder who appointed him/her may appoint an alternate Director to replace him/her in

the resolution. This measure strengthens the legitimacy of the Board's decisions and ensures that the company's interests are managed with transparency and impartiality.

Since the members of the Board of Directors are employees of the shareholder companies and are appointed by those companies, they are not part of the Executive Board nor do they have any employment relationship with MRN. This separation is a central feature of MRN's governance model. These professionals serve as representatives of MRN's shareholder companies and are therefore employed exclusively by the companies that appointed them. As such, both their compensation and performance evaluations are determined and managed by those respective companies. There is no additional compensation paid by MRN

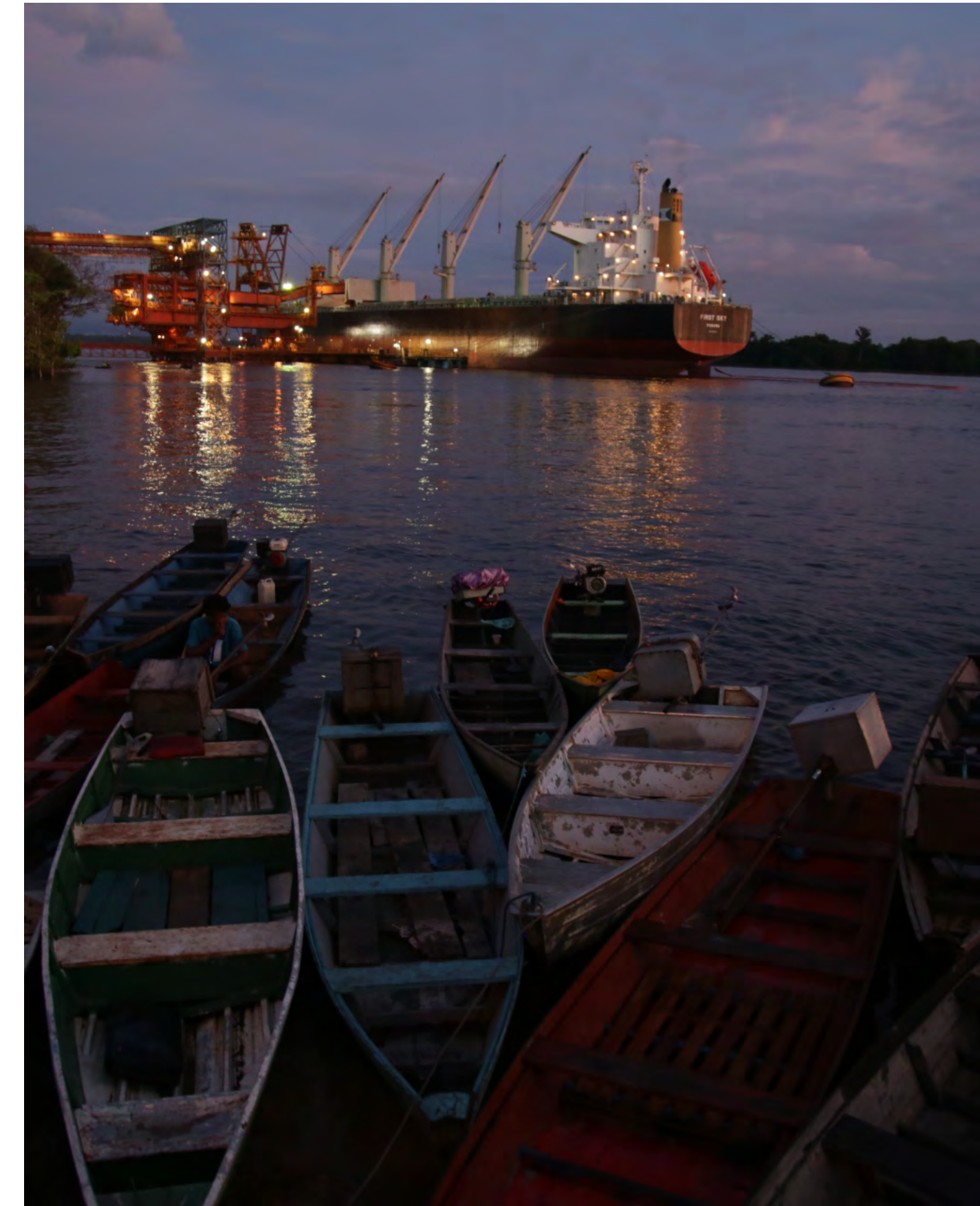
to members of the Board of Directors for their participation in committees or for extraordinary activities. Advisory Committees

The Advisory Committees are composed of at least three members who act in an advice-giving and strategic manner, offering technical support for decision-making. These committees have a multidisciplinary, specialized composition, including members from the Board itself, shareholder companies, as well as invited MRN executives and specialists. The appointment of the members is made by the shareholders, according to their shareholding percentages.

The committees have the autonomy to seek technical support from experts and external consultants whenever necessary, which contributes to

informed, impartial decisions in line with best governance practices. The flow of information between the committees and the Board of Directors is continuous and direct and may occur either at the request of the Board itself or at the initiative of the committees. Although there is no formal rule regarding the frequency of reporting, the consolidated practice provides for permanent communication, according to the criticality of the topics addressed.

The Advisory Committees meet frequently, ranging from bimonthly to biannually, depending on the topic. They provide analyses and technical reports that strengthen the company's governance. This ensures that strategic issues are addressed in depth and with specialized knowledge. It is noteworthy that some professionals participate on more than one committee.



*View of the port during bauxite loading (shiploader).*

## ADVISORY COMMITTEES

**Sustainability and Stakeholder Engagement Strengthening Committee:**

evaluates the robustness of the company's systems, plans and policies focused on sustainability, governance, environmental licensing, relationships with communities and other stakeholders.

**Composition:**  
3 members  
4 alternates

**Commercial Committee:**  
oversees MRN's business operations.

**Composition:**  
3 members  
2 alternates

**Risks and Audit Committee:**

deals with strategic topics related to risk management, compliance and auditing.

**Composition:**  
3 members  
3 alternates  
1 independent

**Financial Committee:**  
oversees MRN's financial and economic matters.

**Composition:**  
3 members  
4 alternates

**Technical Committee:**  
technically advises the company's operations, focusing on robustness, efficiency and operational safety.

**Composition:**  
3 members  
5 alternates

**Tailings Committee:**  
supervises the management of the tailings, as well as their remediation, rehabilitation, and/or decommissioning.

**Composition:**  
3 members  
5 alternates

**West Zone Steering Committee Task Force:**  
task forces are interim committees that are organized to address specific objectives. In 2024, there was a committee focused on monitoring strategic and operational issues related to the development of the West Zone.

**Composition:**  
3 members  
3 alternates

In addition to the Advisory Committees, there are also working groups that include the participation of shareholder representatives. In addition, some MRN representatives participate in topical committees in relevant institutions in the sector.



Professionals in the Porto Electrical and Mechanical Maintenance area (from left to right: Antonio de Sousa Pantoja, Carlos Alberto, Mauro Ricardo, João Lacerda Cardoso and Clemer Campelo).

## Executive Board

MRN's Executive Board is the body responsible for conducting the company's operational activities, implementing corporate policies and managing economic, environmental and social impacts. Appointed by the Board of Directors, the Executive Board is composed of at least four members: the Chief Executive Officer (CEO), the Chief Operating Officer (COO), the Chief Administration and Finance Officer (CFO) and the Chief Sustainability and *Health, Safety, Environment and Community* (HSEC) Officer. Each director has defined duties and works in alignment with the technical areas under his/her responsibility.

The terms may be renewed according to the company's needs. Both the appointment and dismissal of any Executive Board member are subject to the prior approval of the directors

representing more than 75% of MRN's voting capital. The Chief Executive Officer, in addition to legally representing the company, is responsible for coordinating the actions of other officers and chairing the Executive Board meetings.

