Resourcing for a Greener Future:

Leading with Impact through Sustainability

2024 **Sustainability Report**

VALE

About the Cover

The cover of PT Vale Indonesia Tbk's 2024 Sustainability Report features a group of students from Yayasan Pendidikan Sorowako (YPS) standing in front of an electric bus operated by PT Vale. This image is more than just a visual representation — it serves as a symbol of this year's overarching theme: **Resourcing for a Greener Future: Leading with Impact through Sustainability.**

The electric bus is part of PT Vale's initiative to introduce environmentally friendly mobility solutions within its operational area. The energy that powers the bus is fully supplied by PT Vale's Hydroelectric Power Plant, making it 100% renewable and free from carbon emissions. This reflects the company's strategy of responsibly utilizing its resources to support the transition toward a greener future.

Beyond serving as transportation for employees, the bus also provides free mobility solutions for students — from Kindergarten to Senior High School — enrolled in YPS schools, benefiting both the children of employees and those from the local community. In this way, PT Vale integrates environmental innovation with meaningful social contribution.

Through this program, PT Vale demonstrates that sustainability is not only about the environment, but also about creating a positive impact for future generations. This initiative stands as concrete proof that resourcing for a greener future can also be a tangible step toward leading with impact.

Disclaimer

The Sustainability Report of PT Vale Indonesia Tbk, hereinafter referred to as the "Report", includes data and information that is material to stakeholders regarding PTVI's sustainability performance in the period 2024. In general, the contents of this Report are derived from internal reports that have been verified by third parties. The terms "PT Vale", "PTVI", "Company", "We", or "Us" used in the Report refer to PT Vale Indonesia Tbk.

Readers should be aware that this Report also presents information containing data and information about views and statements that are forward-looking. PTVI understands that risks and uncertainties from various factors can affect operational performance and business conditions in the future. Therefore, we remind readers that the Company cannot guarantee that forward-looking statements will reflect actual conditions in the future. Thus, we remind readers to use them wisely.

The tables and graphs in this Report present numerical data with writing standards following Indonesian language rules. The presentation of numerical values in the text also uses Indonesian language rules.

In general, the reporting of data and information in this report focuses on production operations in the mining area and nickel management in Sorowako, however, some topics also cover ongoing operations in the Pomalaa and Bahodopi mining areas.

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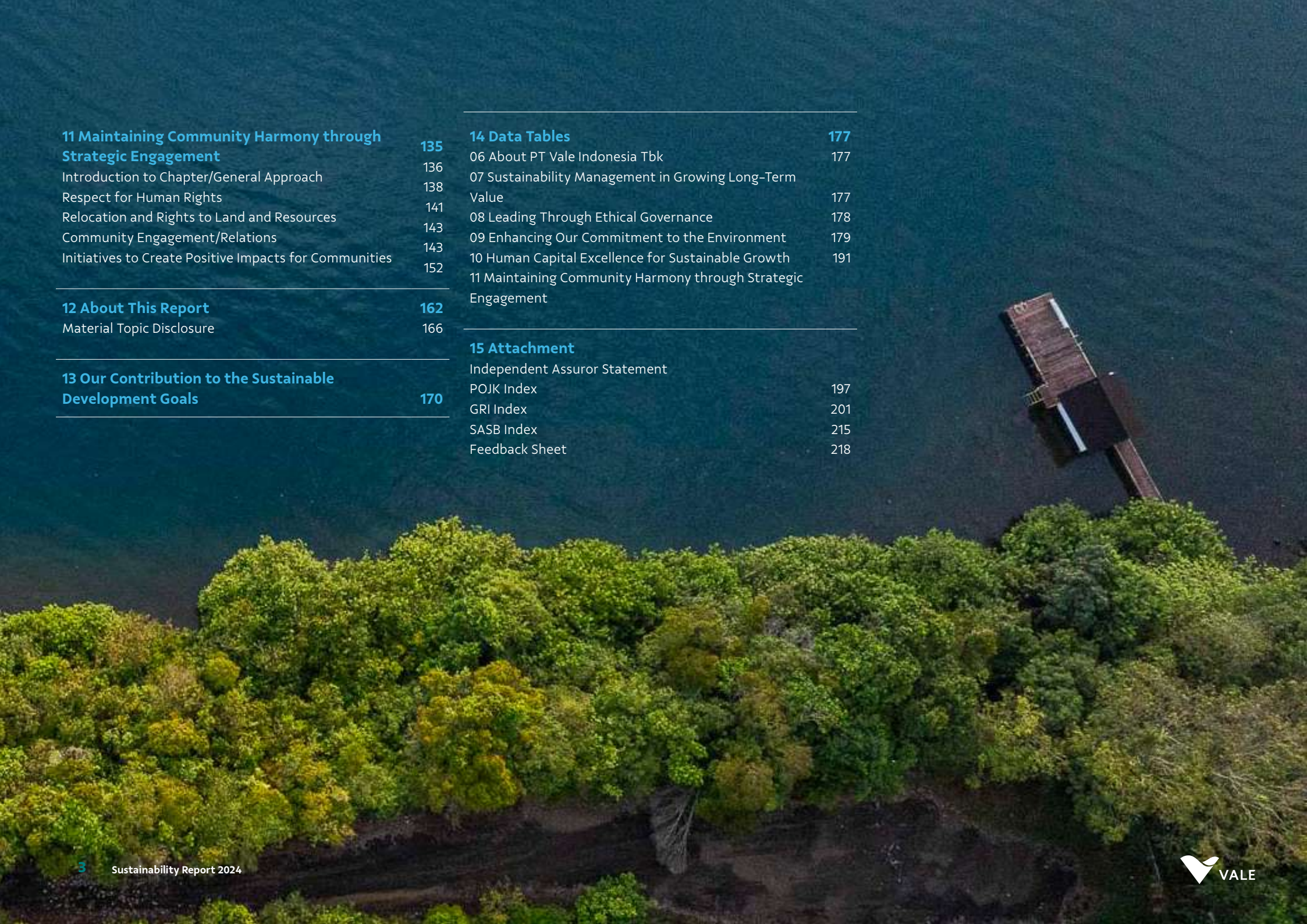

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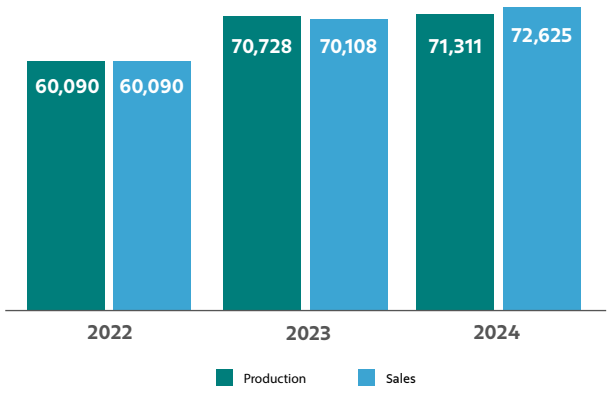
Sustainability Performance Highlights 2024

Operational Performance [POJK51-B.1]

Total Nickel Production and Sales in Matte (Tons)