In addition to day-to-day MRN management, the Executive Board also participates in the company's strategic formulation planning, including the approval and updating of the purpose, mission, vision, values and goals, in systematic cycles of strategic planning carried out on demand by the Executive Board. This information is subsequently presented to the Board of Directors and communicated internally.

The Executive Board directors are

## MRN's Executive Board plays a central role in the company's corporate governance, articulating organizational strategy with operational execution.

hired in accordance with the Labor Law Consolidation (CLT) regulations, with all termination rights guaranteed. Compensation is composed of a fixed portion, based on the function and responsibilities of the position, and a variable portion, linked to individual and organizational performance objectives. The variable compensation system considers annual goals defined in the Corporate Goals Panel and includes bonuses and long-term instruments (LTIP), with a focus on the company's continuous performance.

In carrying out its functions, the Executive Board is responsible for ensuring the integration of responsible business conduct commitments into MRN's strategies.

This is managed through normative instruments — such as the Ethical Conduct Code, Anti-Corruption Policies, Human Rights Guidelines, among others. It includes management processes for risk assessments, third-party due diligence, contractual definition of responsibilities, control and audit mechanisms, continuous training and performance management with goals related to sustainability, safety and integrity. More information in the “Ethics, Transparency and Communication” section.

MRN's Executive Board plays a central role in the company's corporate governance, articulating organizational strategy with operational execution.



## Impact Management

Impact management is a recurring agenda item in the meetings of the Board of Directors. MRN delegates responsibilities through the Executive Board and the Advisory Committees. Among these, the Sustainability and Stakeholder Relationship Support Committee stands out for its role in advising the Board on issues related to sustainability. This committee periodically reviews the risks and opportunities related to environmental, social and governance issues. It presents technical reports to the Board with recommendations for improvements and strategies to mitigate negative impacts. Within the scope of the Executive Board, these responsibilities are also deployed among specialized technical areas. In addition, the Audit and Risk, Technical, and Financial and Commercial Committees have attributions that eventually involve the monitoring of significant impacts.

The access and reporting of crucial concerns, both to the committees and to the Board, may occur whenever necessary, depending on the criticality of the matters on the agenda. Impact management is also closely associated with the activities of the Performance, Risk and Internal Control Management, reporting directly to the company's CFO, and responsible for structuring and monitoring the corporate risk assessment and mitigation processes, with a direct interface with the Board through the committees.

*Meeting of the Central Risk Management Committee.*

# Risk Management

Risk management stands as a core pillar supporting MRN’s sustainability and operational resilience. Integrated into the organizational strategy and culture, it enables MRN to anticipate events, strengthen decision-making and protect stakeholder interests.

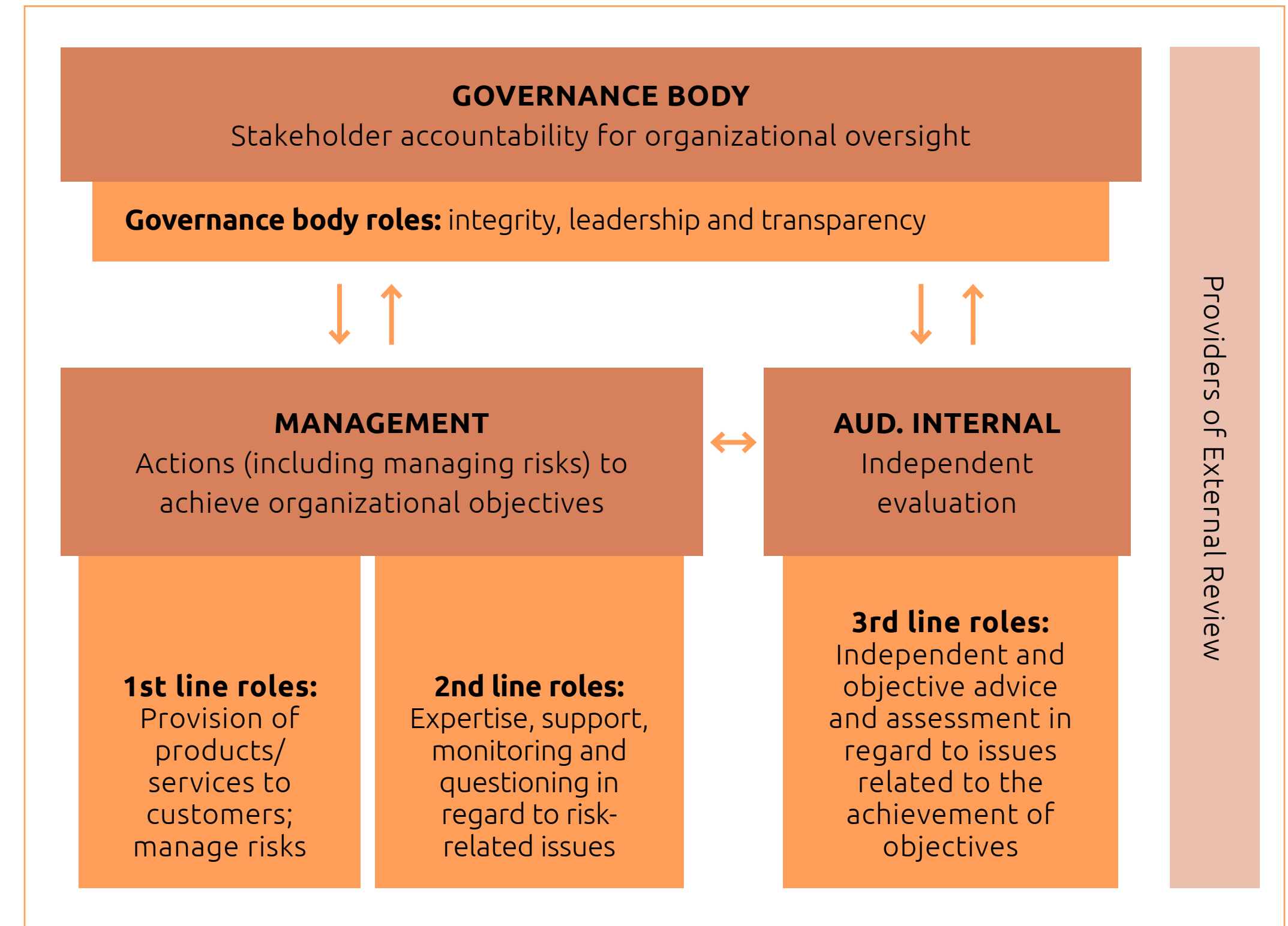
MRN adopts an approach to risk management that is guided by best practices in corporate governance and legal compliance. Its Risk Management and Controls Manual is aligned with internationally recognized references, such as NBR ISO 31000 (Risk Management), NBR ISO 14001 (Environmental Management) and NBR ISO 45001 (Occupational Health and Safety), in addition to legislation such as the General Data Protection Law (LGPD), Anti-Corruption Law and Government-Owned Companies Law. This framework complements the *Enterprise Risk Management*

(ERM) and Internal Control Policy frameworks and the guidelines of the Brazilian Corporate Governance Institute (IBGC) and the Brazilian Business Law and Ethics Institute (IBDEE).

The governance of the process follows the Three Lines Model, as proposed by *The Institute of Internal Auditors (IIA)*:

- **First Line:** risk managers and committees are responsible for identifying and mitigating risks in their respective processes;
- **Second Line:** specialized technical areas offer support, develop policies and monitor the effectiveness of internal controls;
- **Third Line:** Internal Audit, with independent performance, evaluates the effectiveness of governance, reporting directly to the Audit Committee and the Board of Directors.

## THE INSTITUTE OF INTERNAL AUDITORS (IIA) THREE LINES MODEL



**Key:** ↓ Accountability, reporting      ↑ Delegate, guide, offer resources, supervise      ↔ Alignment, communication, coordination, collaboration

*Model adapted from the three lines of The Institute of Internal Auditors (IIA)*

This structure (previous page) ensures clarity of responsibilities, transparency and robust decision-making processes.

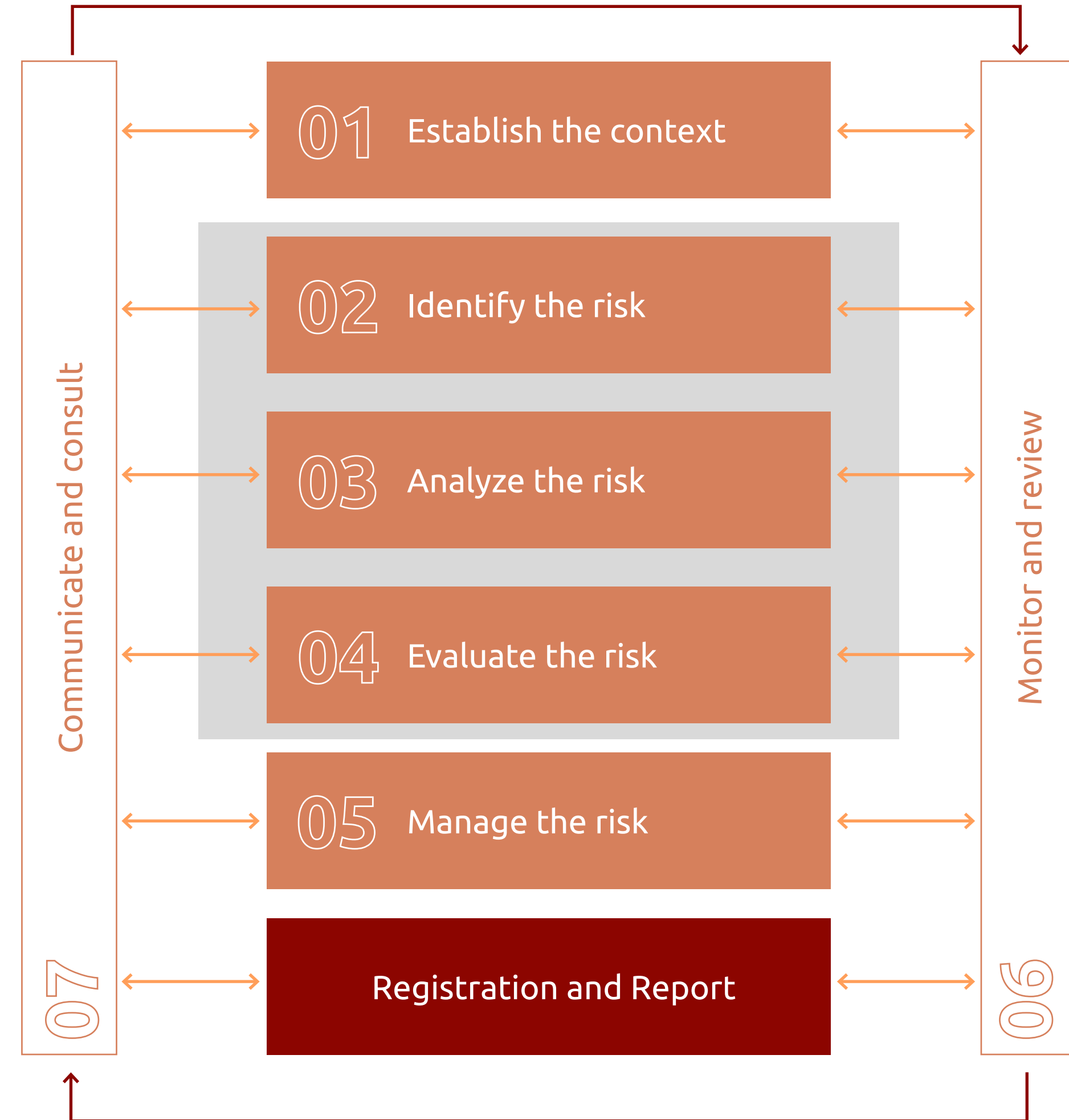
MRN's risk management process is structured on the company's context and has interdependent steps, which ensure a broad and preventive view of the main risks and opportunities that may impact its strategic objectives. These steps are the following: identification, analysis, evaluation, treatment, registration and reporting; in addition to continuous monitoring, review, communication and consultation processes. The analysis considers internal and external factors as well as stakeholder expectations.

Risk management is incorporated into all areas of the company, from ore extraction to bauxite shipments, and includes risks of various natures: Environmental, Social, Governance, Business Strategy, Legal and Regulatory,

**Risk management is integrated into all areas of the company, from ore extraction to bauxite shipments.**

Market, Liquidity, Credit, Cyber and Technology, Processes and Compliance.

Each risk is assessed based on a probability x impact matrix, considering the following impact categories: environmental, financial, occupational, operational, reputational and social. In addition, as of 2024, MRN began to incorporate its material topics into its risk matrix, recognizing that ESG factors have a transversal impact on several areas of the company. As a reflection of this integration, five new environmental risks were included in the corporate matrix.



Currently, MRN has 301 enterprise risks mapped into its management system. Risk assessment occurs periodically through workshops with operational professionals, supervisors and leaders, who contribute to the assessment and classification of these risks.

MRN annually identifies its Top 10 *Business Risks* among the risks monitored, based on the combination of their probability, magnitude and potential impact on the business.

All mapped risks are reassessed every two years. Those classified with medium or high criticality undergo routine evaluations through self-assessments and periodic audits that verify the effectiveness of the controls adopted.

Thus, the main objectives of MRN's risk management are:

### MRN's primary strategic risks:

1. Delays or failures in obtaining environmental licenses/authorizations
2. Loss of operating license
3. Production Drop in the Transition between the East Zone and the West Zone
4. Liquidity risk
5. Vehicles and equipment tipping over in the mining area
6. Collisions of vehicles and equipment in the mining area
7. Collapses of water and tailings dams
8. Occurrences of disease outbreaks, epidemics or pandemics with mortality greater than 0.01%
9. Moral or sexual harassment, prejudice and discrimination in the workplace
10. Reduction of benefits provided for in the Tailings Disposal Master Plan (PDDR)

- 01 Prevent the occurrence of negative events (threats)
- 02 Leverage positive events (opportunities)
- 03 Ensure compliance of processes
- 04 Enhance management procedures to minimize deviations
- 05 Support decisionmaking
- 06 Guide management actions through ethics, integrity and transparency

## Ethics, Transparency and Communication

Ethics and transparency guide MRN's decisions and relationships; they are fundamental for the construction of solid and reliable governance. The company seeks an organizational culture based on integrity, with clear guidelines on expected conduct and unacceptable actions in the corporate environment. This journey of maturity is driven by formal systems such as the **Code of Conduct**, ongoing training, strengthened internal communications, and secure channels for feedback and reporting. The tools enable employees to understand their roles in maintaining an ethical environment and to act

responsibly when faced with situations that could compromise MRN's values.

Through the Compliance and Anti-Bribery Management System, MRN strives to prevent misconduct, comply with legal requirements, and foster an ethical culture. This system is guided by five pillars.

The **first pillar** is governance, with emphasis on the Board of Directors, Audit Committee, Executive Board, and Ethics Committee, which are responsible for disseminating MRN's integrity and transparency culture.

The **second pillar** is risk management, with assessment of business risks and due diligence qualifications of third parties, ensuring that hiring, acquisitions and partnerships are aligned with MRN's integrity standards.

The **third pillar** includes the ethical commitments such as the Code of Conduct, the AntiCorruption Policy, the Human Rights Policy and other regulations linked to the company's Compliance and Anti-bribery Management System and aligned with the ISO 37301 and ISO 37001 certifications.