Production reached
71,311 tons
↑ **0.82%** compared to **2023**

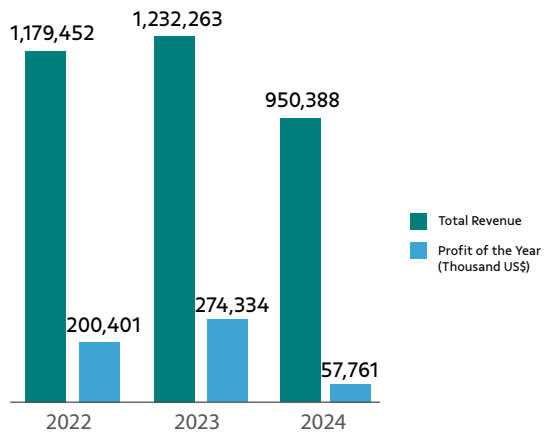
Sales reached
72,625 tons
↑ **3.59%** compared to **2023**



Operating Revenue (Thousand US$)

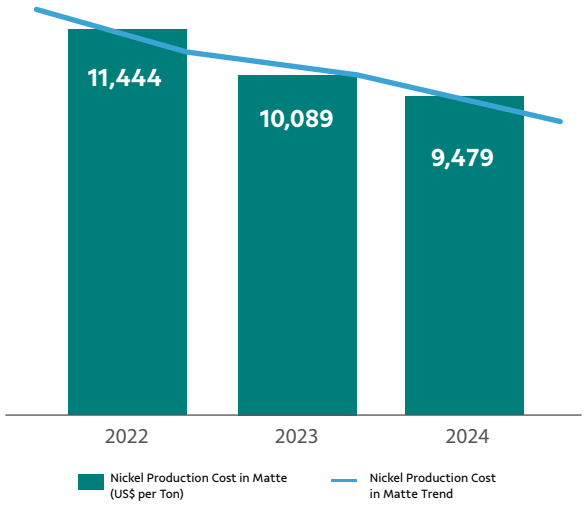
Total Revenue reached
950,388 Thousand US$
↓ **23%** compared to **2023**

Profit for the Year reached
57,761 Thousand US$
↓ **78.95%** compared to **2023**



Nickel Production Cost in Matte (US$ per Ton)

Nickel Production Cost in Matte is
US$ 9,479 per Ton
↓ **6.05%** compared to **2023**



Operational Stability Amidst Fluctuating Nickel Prices

Amidst a 30% decline in nickel prices, from US$21,482 per ton in 2023 to US$14,965 per ton in 2024, the company has managed to maintain operational stability and demonstrate positive performance through increased efficiency and the ability to produce higher production output (0.82%) at lower costs (6.05%).

Environmental Performance [POJK51-B.2]

PROPER Gold*

The highest national assessment from the Ministry of Environment and Forestry (KLHK) program.

Greenhouse Gas (GHG) Emissions

Scope 1 and Scope 2

Total GHG Emissions
(Ton CO_2eq)

2,135,742

2023: 2,032,313 **2022:** 1,748,552

GHG Emission Intensity
(Ton CO_2eq/Ton Ni)

29.95

2023: 28.73 **2022:** 29.10

An explanation of the dynamics of Production and GHG Emission Intensity can be seen on page 92.

Non-GHG Emissions

Total SO_2 Emissions
(Ton SO_2eq)

52.172

2023: 53.188
2022: 43.377

↓ **1.91%** compared to 2023

SO_2 Emission Intensity
(Ton SO_2eq/Ton Ni)

0.73

2023: 0.75
2022: 0.72

↓ **2.67%** compared to 2023

Total Particulate Emissions
(Tons of Particulates)

879

2023: 600
2022: 681

Particulate Emission Intensity
(Ton Particulate/Ton Ni)

0.012

2023: 0.007
2022: 0.009

Energy Usage

Total Energy Usage
(GJ)

31,785,655

2023: 30,974,879 **2022:** 26,956,105

Energy Intensity
(GJ/Ton Ni)

445.73

2023: 437.90 **2022:** 448.60

30.6% of total energy use comes from **renewable energy**

Waste

B3 Waste Production
(Ton)

2,407.5

2023: 2,041 **2022:** 1,865.3

Waste Utilization

1,453 tons of reuse of toxic and hazardous waste (B3)

377,964.29 tons of nickel slag (non-B3 waste) utilization as construction material and mining road layers

Water Use and Effluent Production

Water Use
(Megaliters)

8,498.94

2023: 7,561.10 **2022:** 8,519.80

Water Usage Intensity
(Megaliters/Ton Ni)

0.12

2023: 0.11 **2022:** 0.14

510 m³
of recycled water
in the Lamella Gravity Settler is used as raw material for Ferrousulphate solution.

All water treatment points meet the quality standards
set by the government.

*PROPER is an annual environmental performance assessment by the Ministry of Environment and Forestry. The Gold rating is the highest award for companies that go beyond compliance and implement sustainable practices, including social aspects. PT Vale is the only integrated nickel mining and processing company to achieve a Gold rating this year.

Environmental Performance [POJK51-B.2]

Reclamation and Rehabilitation

Reclamation of Former Mining Land (Ha)	**178.9**	**2023:** 224.4 **2022:** 295.4
DAS Rehabilitation (Ha)	**14,740**	**2023:** 10,435 **2022:** 10.435 ↑ **41.3%** compared to 2023

139,151 different types of trees were planted on land that had been mined.

Biodiversity Conservation in 2024

67,903
endemic trees replanted in post-mining areas

Conserving
22 deer

Environmental Training in 2024

633 employees and **1,134** contractors
received environmental training

75 employees and **29** contractors
participated in environmental management certification

Facing Challenges, Strengthening Commitment

2024 is a challenging year for environmental performance, with a number of achievements that are not in line with the company's sustainability targets and goals—including increased emissions and energy consumption, increased volumes of B3 waste, and decreased reclamation realization. These challenges arise amidst our efforts to increase nickel matte production at the Sorowako processing plant with lower nickel ore content. On the other hand, natural factors such as high rainfall cause the ore to have a higher moisture content.

Nevertheless, we use these challenges as a stepping stone to accelerate the transformation towards more efficient and low-carbon operations. Initiatives such as ore de-watering, heat-waste utilization, and biomass utilization are concrete examples of the sustainable steps we are taking to improve our overall environmental performance.

More details about our environmental performance and initiatives can be found on page 83.

Social Performance[POJK51-B.3]

Human Resource Management

Employee Statistics

Total Employees 3,038
2023: 3,018 **2022:** 2,929

Employee in Diversity2024 83% are local employees

88% male employees
2,686 male employees

12% female employees
352 female employees

↑ 1.4% total female employees compared to 2023

18 female employees occupy managerial positions,

10.19% of the Company's total managerial officials

Employee Training

Number of Training Hours 65,687
2023: 87,639 **2022:** 117,360

Number of employees who attended training 7,221
2023: 9,330 **2022:** 2,934

Average training hours 22
2023: 29 **2022:** 40

0.92% turnover rate, ↓ 0.07% compared to 2023

88.18% of employees are members of a trade union

143 employees received competency tests from the Professional Certification Institute

Occupational Safety and Health (K3)

Zero Work-related Deaths (Zero Fatalities) in 2024

Number of Happy Working Hours 27,220,763
2023: 8,737,825 **2022:** 14,182.199

Lowest accident statistics 76.73%
2023: 73.56% **2022:** 70.24%
↑ 4.3% compared to 2023

in PT Vale history: In 2024, the percentage of safe working hours ↑ **29.7%** compared to 2023. Percentage of Compliance with the Mining Safety Management System (SMKP) Minerba

Number of Employees and Contractors Undergoing Health Checks 18,402
2023: 16,813
↑ 9.5% compared to 2023

Total Hours of K3 and Emergency Response Training

Employees
1,020
2023: 694
2022: 361
↑ 47.1% compared to 2023

Contractors
6,166
2023: 3,964
2022: 4,525
↑ 55.6% compared to 023

Social Performance[POJK51-B.3]

Contributing to Community Empowerment

Budget realization for the Community Development and Empowerment Program (PPM) in Sorowako, Pomalaa, and Bahodopi.

US$4,000,198

2023: US$ 5,571,359 **2022:** US$ 6,381,165

Beneficiaries in 2024

~300 families and >15 public facilities
in Nuha District receive electricity subsidies

113 micro, small, and medium enterprises (MSMEs)
participants in the capacity and competitiveness improvement program

115 members of women farmers' groups
from 10 groups participate in organic farming training

9 health centers
in PT Vale empowerment areas

41 students
conduct research or internships in the operational area in Bahodopi

Forms of Support in 2024

Educational transportation facilities
or students in five villages, namely Balambano, Laskap, Pongkeru, Pasi-Pasi, and Harapan

600 genja coconut trees
planted in pineapple plantation areas

309 food packages
for stunting prevention efforts

5,000 tree seedlings
for greening the Rammang-rammang Tourism Area

Community Engagement /Relations

Complaints/ Complaints Resolved

83.7%
of complaints resolved

Governance Performance

Governance

In 2024, **Ratification of PT Vale's Sustainability Policy**

In 2024, **23.53%** of members of the Board of Commissioners and Directors are **women**

98.68%
level of Good Corporate Governance (GCG) implementation based on the ASEAN Corporate Governance Scorecard (ACGS) assessment in 2023,

↑ **11%** compared to 2021

Sustainability Performance Assessment

29.4
Sustainalytics ESG Score – Medium Risk Category,

↓ **0.9%** from 2023 score

Included in the **SRI-KEHATI****

(valid until May 28, 2025)

PT Vale's credit rating **increased** from **'BB' to 'BB+'** **by S&P Global Ratings**

Responsible Supply Chain

Local and National Suppliers
(% of total suppliers)

77%
2023: 83% 2022: 85%

100%
of suppliers receive Supplier Code of Conduct socialization

Cyber Security

Zero incidents related to damage, modification or leakage of digital data of customers, employees and stakeholders

**SRI-KEHATI, an index that measures the stock price performance of companies listed on the Indonesia Stock Exchange that have good performance in encouraging sustainable efforts, and are environmentally conscious (https://kehati.or.id/indeks-sri-kehati/).

Theme Description

Resourcing for a Greener Future: Leading with Impact through Sustainability

Since beginning exploration in Indonesia in the 1920s, PT Vale (formerly known as PT Internasional Nickel Indonesia/ INCO) has been committed to leading the industry with integrity and strong sustainability principles. **"Resourcing for a Greener Future: Leading with Impact through Sustainability"** is not just the theme of our sustainability report this year, but a reflection and affirmation of our vision and mission in responding to global challenges towards a greener future.

We recognize that nickel plays a crucial role in the global energy transition, especially as a key raw material for renewable energy technologies such as electric vehicle (EV) batteries and energy storage systems. In this context, PT Vale Indonesia is fully aware that mining activities, although important for development and supporting the decarbonization agenda, have a significant impact on society and the environment.

This awareness has given birth to a deep determination to not only provide raw materials responsibly, but also minimize negative impacts and create real positive contributions to the environment and surrounding communities. This commitment is in line with the company's goal, which is to improve the quality of life and build a better future together. Amidst the strategic role of nickel in realizing a low-carbon future, we also understand that sustainability can only be achieved through consistent social and environmental responsibility.

This theme also reflects the evolution of PT Vale's business, which is not only focused on sustainable mining activities, but also on developing refining processes through strategic partnerships to produce nickel products needed by the world to drive the energy transition. This step is part of our downstream strategy to increase added value, in line with the mission of the Republic of Indonesia government in encouraging downstream-based industrialization to increase added value, which will ultimately support Indonesia's economic growth.

Throughout 2024, PT Vale continues to demonstrate its commitment to sustainability through various impact mitigation programs, strengthening environmental initiatives, and community social development. However, we also face a number of unavoidable challenges. Declining nickel content in ore, extreme rainfall, and global nickel price pressures put additional pressure on energy efficiency and decarbonization efforts. At the same time, the use of biomass as an alternative energy still faces obstacles in terms of technical feasibility and costs.

All these challenges do not dampen our spirits but instead become a trigger to continue to innovate and adapt. PT Vale realizes that not all efforts will be immediately successful, but we continue to learn and find more effective and efficient ways to achieve sustainability goals. We believe that a greener future can only be achieved through collaboration and innovation. Therefore, the Company, together with partners, decided to build a nickel ore processing facility that can maximize the use of nickel ore that has been mined and minimize energy consumption, such as the High-Pressure

Acid Leach (HPAL) project in Pomalaa, Bahodopi, and Sorowako Limonite. These three development projects also support the green energy industry supply chain.

As part of its commitment to lead with positive impact, PT Vale is also striving to adopt global sustainability standards, including through the process towards the Initiative for Responsible Mining Assurance (IRMA) certification. On the environmental side, we continue to optimize energy use and reduce carbon footprint, in line with the Roadmap to Carbon Neutral 2050. Meanwhile, on the social side, we proactively empower local communities through increasing social capital, skills development, strengthening institutions, supporting vulnerable groups, and improving local infrastructure and cultural values.

Moving forward, PT Vale will continue to drive the transformation towards a green economy by ensuring that every business activity not only supports industrial growth, but also makes a real contribution to environmental conservation and community welfare in an inclusive and sustainable manner.

Message Frome President Director [POJK51-D.1] [GRI 2-22]

Febriany Eddy

President Director of PT Vale Indonesia Tbk

Dear Esteemed Stakeholders,

With gratitude and humility, we express our highest appreciation for the continued support and trust given to PT Vale Indonesia Tbk. Amidst the ever-growing global complexity and dynamics, we are increasingly convinced that the true strength of a company lies in strong synergy and collaboration with its stakeholders. Our journey in the nickel industry is a journey to continue learning, adapting, and growing—together and for Indonesia.

As the global energy transition accelerates, nickel has emerged as a critical mineral that plays a central role in driving the transformation towards a low-carbon economy. However, this strategic role comes with a heavy responsibility. Our industry is faced with various challenges ranging from increasingly complex environmental pressures, increasing social expectations, to regulations that continue to develop both at the national and international levels. Amidst these pressures, only those who are able to transform sustainably will survive and provide long-term positive impacts.

Not only external aspects, we also face internal challenges that require resilience and creativity. The fluctuating nickel price throughout the year requires us to rethink efficiency, business resilience, and operational competitiveness. In this situation, we are committed to maintaining a balance between economic performance and socio-environmental responsibility. Because we believe that sustainability is not an option, but the only way forward.

As part of the global nickel industry ecosystem, PTVI is aware of the strategic responsibility we carry. We are not just running mining operations but also building a better future. By upholding the principles of the International Council on Mining and Metals (ICMM), we have integrated environmental, social, and governance (ESG) aspects into every aspect of our business. This commitment is not temporary; it has become embedded in the company's identity and serves a guide in every decision-making.