The **fourth pillar** is training and communications, with a continuous approach designed to foster adherence to these MRN commitments. The topics include ethics and integrity, human rights and corruption prevention, disseminated by in-person and online courses, with periodic evaluations that strengthen trust with partners and employees.

The **fifth pillar** addresses the monitoring and reporting of indicators that demonstrate the company's adherence to the guidelines of the Compliance and Anti-Bribery Management System.

**MRN recognizes corruption, fraud, and improper conduct as relevant risks and integrates them into the Compliance and Anti-Bribery Management System.**

MRN bases its ethical standards on recognized international commitments, such as the principles of the United Nations (UN), International Labor Organization (ILO), and Organization for Economic Cooperation and Development (OECD), incorporated into its governance

through anti-corruption regulations, ISO 37001 and ISO 37301 certifications, and the Guidelines for Human Rights. In addition, it adopts due diligence practices provided for in the Code of Conduct, the Contract Management Manual, and the Human Rights Guidelines, ensuring risk

mitigation. In the environmental context, it applies the precautionary principle based on the assessment of potential risks in Environmental Impact Assessments (EIA) and the execution of Environmental Monitoring Programs.

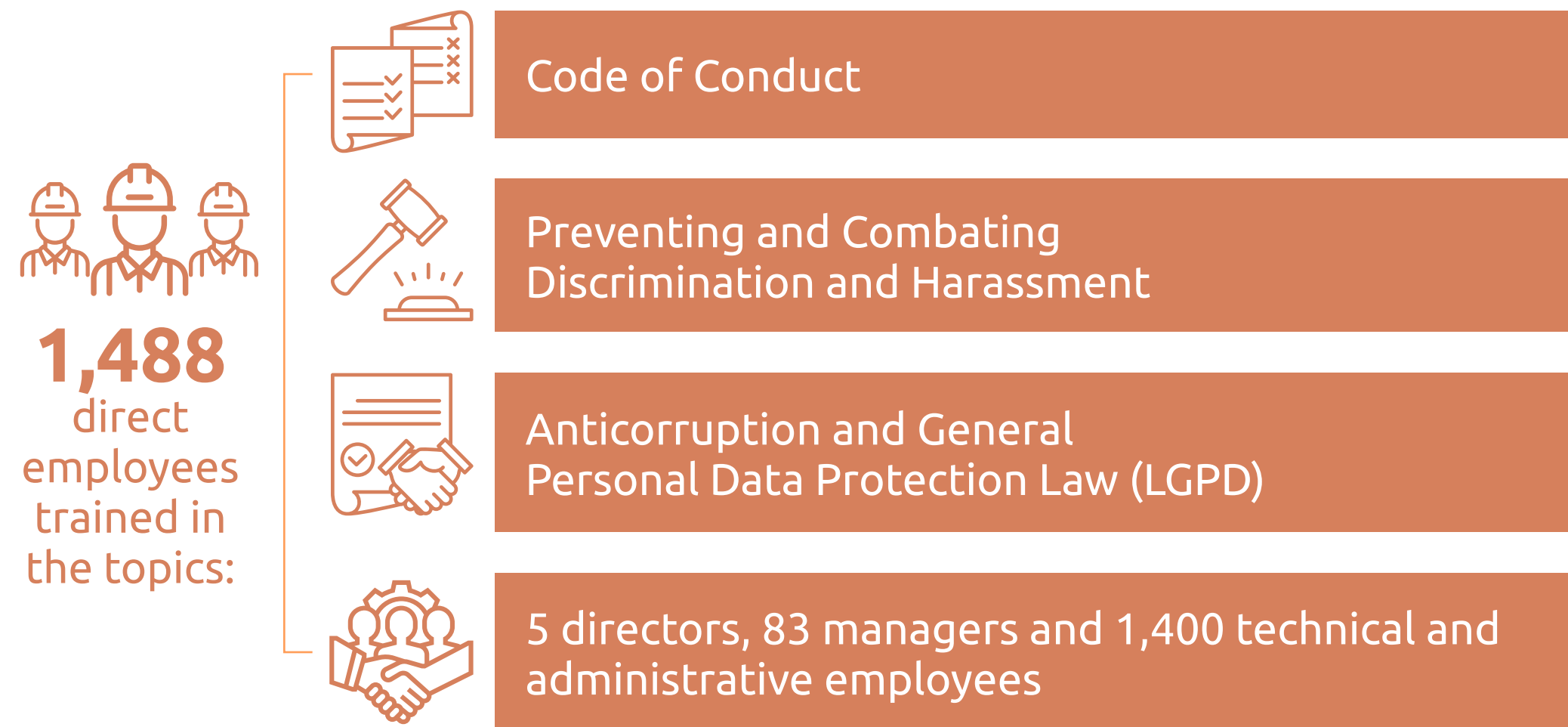
MRN establishes clear guidelines based on ESG principles to align its business partners, suppliers, customers and employees with corporate responsibility and sustainability commitments. These commitments are reflected in contracts with clauses that specify ethical, legal, socio-environmental and integrity obligations, ensuring that partners adhere to the applicable legislation and the company's internal regulations. These include audits to monitor cooperation with MRN's requirements, and that may lead to contractual termination. MRN also conducts a structured pre-contractual due diligence process, with registration, reputational and integrity analyses conducted by the Compliance Department. In addition, MRN insists on the inclusion of safeguards to comply with the Brazilian General Personal Data Protection Law (LGPD). Clear incentive and accountability specifications ensure compliance with MRN's ethical, operational and socioenvironmental commitments.

**In 2024, MRN trained 1,488 direct employees on topics such as the Code of Conduct, the Prevention of Discrimination and Harassment, and the Anti-Corruption and the General Personal Data Protection Law (LGPD). MRN also initiated 64 communications actions, including the Compliance and Leadership Meeting, High Leadership Messages, and Microlearning Nuggets, which are short, focused training modules designed to teach a specific skill or piece of knowledge in a brief amount of time. The entire Executive Board, including the CEO, also received training.**

PILLARS

- 01 Governance & Organization
- 02 Risk Management
- 03 Policies, Procedures and Controls
- 04 Training and Communications
- 05 Monitoring and Reporting

COMPLIANCE MANAGEMENT IN NUMBERS



**64 communication actions, reinforcing awareness and strengthening organizational culture**

- Compliance and Leadership Meeting
- Microlearning Nuggets
- Upper Leadership Messages

**All engaged employees participate in integration training that includes information about anti-corruption regulations. For non-mobilized suppliers, the obligations are contractual, with the Code of Conduct included in all agreements.**



Compliance training conducted in MRN's operational areas.

## Ombudsman Channel

MRN's Ombudsman Channel is independent, confidential and accessible to direct employees, contractors and the general public. It operates 24 hours a day, seven days a week, through the MRN website, phone, and email, with support in Portuguese, Brazilian Sign Language (Libras), and other assistance resources. Reports can be made anonymously or with identification and are received by a specialized company, with full confidentiality and in accordance with a defined protocol.

MRN maintains structured and transparent communications with Upper Management regarding integrity and ethical conduct. The Compliance Department is responsible for periodically reporting a summary

of information communicated via the Ombudsman Channel, ensuring continuous monitoring of the inputs received. Issues of important relevance or regarding potential impacts are forwarded to the Ethics Committee, an internal committee linked to the Executive Board, which decides on the appropriate administrative measures. Also, when applicable, the Audit Committee communicates cases to shareholders.

MRN conducts training and awareness campaigns to promote effective uses of the channel, reinforcing its role in promoting a healthy and safe environment. The company also expressly forbids any form of retaliation, a guideline widely disseminated in its awareness-raising communications.

In 2024, **660 reports** were received, including denunciations, inquiries and complaints, a 7% increase over the previous year.

Complaints received and evaluated during the year:

- **14%** classified as substantiated, addressed with appropriate measures
- **7%** partially upheld
- **24%** unfounded
- **17%** inconclusive
- **25%** interpreted as matters not linked to MRN's activities
- **16%** received in the last quarter of 2024 and therefore will be analyzed during 2025

Click here and access our Ombudsman Channel





## LGPD

In 2024, MRN intensified measures to ensure compliance with the General Personal Data Protection Law (LGPD), promoting the review of internal confidentiality regulations, updating the Personal Data Inventory, and making adjustments to the privacy management tool procedures. These initiatives aim to fully comply with legal requirements, guarantee the rights of data subjects, and improve risk analysis and controls related to privacy and data protection.

*Monitoring of operations  
at the Bauxite  
Beneficiation Plant.*

## Transparency and Communication

Transparency is a core value for MRN and is reflected in the way the company shares relevant information with society. The environmental licenses that authorize MRN's operations are published and can be consulted on the Brazilian Environmental Regulator's (Ibama) website, ensuring public access to the conditions established by the regulatory agencies. In addition, MRN's mining authorizations are available on the National Mining Agency's (ANM) website, reinforcing the company's commitment to legal compliance and accountability.

Moreover, MRN is dedicated to communicating other aspects of its operations in a clear and accessible manner in order to strengthen relationships of trust with its stakeholders. Among the materials available, we highlight this Annual

Sustainability Report, thematic booklets, exclusive information for the community, publications on social networks and the intranet, News and marketing emails, pages on the website with specific content — including webseries — and the "INSIDE MRN" ("POR DENTRO DA MRN") report, the first edition of which was released in the first half of 2025 with a focus on key semiannual highlights.

The company also uses channels such as local radio programs, broadcast lists via messaging apps, and frequent meetings with stakeholders in order to promote a direct and continuous dialogue. The variety of formats and languages seeks to expand access to information, ensuring that different audiences can understand and follow MRN's actions in a clear, accessible and inclusive way.



*Monthly planning meeting for MRN's mine and production process.*

## Socio-environmental Compliance

MRN conducts its operations and projects based on the best socio-environmental management practices, ensuring compliance with applicable laws and standards. MRN's Integrated Management System (IMS) is aligned with the requirements of international standards ABNT NBR ISO 14001 (Environmental Management), ABNT NBR ISO 45001 (Occupational Health and Safety), ABNT NBR ISO 37001 (Anti-Bribery Management), and ABNT NBR ISO 37301 (Compliance Management). The *Aluminium Stewardship Initiative* (ASI) incorporated

principles, focusing on the Performance and Chain of Custody Standards, the *International Finance Corporation* (IFC) performance standards and the Global Industry Standard on Tailings Management (GISTM) requirements reinforce the adoption of sustainability criteria at all stages of MRN's operation, from extraction to shipment of bauxite ore.

To ensure legal compliance and sustainable performance, MRN has adopted the Legnet computerized system, which supports the systematic

management of regulatory requirements. In addition, the company has established, implemented and continues to maintain the Identification, Evaluation, Disclosure and Compliance with Environmental and Occupational Health and Safety (EHS) Legal Requirements Procedure, which defines the guidelines and responsibilities for managers to identify and record relevant information concerning legal obligations. This control covers a wide range of instruments, including agreements with public authorities, customers, industry entities, community and non-governmental organizations, as well as voluntary commitments, codes of conduct and aspects pertinent to customary law. In this way, MRN ensures compliance and maintenance of its certifications, strengthening the credibility of its operations and generating value for

all its stakeholders. During the reporting period, no significant cases of non-compliance with laws and regulations were identified. Any notices and fines are regularly disclosed in the Management Report and in the financial statements, and the company presents a defense in cases where it disagrees with the fundamentals. In the period, there was no application of non-monetary sanctions, nor records of payments involving fines related to non-compliance in previous years. The definition of significant non-compliance cases considers the materiality of the financial and reputational impacts involved, and all judicial and extrajudicial demands are systematically monitored by MRN's Legal Management.

**MRN conducts its operations and projects based on the best socioenvironmental management practices, ensuring compliance with applicable laws and standards.**

## Mine Closure and Future Use

Mine closure represents one of the most critical stages in the mining life cycle, requiring robust technical planning, social sensitivity and environmental commitment from the beginning of the project. Far from being just a final milestone, it is a continuous and integrated process that aims to guarantee the physical and chemical stability of the mined areas, promote their environmental recovery, and support the socio-economic transition of the surrounding communities. Transparency in actions related to the closure and future use of the areas is essential to reinforce corporate responsibility in the face of the impacts involving the activity. These range from the preparation of financial plans to provisions for permanent dialogue with stakeholders, including considering the continuity of MRN's operations through the West Zone Program (PZO). With this

systemic and long-term view, the mine closure is understood as an opportunity to leave a positive legacy for the territory.

**MRN maintains a Mine Closure and Future Use Plan structured from the stages of project feasibility studies, based on applicable legal requirements, also considering long-term economic models.** This plan incorporates as basic premises all environmental and social recovery instruments currently in force, ensuring an integrated approach that is updated annually. The closure actions, both of the mining fronts and tailings reservoirs, are conducted in a continuous and planned manner, accompanying the dynamics of the operations. The plateaus are mined using the strip system, making it possible to rehabilitate the mined areas immediately after extraction. The tailings reservoirs are closed at the end of their

useful lives, according to technical and normative criteria.

With the closure of each mining front, MRN directly begins the decommissioning process, which includes the recovery of degraded areas, soil restoration and reforestation with native species, in accordance with current environmental plans. This process is guided by a formalized closure schedule, validated by regulatory agencies, and involves steps of integrated environmental monitoring among the areas of the dams, the environment and the operations. Applied systematically in the Saracá-Taquera National Forest, this approach is recognized by Ibama and the Chico Mendes Conservation and Biodiversity Institute (ICMbio) as a reference in efficiency in the rehabilitation of mined areas in a tropical forest context.

**With the 2024 implementation of the new Pit Dry Tailings Disposal System, which is detailed in the West Zone Program section, the process of closing the mined areas will undergo significant transformations, accelerating forest recovery and eliminating the need to build new tailings reservoirs.**

[Access MRN's Mine Closure and Future Use public document here](#)



MRN's 27 tailings containment structures undergo a planned leveling process at the end of their useful lives, with the application of organic soil (*topsoil*) that favors reforestation and the resumption of ecological functions. Structures such as reservoirs SP1, SP2 and SP3 already have an advanced stage of environmental reintegration, according to Ibama guidelines and ANM protocols. The non-toxic nature of the tailings and the lack of addition of chemicals facilitate their reintegration, promoting water infiltration and native vegetation regeneration. The Closing and Future Use Plan incorporates both this progressive closure and the definitive termination of activities, reflecting a commitment to the responsible transition of the territory.

The Plan is developed based on the current Mining Plan, considering each



*Aerial view of an ecological restoration area at Aviso Plateau*

operational front's Life of Mine (LOM) with its respective quantities and deadlines. This integration ensures that closure planning is aligned with the operational reality and the mine time horizon. The plan includes estimates of the expenditures necessary to terminate the activities, with cost projections calculated over the time periods until full compliance with the decommissioning, demobilization and post-closure monitoring obligations are completed.

The provisioning of the amounts follows accounting requirements established by specific legislation and currently corresponds to R\$ 920,158,490.33. The methodology used to estimate these costs is detailed in a specific chapter of the plan and considers all the socio-environmental commitments assumed, including environmental rehabilitation actions, current social programs and the services necessary for the decommissioning and disassembly of the

structures, based on technical proposals and updated databases. In addition, the costs of monitoring the rehabilitated areas are included for a period after the closure, ensuring the continuity of environmental protection and the security of the territory.