In 2024, we will participate in the 29th Conference of the Parties (COP) as a form of our commitment to taking part in global efforts for sustainability. This participation is a reflection of our awareness that climate challenges can only be overcome through collaboration across sectors, countries, and interests. We are here to contribute, learn, and show that the critical minerals sector can also be part of the solution.

Through this Sustainability Report, we transparently convey the real steps we have taken, from environmental initiatives to reduce carbon footprints, to social programs that strengthen the capacity of surrounding communities. In every program, we instill a spirit of continuous learning and self-improvement, because we realize that sustainability is an ever-evolving process, not a final destination.

Operational Performance and Strategic Projects

Amidst global market pressures and significant external challenges, PT Vale demonstrated resilience and high commitment in maintaining operational sustainability. Throughout 2024, we successfully recorded nickel in matte production of 71,311 tons—exceeding the target and showing a significant increase compared to the previous year. Sales volume also increased to 72,625 tons, reflecting customer confidence in our quality and reliability.

Through various efficiency initiatives, we were able to reduce cash production costs per ton to the lowest point in the last three years, namely $9,479/ton. Although the average nickel selling price decreased by 30.3% compared to last year, we were still able to record a net profit of US$57.7 million. This achievement reflects our ability to consistently create long-term value amidst challenging market dynamics.

2024 is also a pivotal year for accelerating our strategic projects that are in line with the vision of a clean energy transition. The Sambalagi HPAL project in Morowali, designed to be carbon neutral from the start of operations, is currently completing the permitting phase, with mine construction progress reaching 70% of the target completion. With strategic partners such as Ford and Huayou, the Pomalaa project continues to show positive progress, while the Sorowako Limonite Ore project is currently in the permitting process. All of these projects are not just physical investments, but also a reflection of our commitment to continue growing responsibly and sustainably—with our stakeholders and for the future of Indonesia.

Improved Governance and ESG Performance

We believe that good governance is the main foundation of long-term sustainability. In 2023, PT Vale's score in the ASEAN Corporate Governance Scorecard (ACGS) increased to 98.68% from 87.68% in 2021. We have also started implementing the company's new values, CARES: Compassion, Accountability, Resilience, Excellence, Sustainability, as a guideline for organizational culture in facing challenges and making decisions in a more inclusive and sustainable manner. As part of the post-divestment transformation, we are implementing a carve-out process to improve operational efficiency, accelerate decision-making, and strengthen cross-unit synergies, while still upholding the principle of prudence.

Progress in governance is also evident from the increase in female representation on the Board of Commissioners and Board of Directors, which now stands at 23.5%, as well as the involvement of local and national suppliers at 77% of total procurement. This improvement is the foundation that strengthens our ESG commitment, which we continue to drive through various strategies throughout 2024.

We apply a dual materiality approach to understand ESG risks not only from a company perspective, but also from a societal and environmental perspective. This is not just a technical process, but a real manifestation of our empathy and sense of responsibility in creating sustainable value.

We have also launched a Sustainability Policy as a strategic framework for the company, and formed a Sustainability Committee to strengthen ESG-based decision-making. As new challenges arise from expansion projects and increased production capacity, we are refining our ESG roadmap to remain relevant and adaptive. This roadmap will contain concrete targets—from decarbonization, increasing social contribution, to strengthening governance—so that sustainability becomes a living culture throughout the organization, not just a commitment on paper.

PT Vale's commitment is starting to be reflected in the results of external assessments. Our ESG risk rating was updated by Sustainalytics to 29.4 (moderate risk category), the lowest level in the last three years. Meanwhile, PT Vale's credit rating based on S&P Global Ratings has increased from 'BB' to 'BB+'.

As part of our standard-building efforts, we are currently in the process of meeting the IRMA 50 (Initiative for Responsible Mining Assurance) standard—a comprehensive sustainability standard in the mining sector. This is a further step in our commitment to strengthening transparency, stakeholder engagement, and responsible socio-environmental practices.

Environmental Achievements

PT Vale continues to strengthen its commitment to protecting and preserving the environment as an integral part of our operations. For us, compliance with regulations is not the end, but rather the starting point to go further. After three consecutive years of achieving Green PROPER, in 2024 we successfully obtained Gold PROPER from the Ministry of Environment and Forestry—the highest recognition of our environmental performance and social contribution. This award is clear evidence that consistent sustainable efforts can produce meaningful impacts.

We realize that the journey towards sustainability is a long-term process full of challenges. PT Vale's environmental performance in 2024 also faced various dynamics. Several key indicators, such as emission intensity, energy consumption, B3 waste volume, and reclamation realization showed trends that were not fully aligned with internal targets. The characteristics of ore with lower nickel content and high humidity levels, as well as operational complexity, also influenced these achievements. In addition, efforts to achieve the carbon neutral target also require significant support, including the need for technological innovation, the availability of reliable green energy, and significant investment. The Company views these conditions as part of the challenges inherent in the continuous improvement process, which requires adaptive responses through innovation, process optimization, and strengthening environmental management performance as a whole.

As part of its response to these challenges, PT Vale continues to develop a more comprehensive approach, including the implementation of Life Cycle Assessment in assessing operational impacts from upstream to downstream. On the other hand, the energy transition is also a strategic priority, with 30.6% of the total energy used in 2024 coming from renewable sources. Furthermore, we reused 1,453 tons of B3 waste and 377,964 tons of slag as construction materials and mine road coatings, as part of more responsible waste management efforts.

Other significant achievements include meeting water quality standards at all monitoring points according to government-set quality standards, as well as rehabilitating 21,055.21 hectares of land by the end of 2024, including land outside the concession as part of the obligation to obtain a Forest Area Borrow-to-Use Permit. The area of rehabilitation is equivalent to approximately 3.6 times the total area that has been opened for mining activities since the beginning of operations. The post-mining reclamation approach is progressively our strategy to minimize our environmental footprint over time.

These steps are reinforced by our long-term energy transition strategy. We optimize the utilization of hydroelectric power and expand the use of biomass as a reducing fuel in our nickel processing facilities. This initiative, which began in 2023, is targeted to be completed in 2027 as part of our contribution to the national decarbonization target.

We believe that environmental leadership is not only a form of moral responsibility, but also the foundation of long-term competitiveness. All of these achievements and efforts are further described in Chapter 09: Elevating Our Commitment to the Environment in this report.

Social and Safety Commitment

At PT Vale, we believe that people are at the heart of sustainability. Throughout 2024, we continue to place human resource development as the main foundation for inclusive and sustainable growth. Of the total 3,038 employees, 82.6% come from our operational areas. We also continue to strengthen our commitment to diversity and equality, one of which is reflected in the increase in the number of female employees to 352, up 1.4% from the previous year, and the increase in female representation in managerial positions to 10.9%.

Occupational health and safety (OHS) remains a top priority and is non-negotiable. Throughout 2024, PT Vale managed to maintain zero fatalities and recorded the lowest work accident rate in the company's history. In three main project areas—Pomalaa, Bahodopi, and Sorowako Limonite—we recorded more than 13.3 million working hours without a single fatality or serious injury. This is the result of discipline, continuous tireless efforts and a safety culture that we continue to instill and embody in our daily practices.

Our performance in implementing the Mining Safety Management System (SMKP Minerba) has also improved, with a compliance rate of 76.73%, up 4.3% compared to the previous year. We have recorded significant progress in preventive measures, including the implementation of health checks that reached 18,402 employees and contractors. Hours of OHS and emergency response training have also increased drastically—up 47.1% for employees and 55.6% for contractors. All of this is part of our commitment to creating a safe, healthy, and sustainable work environment.

With an increasingly solid internal foundation, we continue to strengthen social involvement as part of our corporate responsibility. During 2024, we allocated US$4,000,198 for the Community Development and Empowerment Program (PPM) implemented in the Sorowako, Bahodopi, and Pomalaa areas, focusing on education, health, and infrastructure designed to address the real needs of the community. For this commitment, PT Vale received the Subroto Award for the community empowerment category—a form of recognition that further motivates us to continue to provide the best contribution to the communities around our operational areas.

We understand that every strategic project brings its own social dynamics. Therefore, in the Bahodopi, Pomalaa, Sorowako Limonite, and Tanamalia areas, we continue to encourage open dialogue and constructive collaboration so that the resulting solutions are truly rooted in the needs of the community. This approach is supported by strengthening the social management system that refers to international standards such as IFC Performance Standard 5 and human rights principles.

We also recognize that there is always room for improvement. In 2024, we took an important step by making public disclosure of community complaints regarding alleged rights violations. We view this transparency as a concrete form of commitment to accountability, as well as a reminder for ourselves to continue to improve, listen, and act responsibly.

Appreciation and Future Direction

We express our sincere appreciation to all stakeholders—government, business partners, employees, local communities, and the wider community—who have been part of PT Vale's journey. The trust and collaboration that have been built so far have become a solid foundation for us in walking the path of sustainability. Not a single achievement in this report was born from a single effort. All are the result of cooperation, mutual trust, and a shared commitment to creating greater value.

Amidst the dynamics of the industry that continues to move, we see a great opportunity to make environmental, social, and governance (ESG) aspects a long-term competitive advantage. We are committed to strengthening our contribution to the Sustainable Development Goals (SDGs), accelerating the de-carbonization agenda, and continuing to affirm our position as a responsible mining industry player at the global level.

Transparency, fairness, and sustainability are not just principles that we hold, but the compass that guides our every step forward.

We will welcome 2025 with realistic optimism and comprehensive readiness. We are aware of the fluctuations in global nickel prices, but we also see opportunities from the increasing demand for nickel as the world's energy transition accelerates. Through strong commitment and sincere collaboration, we believe that together we can shape a more sustainable, fairer, and more inclusive future—not just for today, but for generations to come.

Thank you for being part of this journey. We continue to move forward, with a passion to grow, improve, and make a real positive impact.

Jakarta, April 2025

Best regards,
Febriany Eddy
President Director of PT Vale Indonesia Tbk

Note:
Febriany Eddy has submitted notification of the end of her term of office with the company, effective as of April 21, 2025.

Signatures of Directors and Commissioners

We, the undersigned, declare that all information in the 2024 Sustainability Report of PT Vale Indonesia Tbk has been presented in full, and we are fully responsible for the accuracy of the contents of the report in accordance with POJK 51/POJK.03/2017. This statement is made truthfully.

Board of Directors

Febriany Eddy
President Director

Abu Ashar
Vice President Director

Adriansyah Chaniago
Director

Bernardus Irmanto
Director

Rizky Andhika Putra
Director

Muhammad Asril
Director

Luke Mahony
Director

Board of Commissioners

Muhammad Rachmat Kaimuddin
President Commissioner

Emily Olson
Vice President Commissioner

Fabio Ferraz
Commissioner

Kristina Gauthier
Commissioner

M Jasman Panjaitan
Commissioner

Edi Permadi
Commissioner

Yusuke Niwa
Commissioner

Rudiantara
Independent Commissioner

Retno L.P. Marsudi
Independent Commissioner

Marita Alisjahbana
Independent Commissioner

Note:
The latest structure of the Company's Board of Commissioners based on the resolution of the Company's Extraordinary General Meeting of Shareholders on January 14, 2025.

About
PT Vale Indonesia Tbk

VALE

PT Vale Indonesia's Role in Nickel Downstreaming

PT Vale Indonesia Tbk has been operating in Indonesia for over 56 years and has become a pioneer in renewable energy-based downstream processing within the national nickel industry. Our journey began in the 1920s with nickel exploration, and in 1968 we officially became PT International Nickel Indonesia (INCO) after signing a Contract of Work (CoW) with the Government of Indonesia. Since then, the Company has remained committed to enhancing the added value of Indonesia's mineral resources through the operation of an integrated nickel mining facility.

Long before the Indonesian government launched its mineral downstream policy, the Company had already been operating a processing plant in Sorowako since 1977. We began commercial production in 1978, relying on hydroelectric power plants (PLTA) to support plant operations, making us one of the first nickel companies to implement a sustainable downstream concept. Additionally, the Company uses Rotary Kiln-Electric Furnace (RKEF) technology to process nickel ore into nickel matte, ensuring that mined resources are upgraded before entering the market.

As it grew, PT INCO evolved into a leading nickel mining company. In 1996, the Company obtained an extension of its Contract of Work (CoW) through 2025 and increased its processing capacity to 68,000 metric tons of nickel matte per year. In 2011, following a shareholder restructuring, we changed our name from PT INCO to PT Vale Indonesia Tbk. Today, PT Vale continues to strengthen its commitment to operational excellence, sustainability, and responsible resource management. This commitment was further reinforced with the issuance of a Special Mining Business License (IUPK) extension on May 13, 2024, ensuring the Company's operations can continue until December 28, 2035. Furthermore, PT Vale is eligible to apply for an additional extension, allowing the Company to continue operations beyond 2035 and further contribute to the development of a sustainable nickel industry in Indonesia. This legal certainty supports our forward-looking business growth strategy.

This IUPK represents the Indonesian Government's trust in our commitment to sustainable mining practices. It strengthens our position in maintaining operational continuity while supporting national development and environmental preservation.

-
Febriany Eddy
CEO

Company Name and Address [GRI 2-1]

Company Name

Legal name : PT Vale Indonesia Tbk
Other names : PT Vale

Head Office Address [POJK51-C.2]

Sequis Tower, 20th Floor, Unit 6 & 7
Jl. Jend. Sudirman Kav. 71,
Jakarta 12190, Indonesia
Phone : +62-21 5249000
Fax : +62-21 5249020
Website : https://vale.com/indonesia
Email : ptvicommunications@vale.com

Representative Office Address

Makassar, South Sulawesi
Jl. Somba Opu, PO Box 1143
Makassar 90001, South Sulawesi, Indonesia
Phone : +62 411 873731, 873732
Fax : +62 411 856157

Processing Plant Address

Main Office Plant Site Sorowako
East Luwu 92984,
South Sulawesi, Indonesia
Phone : +62 475 332 9100
Fax : +62 475 332 9575

PTVI IGP Pomalaa Address

Jl. Alam Mekongga No. 81 A
Laloeha Sub-district, Kolaka District
Kolaka Regency 93561
Southeast Sulawesi, Indonesia

PTVI Bahodopi Address

PT Vale Port, Jl. Trans Sulawesi
Bahomatefe Village, East Bungku Sub-district
Morowali Regency 94973
Central Sulawesi, Indonesia

Business Scale[POJK51-C.3]

3,038 Persons
Employees of PT Vale Indonesia Tbk

US$ 443.8 Million
Total Liabilities

71,311 Ton
Nickel in Matte Production

US$ 2.73 Billion
Total Equity

US$ 954.1 Million
Total Revenue

US$ 3.2 Billion
Total Assets

US$ 57.8 Million
Net Profit for the Year

Business scale data for the past three years is available in the Data Table chapter.