Revised in 2024 and filed with the ANM, in accordance with Resolution No. 68/2021, the annual updates focus on the adequacy of costs calculated by economic models.

2024 MINE CLOSURE PLAN HIGHLIGHTS:

**Total provisioned amount:**

 **R\$ 920,158,490.33**

**Distribution of estimated costs:**

 **78.42%**  
Decommissioning

 **9.40%**  
Environmental Rehabilitation

 **9.62%**  
Post-closure monitoring

 **2.55%**  
Social Programs

**Time horizon of disbursements:**

By 2081, according to the Life of Mine (LOM) of the operational fronts that consider Phase 2 of the West Zone Program (PZO) and the periods of decommissioning and environmental monitoring.

**Cost Calculation Basis:**

The cost estimate for the implementation of the Mine Closure Plan is prepared based on a structured cost engineering methodology, being classified as a Class 4 estimate, according to Association for the Advancement of Cost Engineering (AACE) International guidelines. This rating indicates a level of project definition between 1% and 15%, and is suitable for initial planning, feasibility analysis and decision support. The accuracy associated with this type of estimate is on the order of -15% to +25%, which is considered appropriate for projects in the preliminary stage, such as mine decommissioning, given their complexity and technical and environmental variability.

**Cost Update:**

The costs are updated annually, and the new assets are routinely included. There is a reconciliation of what is being executed and/or demobilized. Adjustments are subsequently made to the economic model.



# 05

## Appendices

*Obed Miranda, Operations Control technician.*

# GRI Contents

In this section, additional GRI content information is presented in addition to what has already been presented in this report. The universal and topical contents are associated with the international GRI standards and the material topics. The GRI Sectoral contents are complementary guidelines specific to the GRI 14: Mining Sector 2024 notebook.

## UNIVERSAL AND TOPICAL CONTENTS

### GRI 2-2: The company and its reporting practices

The Management Report and Financial Statements 2024 and the Sustainability Report refer exclusively to Mineração Rio do Norte S.A. (MRN). The company does not have other entities within its scope, so there are no differences between the entity included in the financial report and the one covered in the sustainability report.

### GRI 2-4: Information Reformulations

There was no reformulation of information in relation to the previous Sustainability Report.

### 2-5: External assessment

This report was not submitted to any external assessment. However, MRN recognizes the importance of this mechanism as a good practice of transparency and verification of

information integrity. Thus, the company intends to conduct external audits in upcoming reporting cycles. Internally, the data were reviewed and validated by the responsible areas.

### GRI 2-7: Employees

#### NUMBER OF EMPLOYEES, BY TYPE OF EMPLOYMENT RELATIONSHIP, BROKEN DOWN BY GENDER

	2024		
	Male	Female	Total
Total number of direct employees	1,423	208	1,631
Number of permanent employees	1,403	176	1,579
Number of temporary employees*	46	6	52
Number of full-time employees	1,423	208	1,631

## NUMBER OF EMPLOYEES, BY TYPE OF EMPLOYEE RELATIONSHIP, BROKEN DOWN BY REGION

	2024		
	Pará	Other states	Total
Total number of direct employees	1,382	249	1,631
Number of permanent employees	1,330	249	1,579
Number of temporary employees*	52	0	52
Number of full-time employees	1,382	249	1,631

*Note 1: The methodology used was to count the total number of employees based on the 12/31/2024 payroll.*

*Note 2: Temporary employees are those who have fixed terms for the end of their contracts.*

*Note 3: During the reporting period, there were no significant fluctuations that need to be mentioned in the numbers of employees.*

### 2-15: Conflicts of interest

MRN has a formal process for the prevention and mitigation of conflicts of interest, conducted by the Compliance and Governance Department. All employees and candidates for employment are required to complete a specific statement, consisting of nine

questions that help identify potential conflict situations. The responses are analyzed by the compliance team, and if any risks are identified, alignments are made with the leadership and/or the board to define mitigation measures. If any conflicts of interest are identified, they are disclosed only to stakeholders related to each case.

### 2-28: Association Memberships

Trade Associations:

- Aceor- Oriximiná Association
- Aces- Santarém Association
- Acets – Terra Santa Association

Sector Entities:

- ABAL – Brazilian Aluminum Association
- FIEPA – State of Pará Industry Federation
- IBRAM – Brazilian Mining Institute, highlighting the participation in the *Mining Hub*
- ATP – Private Port Terminals Association
- SIMINERAL - State of Pará Mineral Industries Union
- ASI— *Aluminium Stewardship Initiative* - International institute that establishes and certifies aluminum value chain standards

**2-30: Collective bargaining agreements**

100% of eligible employees are covered by the MRN collective bargaining agreement.

**101-1: Policies to halt and reverse biodiversity loss**

MRN has developed a series of programs aimed at mitigating and offsetting impacts on biodiversity, in accordance with environmental licensing requirements and aligned with international best practices. These initiatives are supported by certifications such as ISO 14001 and the ASI Performance Standard. While not directly linked to the 2050 Goals or the Global Biodiversity Framework 2030 Targets, the programs are guided by common conservation principles and objectives.

**101-5: Locations with impacts on biodiversity**

The areas of the operating units, with their respective geographic locations and sizing in hectares, are described below: "Aramã;

LAT -1.844441398 - LONG -56.41917428; Oriximiná/PA; Terra Santa/PA; 344.01ha"; "Almeidas; LAT -1.736421 - LONG -56.402239; Oriximiná/PA; Terra Santa/PA; 875.84ha"; "Aviso; LAT -1.751992715 - LONG -56.49373873; Oriximiná/PA; Terra Santa/PA; 1449.6ha"; "Bacaba; LAT -1.774605817 - LONG -56.36775948; Oriximiná/PA; Terra Santa/PA; 212.69ha"; "Barone; LAT -1.756928984 - LONG -56.65618971; Oriximiná/PA; Terra Santa/PA; 83.19ha"; "Bela Cruz; LAT -1.799784184 - LONG -56.51798133; Oriximiná/PA; Terra Santa/PA; 1495.08ha"; "Cipó; LAT -1.751159 - LONG -56.546074; Oriximiná/PA; Terra Santa/PA; 1298.4ha"; "Cruz Alta Leste; LAT -1.574948941 - LONG -56.6930318; Oriximiná/PA; Terra Santa/PA; 351.94ha"; "Escalante; LAT -1.67312863 - LONG -56.57543656; Oriximiná/PA; Terra Santa/PA; Faro/PA; 997.58ha"; "Greigh; LAT -1.845828 - LONG -56.528062; Oriximiná/PA; Terra Santa/PA; 148.95ha"; "Jamari; LAT -1.743232783 - LONG -56.71046668;

Oriximiná/PA; Terra Santa/PA; Faro/PA; 3,752.52ha"; "Monte Branco; LAT -1.62358652 - LONG -56.539761; Oriximiná/PA; Terra Santa/PA; 3902.59ha"; "Papagaio; LAT -1.603106 - LONG -56.440281; Oriximiná/PA; Terra Santa/PA; 2451.84ha"; "Periquito; Latito; LAT -1.638612 - LONG -56.452545; Oriximiná/PA; Terra Santa/PA; 689.86ha"; "Rebolado; LAT -1.646227441 - LONG -56.66766069; Oriximiná/PA; Terra Santa/PA; Faro/PA; 4,215.84ha"; "Teófilo; LAT -1.768495031 - LONG -56.58436449; Oriximiná/PA; Terra Santa/PA; 850.62ha"; "Saracá; LAT -1.681910598 - LONG -56.45513805; Oriximiná/PA; Terra Santa/PA; 4665.53ha".

**205-3: Confirmed incidents of corruption and actions taken**

In the reporting period, no lawsuits or administrative proceedings related to corruption cases involving MRN were identified. In addition, there were no reports of dismissals or disciplinary sanctions applied to employees for this

reason. There were also no contractual terminations with suppliers for violations related to corruption, nor lawsuits filed against the company or its employees in relation to this topic. These results reflect MRN's commitment to the integrity and effectiveness of the preventive measures adopted, including continuous training, specific contractual clauses with suppliers, and the maintenance of a robust system of internal controls and *compliance* monitoring.

**305-6 Emissions of ozone-depleting substances (ODS)**

MRN uses ODS exclusively through the consumption of substances associated with refrigeration equipment, such as air-conditioning systems, which comply with the parameters permitted by Brazilian legislation. Two gases were consumed under the fugitive emissions category, HCFC-22 and HCFC-141b, that generated 0.025 and 0.0067, respectively.

**402-1 Minimum notice periods regarding operational changes**

Although the minimum notice period for operational changes is not specified in the collective agreements, MRN follows the minimum time established in legislation, which is two weeks for communication of significant operational changes.

**403-9: Occupational accidents**

	2024			Total
	Employees			
	Direct Employees	Contract Workers	Projects	
Number of deaths due to accidents at work	0	0	0	0
Death rate due to accidents at work	0	0	0	0
Number of reportable lost-time accidents	1	1	0	2
Rate of reportable lost-time accidents	0.23	0.14	0	0.14
Number of workplace accidents that had to be reported	3	6	1	10
Mandatory reporting accident rate	0.7	0.84	0.46	0.73
Number of hours worked	4,312,778.39	7,131,372.64	2,179,543.26	13,623,694.30

**403-10: Occupational illnesses**

In 2024, MRN had no cases of occupational illnesses reported.

**406-1: Cases of discrimination and collective measures taken**

In 2024, the MRN Ombudsman Channel received 12 reports related to discrimination. After analysis, it was concluded that two cases were under MRN's direct responsibility, and ten were the responsibility of third-party contractors. Of the cases attributed to MRN, one was assessed as unfounded and the other as well-founded. Among the reports involving third parties, four were still under investigation in the reference period, two were considered unfounded, three were confirmed as valid and one as partially valid. In view of these cases, MRN adopted corrective measures to strengthen the culture of respect and inclusion, prioritizing the reinforcement of training and internal communications processes. The actions conducted included Daily Safety Dialogues

(DDS) focusing on Race and Ethnicity; special editions of the “Bora Conversar” (Let's Talk) program on dates such as International Women's Day, Autism Awareness Day, Family and Mother's Day, LGBTQIAPN+ Pride Month, and Women's Day in Engineering; in addition to the “Eles por Elas” (Men Supporting Women) initiatives, the “Lidera Mulher” (Women in Leadership) Project, and the “Pillar Meeting with Shareholders.” These initiatives are part of the company's ongoing effort to promote a safe, inclusive and nondiscriminatory work environment.

**410-1: Security personnel trained in human rights policies or procedures**

MRN ensures that 100% of its direct security staff employees — composed of a Department Manager, Security Specialist and Administrative Assistant — receive formal internal training on the company's standards and policies related to human rights. This same requirement applies to contract security workers who participate in

mandatory training addressing topics such as business security, rules of engagement, proportional use of force, and fundamentals of human rights. These training sessions are prerequisites for action and reinforce MRN's commitment to practices aligned with international human rights principles.

#### **411-1: Incidents of violations involving rights of Indigenous people**

As MRN has no direct interface with Indigenous people, the interpretation of this content is extended to quilombola and riverine communities. In 2024, both in the Ombudsman Channel and in the "Falaí Comunidade" there were no MRN cases of violations of the rights of these peoples.

## **SECTORAL CONTENTS**

In 2024, MRN first incorporated the sectoral GRI contents applicable to the mining industry, following the new guidelines launched in 2024. The following are the industry-specific disclosures that had material considerations in this report.

### **14.6 Tailings Organization**

#### ***tailings disposal structures***

The MRN tailings reservoirs, which receive the tailings from the processing plant, are located in three different locations. Saracá Leste: TP01, TP02, TP03, SP01, SP2/3, SP06, SP7A, SP7B, SP7C, SP08, SP09, SP9A, SP10, SP11, SP12, SP13, SP14, SP15, SP16, SP19. Sacará Oeste: SP24A, SP24B, SP24C (under construction), SP25A, SP25B, SP25C. It also has two sediment containment dams from the drying yard: the A1 Dam and the Água Fria Dam.

### **14.15 Process**

#### **safety accident management**

##### ***Number of process***

##### ***safety accidents***

MRN adopts triggering protocols in case of incidents, aligned with the emergency levels defined by ANM Resolution No. 95, applicable to all its dam structures. In 2024, there were no incidents recorded in these structures.

# GRI Summary

**Statement of use**

MRN has prepared the reported information with reference to the GRI Standards for the period from 01/01/2024 to 12/31/2024.

**GRI 1 used**

GRI 1: Foundation 2021

**Applicable GRI Sector Standard(s)**

GRI 14: Mining Sector 2024

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>General disclosures</b>						
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	7, 16, 40				NA
	2-2 Entities included in the organization’s sustainability reporting	169	2-2 c-i, c-ii, c-iii	Not applicable	MRN is not composed of multiple entities.	NA
	2-3 Reporting period, frequency and contact point	7				NA
	2-4 Restatements of information	169				NA
	2-5 External assurance	169				NA
	2-6 Activities, value chain and other business relationships	9, 41				NA
	2-7 Employees	98, 169	2-7 b-iii, b-v	Not applicable	All MRN employees have defined work hours, and the company does not have part-time employees.	NA
	2-8 Workers who are not employees	98				NA

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>GRI 2: General Disclosures 2021</b>	2-9 Governance structure and composition	149 -152	2-9 c-vi	Information unavailable/ incomplete	Board members are nominated by shareholders and MRN only accesses legally required data.	NA
	2-10 Nomination and selection of the highest governance body	150, 151	2-10 b-ii	Not applicable	Board members are nominated by the shareholders, as provided for in the Shareholders' Agreement. As such, MRN has access only to the information strictly necessary for legal registration.	NA
	2-11 Chair of the highest governance body	151				NA
	2-12 Role of the highest governance body in overseeing the management of impacts	150, 151, 153				NA
	2-13 Delegation of responsibility for managing impacts	151, 153, 154				NA
	2-14 Role of the highest governance body in sustainability reporting	7, 44				NA
	2-15 Conflicts of interest	170				NA
	2-16 Communication of critical concerns	151, 154, 161				NA
	2-17 Collective knowledge of the highest governance body	151				NA
	2-18 Evaluation of the performance of the highest governance body	151				NA
	2-19 Remuneration policies	114, 151, 153	2-19 a-iv	Not applicable	MRN does not practice clawback.	NA
	2-20 Process to determine remuneration	114	2-20 b	Not applicable	This activity is not part of MRN's remuneration determination process.	NA

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>GRI 2: General Disclosures 2021</b>	2-21 Annual total compensation ratio	NA	2-21 a, b, c	Information unavailable/incomplete	Current data consolidation methodology does not include this content.	NA
	2-22 Statement on sustainable development strategy	4				NA
	2-23 Policy commitments	144, 158, 159				NA
	2-24 Embedding policy commitments	153, 159, 161				NA
	2-25 Processes to remediate negative impacts	108, 125, 127, 145, 161				NA
	2-26 Mechanisms for seeking advice and raising concerns	127, 161				NA
	2-27 Compliance with laws and regulations	164				NA
	2-28 Membership associations	170				NA
	2-29 Approach to stakeholder engagement	46, 50				NA
	2-30 Collective bargaining agreements	171				NA
<b>Material topics</b>						
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	45				NA
	3-2 List of material topics	45				NA