VALE

Operational Area [GRI 2-1][POJK51-C.3]

Country of Operation: Republic of Indonesia

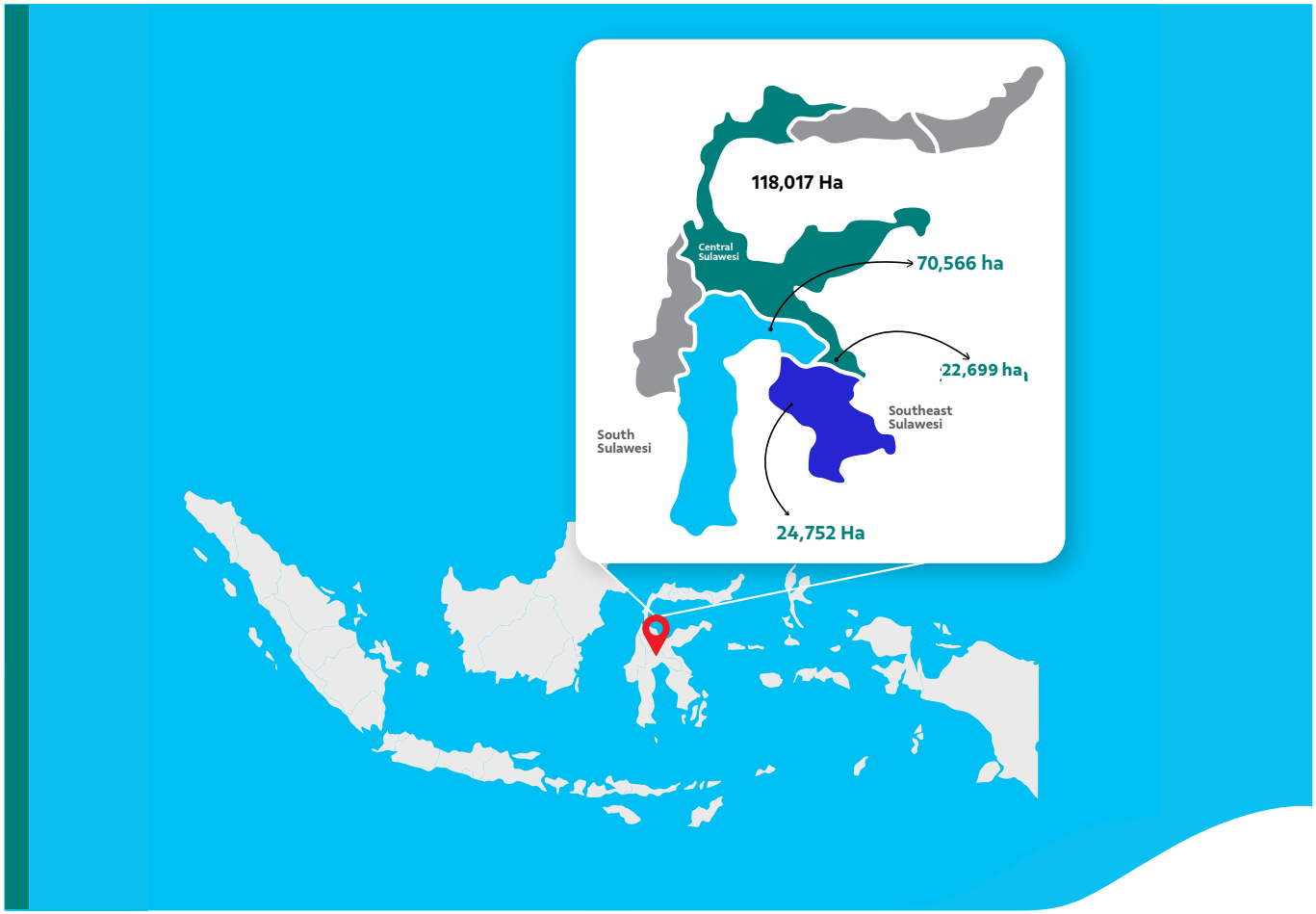
The Company does not operate in any other countries.
Nickel ore mining and nickel in matte production activities are carried out in the Sorowako Block, East Luwu Regency, South Sulawesi. As of 2024, the produced nickel in matte is sold to Vale Canada Limited (VCL) and Sumitomo Metal Mining Co., Ltd (SMM).[GRI 2-6]

PT Vale Indonesia holds a Special Mining Business License (IUPK) covering a total concession area of 118,017 hectares across three provinces: South Sulawesi (70,566 ha), Central Sulawesi (22,699 ha), and Southeast Sulawesi (24,752 ha). Of this total area, approximately 56,000 hectares are designated for mining and exploration activities, while the remaining area serves as supporting zones not used for mining operations.

Our main operations are located in the Sorowako Block, South Sulawesi, where the Company mines lateritic nickel and processes it using pyrometallurgical technology to produce nickel in matte.

In addition to Sorowako, PT Vale is developing three nickel processing projects using High-Pressure Acid Leach (HPAL) technology to produce Mixed Hydroxide Precipitate (MHP), a key material for battery manufacturing. These projects are located in Bahodopi, Pomalaa, and Sorowako (Sorowako Limonite Project). The Bahodopi and Pomalaa projects include the development of new mining sites and processing facilities to support Indonesia's nickel downstreaming initiative.

Meanwhile, the Sorowako Limonite Project aims to optimize the utilization of nickel ore from mining activities in Sorowako. Until now, only saprolite ore has been processed through pyrometallurgical methods, while limonite ore was discarded. Through this project, PT Vale can process previously unused limonite ore, supporting the principle of mineral conservation and reinforcing the Company's commitment to sustainability.

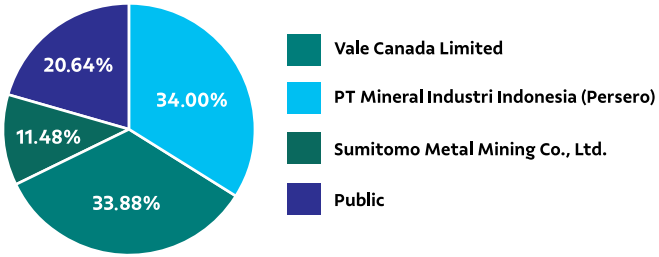


Shareholders and Legal Form [GRI 2-1]

Legal Status:
Public Limited Liability Company.
Listed on the Indonesia Stock Exchange (IDX)
since May 16, 1990

Stock Code: INCO

Shareholding Composition as of December 31, 2024



The ownership structure of PT Vale Indonesia Tbk reflects a strategic partnership between global and national shareholders. As of December 31, 2024, the major shareholders consisted of Vale Canada Limited (33.88%), PT Mineral Industri Indonesia (MIND ID) (34.00%), and Sumitomo Metal Mining Co., Ltd. (11.48%), while the remaining 20.64% was owned by the public.