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>Climate Change Management</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	67				14.1.1; 14.2.1; 14.3.1
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	67, 68				14.1.5
	305-2 Energy indirect (Scope 2) GHG emissions	67, 68				14.1.6
	305-3 Other indirect (Scope 3) GHG emissions	67, 68				14.1.7
	305-4 GHG emissions intensity	67				14.1.8
	305-5 Reduction of GHG emissions	67				14.1.9
	305-6 Emissions of ozone-depleting substances (ODS)	171				14.1.10
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	NA	305-7 a, b, c	Not applicable	These types of gases are not associated with MRN's production process.	14.1.11
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	72	302-1 c-ii, c-iii, c-iv, d	Not applicable	There is no direct correlation between energy generated from fuel oils and the operation's cooling, heating or steam consumption. These activities are secondary and not specifically measured. MRN does not sell electricity, heating, cooling or steam."	14.1.2
	302-2 Energy consumption outside of the organization	NA	302-2 a, b, c	Not applicable	Energy consumption outside the organization is not significant compared to total consumption.	14.1.3
	302-3 Energy intensity	72				14.1.4

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>GRI 201: Economic Performance 2016</b>	201-2 Financial implications and other risks and opportunities due to climate change"	69				14.2.2
<b>Biodiversity Conservation and Restoration</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	54				14.4.1
<b>GRI 304: Biodiversity 2016</b>	101-1 Policies to halt and reverse biodiversity loss	55 - 57, 171				14.4.2
	101-2 Management of biodiversity impacts	55, 56, 59 - 61, 64, 65				14.4.3
	101-4 Identification of biodiversity impacts	54				14.4.4
	101-5 Locations with biodiversity impacts	54, 171				14.4.5
	101-6 Direct drivers of biodiversity loss	59, 61				14.4.6
	101-7 Changes to the state of biodiversity	54, 59				14.4.7
	101-8 Ecosystem services	NA	101-8 a, b	Not applicable	Studies on ecosystem services are currently being evaluated by MRN.	14.4.8

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>Water Resources and Effluents</b>						
GRI 3: Material Topics 2021	3-3 Management of material topics	73				14.7.1
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	73 - 75				14.7.2
	303-2 Management of water discharge-related impacts	74				14.7.3
	303-3 Water withdrawal	75, 76				14.7.4
	303-4 Water discharge	74, 76, 79				14.7.5
	303-5 Water consumption	76	303-5 c	Not applicable	MRN has not made any changes to water storage that could cause significant impact.	14.7.6
<b>Dam Risk Management and Emergency Response</b>						
GRI 3: Material Topics 2021	3-3 Management of material topics	85				14.6.1; 14.15.1
GRI 306: Effluents and Waste 2016	306-3 Significant Spills	81				14.15.2
Additional sector disclosures	Number of process safety incidents	173				14.15.3
Additional sector disclosures	Percentage of mining units with emergency preparedness and response plans	94				14.15.4
Additional sector disclosures	Tailings disposal methods used	34				14.6.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>Additional sector disclosures</b>	Tailings disposal facilities not confirmed to be in a safe closure state	173	Second block	Not applicable	MRN currently has four structures in the deactivation phase and undergoing a decharacterization process, which involves safe abandonment and reintegration using agronomic protocols with native species. These are: SP2/3, SP6, SP01, and SP9A. All of them are in a safe closure state.	14.6.3
<b>Employee Healthy and Safety</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	115				14.16.1
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	115				14.16.2
	403-2 Hazard identification, risk assessment, and incident investigation	119, 121				14.16.3
	403-3 Occupational health services	116				14.16.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	121				14.16.5
	403-5 Worker training on occupational health and safety	121				14.16.6
	403-6 Promotion of worker health	117				14.16.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	115				14.16.8

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>GRI 403: Occupational Health and Safety 2018</b>	403-8 Workers covered by an occupational health and safety management system	115, 119				14.16.9
	403-9 Work-related injuries	172	403-9 b-iv	Confidentiality constraints	Accident details are reported to the competent government authorities through the E-social platform and are kept internally restricted to the employees involved, Occupational Health Department, Occupational Safety Department, Executive Board, and Shareholders.	14.16.10
	403-10 Work-related ill health	172		Confidentiality constraints		14.16.11
<b>Impact on traditional peoples (quilombola and riverine dwellers) and local communities</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	124				14.9.1
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	17				14.9.2
<b>GRI 203: Indirect Economic Impacts 2016</b>	Disclosure 203-1 Infrastructure investments and services supported	125, 132				14.9.3
	Disclosure 203-2 Significant indirect economic impacts	125				14.9.4
<b>GRI 204: Procurement Practices 2016</b>	204-1 Proporção de gastos com fornecedores locais	41				14.9.5
<b>Additional sector disclosures</b>	Percentage of workers hired from the local community	98				14.9.6

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>Community Relations</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	124				14.10.1
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs	37, 125, 127, 130, 161	413-1 a-vii	Not applicable	Programs aimed at local communities are developed based on impact assessments that consider topics such as occupational health and safety. However, there is no direct involvement of labor councils, work committees, or other representative entities.	14.10.2
	413-2 Operations with significant actual and potential negative impacts on local communities	125				14.10.3
<b>Additional sector disclosures</b>	Number, type, and resolution methods of complaints received from local communities	127				14.10.4
<b>Promotion of Human Rights within the company and its value chain</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	144				NA
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	172				14.21.7
<b>GRI 408: Child Labor 2016</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	144				14.18.2
<b>GRI 409: Forced or Compulsory Labor 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	144				14.19.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>GRI 410: Security Practices 2016</b>	410-1 Security personnel trained in human rights policies or procedures	172				14.14.2
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1 Incidents of violations involving rights of indigenous peoples	173				14.11.2
<b>Ethics, Transparency, and Communication</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	158				14.22.1
<b>GRI 205: Anti-corruption 2016</b>	205-1 Operations assessed for risks related to corruption	160				14.22.2
		160				14.22.3
	205-3 Confirmed incidents of corruption and actions taken	171				14.22.4
<b>Additional sector disclosures</b>	Approach to contract transparency	163				14.22.5
<b>Additional sector disclosures</b>	Beneficial owners of the organization	NA		Not applicable	MRN is controlled by publicly traded business groups whose corporate structures do not allow for the identification of an individual ultimate beneficial owner, as this is incompatible with the legal nature and corporate model of its shareholders.	14.22.6

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
<b>Socio-environmental Compliance</b>						
GRI 3: Material Topics 2021	3-3 Management of material topics	164				NA
<b>Mine Closure and Future Use</b>						
GRI 3: Material Topics 2021	3-3 Management of material topics	165				14.8.1
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	172				14.8.2
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	111, 113, 114				14.8.3
<b>Additional sector disclosures</b>	Closure and rehabilitation plan	165				14.8.4
	Plan approval and review	165				14.8.5
	Total land affected	59				14.8.6
	Estimated Life OF Mine (LOM)	167				14.8.7
	Provisioning for closure and rehabilitation	167				14.8.8
	Provision of non-financial resources	167				14.8.9



## CREDITS

### VERUM PARTNERS

**Technical and Editorial Coordination,  
Materiality, Indicator Consulting,  
Writing**

Fernanda Faria and Amanda Granha

### Digital Solutions

Rodrigo Gil and Carlos Eduardo dos Santos

### Graphic Design and Layout

Carolina Fillman

### Translation

Steve Yolen

### MINERAÇÃO RIO DO NORTE

#### Team

**Performance Management,  
Risk and Internal Controls**

Wvagno Ferreira and Flavio Queiroz

#### Communication

Ana Rita Freitas, Evaldo Printes  
and Fabiana Gomes

#### Photography

MRN Image Bank

Wanezza Soares

*Visual inspection in the port  
operational área.*



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*Daniel Pimentel,  
railway operator.*