The two largest shareholders, MIND ID and Vale Canada Limited (VCL), jointly control the company and play an important role in determining the long-term strategic direction of PT Vale Indonesia Tbk. MIND ID, as a state-owned holding company that oversees a number of large mining companies, represents state ownership. Thus, the Government of Indonesia becomes the beneficial owner through MIND ID's ownership of the Company.[GRI 14.22.6]

The partnership between MIND ID and Vale Canada Limited strengthens PT Vale Indonesia Tbk's position in both the domestic and global markets, and affirms our commitment as a leader in the sustainable nickel mining industry.

Business Activities and Process

PT Vale Business Activities [GRI 2-6] [POJK51-C.4]

There were no changes in PT Vale's business scope or product portfolio in 2024 compared to the previous period.

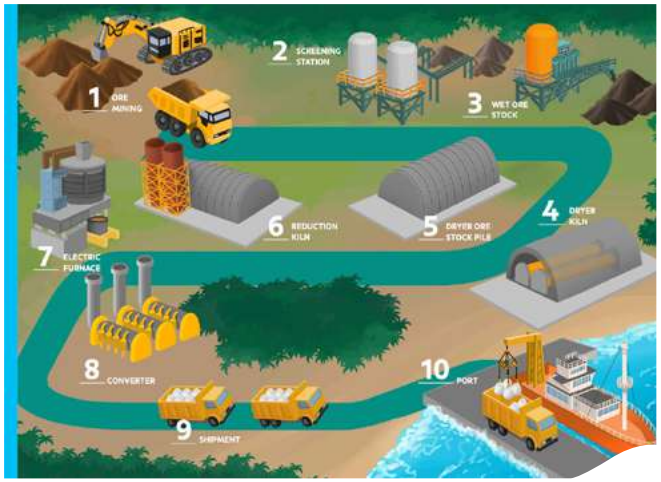
Scope of Activities in the 2024 Fiscal Year:

Nickel ore mining operations, production of nickel in matte, and sales of nickel in matte. Total nickel in matte production in 2024 reached 71,311 tons.[SASB EM-MM-000.A]

Business Scope Based on the Company's Articles of Association:

According to the latest amendment to the Articles of Association dated June 28, 2024, the Company's business activities include mining, wholesale trading, transportation, electricity supply, real estate, wastewater management, waste treatment and recycling, as well as remediation activities. The Company's core activities are nickel ore mining operations, production of nickel in matte, and the sale of nickel matte.

PT Vale Nickel Matte Business Process and Supply Chain [GRI 2-6]



1. Ore mining
2. Screening station
3. Wet ore stockpile
4. Drying kiln
5. Dried ore stockpile
6. Reduction kiln
7. Electric furnace
8. Converter
9. Shipping
10. Port

Strengthening the Domestic Supply Chain and TKDN Achievement

As part of our transparency commitment, we have restated the TKDN (Domestic Component Level) data since 2022, in line with changes in calculation methodology and stricter criteria set by the regulator. This data reflects achievements based on certified products. According to independent verification by PT Sucofindo, appointed by the Ministry of Energy and Mineral Resources (ESDM), our TKDN achievements are as follows:

	2024*	2023**	2022***
TKDN Achievements	25.37%	36.04%	55.82%

**2024 data is based on self-assessment using the same methodology; however, the verification process is still ongoing.*

***Restatement of 2023 data: Results after verification.*

****Restatement of 2024 data: Results after verification.*

Our Domestic Component Level (TKDN) achievement in 2024 declined to 25.37%. This decrease was primarily due to several factors, including the lack of awareness among some local suppliers about the requirement to obtain TKDN certification for the products they supply. Despite this, we remain committed to improving TKDN performance through various strategic initiatives that have been implemented and will continue to be developed.

Financial Performance and Economic Contribution[POJK51-B.1]

Financial and Operational Performance

The year 2024 was a challenging period, particularly in terms of the Company's financial performance. PT Vale Indonesia faced a significant decline in global nickel prices, which required the Company to adapt and demonstrate resilience amid market volatility. The average nickel price fell by approximately 30%, from US$ 21,482 per ton in 2023 to US$ 14,965 per ton in 2024.

This situation directly impacted the Company's revenue, which stood at US$ 954,107 million in 2024, a 22.88% decrease compared to US$ 1,268,839 million in the previous year. Accordingly, net profit also declined by 78.95%, amounting to US$ 57,761 thousand in 2024 compared to 2023.

Despite significant pressure on financial performance, PT Vale successfully maintained operational stability. In 2024, nickel matte production reached 71,311 tons, a 0.8% increase from 70,728 tons in 2023. On the sales side, nickel matte sales in 2024 totaled 72,625 tons, up 3.6% from 70,108 tons in the previous year. Compared to the annual targets, PT Vale exceeded both its production and sales goals. The production target of 70,805 tons was surpassed with a performance rate of 100.71%, while the sales target of 71,797 tons was also exceeded, achieving 101.15%. [POJK51-F.2]

Nickel in Matte Production and Sales Target vs. Actual in 2024 (tons) [POJK51-F.2]

Description	Target	Actual	Percentage
Production	70,805	71,311	100.71%
Sales	71,797	72,625	101.15%

Nickel in Matte Production and Sales Realization (tons)

Description	2024	2023	2022	%	
	1	2	3	1:2	2:3
Production	71,311	70,728	60,090	0.8	17.7
Sales	72,625	70,108	60,960	3.6	16.7

The increase in production and sales reflects the Company's ability to maintain operational stability amid various challenges. Meanwhile, the rise in sales realization demonstrates growing market demand and the effectiveness of PT Vale's operational and distribution strategies.

In addition to pricing pressures, PT Vale also faced significant challenges stemming from climate change. Increasingly frequent extreme rainfall events have resulted in wetter ore, which in turn requires longer drying times and higher fuel consumption during processing. This condition has led to a decline in overall energy efficiency and added pressure to the Company's ongoing decarbonization efforts.

Moreover, the decreasing nickel content in existing ore reserves has affected both productivity and operating costs, while initiatives to utilize biomass as an alternative energy source still face hurdles in terms of economic feasibility. These conditions not only impact operational performance, but also directly and indirectly influence the Company's profitability and its capacity to create long-term economic value. [GRI 201-2]

Despite significant economic pressures in 2024, PT Vale was still able to record a profit, reflecting the Company's strong fundamentals and resilience. One of the key contributing factors was successful cost control. The production cost per ton of nickel matte stood at US$ 9,479 per ton—the lowest in the past three years—or decreased by 6.05% compared to US$ 10,089 per ton in 2023. This achievement reflects the consistent application of efficiency and cost management strategies across all operational lines.

Nickel in Matte Production Cost (in thousand US$ per Ton)		
2024	2023	2022
9,479	10,089	11,444

The Company does not receive any financial assistance from the Government of Indonesia. However, in line with the shareholding structure, the Government indirectly holds shares in the Company through MIND ID, which has been one of PT Vale's shareholders since 2020.[GRI 201-4][GRI 415-1]

Economic Value Generated and Distributed[GRI 201-1]

As one of the key players in Indonesia's nickel industry, PT Vale Indonesia Tbk (PTVI) strives to create added value that goes beyond operational activities. Every aspect of our business is designed to generate positive impacts, both for the local economy and for national revenue.

As a company actively engaged in mineral downstreaming, PTVI consistently fulfills its fiscal obligations through the payment of taxes and royalties. Our presence also supports economic growth in operational areas by creating jobs, developing local supply chains, and enhancing community capacity through various empowerment programs.

As part of PTVI's commitment to creating sustainable economic value, the Company transparently reports the distribution of economic value in accordance with GRI reporting standards, which includes economic value generated, economic value distributed, and economic value retained. Economic value generated refers to the revenue earned from the Company's business activities.

Economic value distributed refers to the expenditures allocated by the Company as its contribution to driving economic growth and improving the well-being of stakeholders. These include operating costs, employee salaries and benefits, tax payments to the government, payments to capital providers, and community investment. Meanwhile, economic value retained is the difference between economic value generated and economic value distributed, which is reinvested for the Company's business development.

The breakdown of economic value distribution is presented in the following table:

Description	2024	2023	2022
Economic Value Generated (in thousand US$)			
Operating Revenue	950,388	1,232,263	1,179,452
Other Income	3,719	36,576	10,691
Total Revenue	954,107	1,268,839	1,190,143
Economic Value Distributed (in thousand US$)			
Operating Costs	785,160	550,958	772,065
Salaries and Employee Benefits	95,254	87,436	91,819
Payments to Capital Providers	0	60,093	0
Tax Payments to Government	202,242	204,617	178,676
Community Investments	3,912	4,291	4,929
Total Economic Value Distributed	1,082,656	907,395	1,047,489
Economic Value Retained (in thousand US$) *(Economic Value Generated – Economic Value Distributed)*			
Total Economic Value Retained	73,693	361,444	142,654

Sales Distribution by Buyer

PT Vale Indonesia is committed to delivering consistent, high-quality service to all customers without discrimination. We ensure that every customer receives products of the highest standard, supported by effective operations and responsible supply chain management.[POJK51-F.17]

Under the agreement between PT Vale Indonesia, MIND ID, Vale Canada Limited (VCL), and Sumitomo Metal Mining Co., Ltd. (SMM), our nickel matte products are marketed in accordance with the terms of this partnership. If production exceeds the allocated volume, the surplus will be offered to MIND ID. Conversely, if production remains within the agreed volume, the output will be divided between VCL and SMM.

This contractual arrangement provides market certainty, which means that PT Vale does not engage in direct competition with similar companies. Our nickel sales prices are benchmarked to the London Metal Exchange (LME), while cobalt pricing follows Fastmarkets as part of our commitment to fairness and transparency.[GRI 206-1]

Sales data in 2024 showed a significant increase. Vale Canada Limited recorded purchases of 58,088 tons, a 16.9% increase compared to 2023, while Sumitomo Metal Mining Co., Ltd. reached a purchase volume of 14,537 tons, up 28.8% from the previous year. With these achievements, PT Vale Indonesia successfully maintained production stability and ensured the smooth distribution of nickel matte, while also meeting targets and delivering consistent, professional service to its key customers.

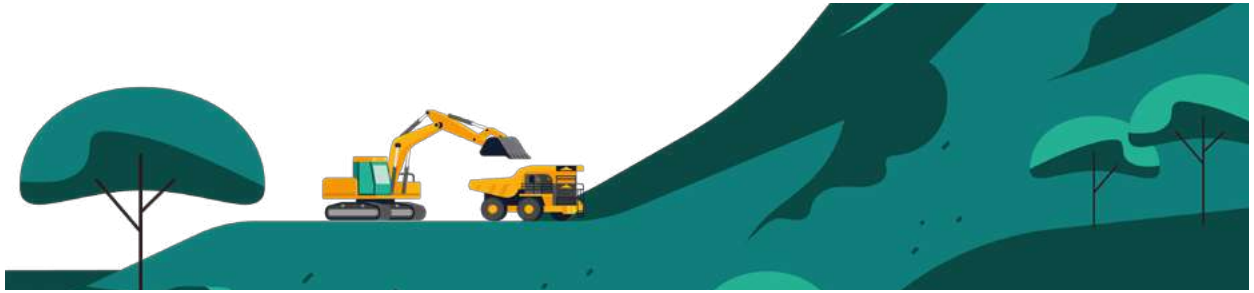
Nickel Matte (and Cobalt) Sales Realization by Buyer

Buyer	2024		2023		2022	
	Ton	%	Ton	%	Ton	%
Vale Canada Limited (VCL)	58,088	80	49,670	81	53,265	80
Sumitomo Metal Mining Co. Ltd	14,537	20	11,290	19	13,350	20
Total	**72,625**	**100**	**71,108**	**100**	**60,960**	**100**

Tax and Non-Tax State Revenue (PNBP) Contribution

PT Vale complies with applicable tax regulations in Indonesia by fulfilling its obligations for tax and Non-Tax State Revenue (PNBP) payments to the Government. The Company's tax and PNBP policy, management, and oversight fall under the responsibility of the Finance Department, under the supervision of the Finance Director. Reports are submitted monthly and quarterly to both Vale Canada and Vale Brazil.

We coordinate with local Tax Service Offices to ensure full compliance with all corporate and individual tax obligations. PT Vale also has a Tax Standard Operating Procedure (SOP) in place to monitor tax risks and support transparency, including contributions to Indonesia's Extractive Industries Transparency Initiative (EITI) reporting.



Throughout 2024, no tax violations occurred. This report includes tax and PNBP obligations paid to the Indonesian Government at both national and local levels. In 2024, our total tax and PNBP payments amounted to US$ 202.24 million, a decrease from US$ 204.62 million in 2023. [GRI 207-1] [GRI 207-2] [GRI 207-3]

Since PT Vale operates solely in Indonesia, this report covers only tax and PNBP obligations paid to the Indonesian Government. The 1.16% decrease in total tax and PNBP payments from the previous year reflects the impact of broader economic and market conditions. [GRI 207-4]

Payments Made by PT Vale to the Central and Regional Governments (in US$ Thousand)

Description	2024	2023	2022
Central Government	168,625	174,051	151,646
South Sulawesi Province	17,091	14,084	14,331
East Luwu Regency	14,850	15,995	13,031
Southeast Sulawesi Province	68	18	10
Kolaka Regency	14	1	0
Central Sulawesi Province	21	19	6
Morowali Regency	1,572	449	0
Total	**202.242**	204,617	179,024

PT Vale's Tax and Non-Tax State Revenue (PNBP) Payments (in US$ Thousand)

Description	2024	2023	2022
Tax Payments	174,502	163,189	132,256
PNBP Payments	27,739	41,427	46,768
Total Tax and PNBP Payments	202,241	204,617	179,024

Components of Taxes and Levies (in US$ Thousand)

Description	2024	2023	2022
Value Added Tax	15,030	6,532	1,452
Land and Building Tax	3,204	3,121	2,401
Employee Income Tax	18,706	14,340	12,229
Corporate Income Tax	91,430	91,618	79,588
Regional Taxes, Levies, and Grants	33,616	30,565	27,378
Third Party Income Tax Withholding	8,209	12,409	5,452
Duties	4,307	4,603	3,756
Total	**174,502**	163,189	132,256

PNBP Components Paid to the Government (in US$ Thousand)

PNBP Component	2024	2023	2022
Production Royalties	19,449	33,990	35,614
Fixed Contribution on CoW Area	496	496	496
Other PNBP	7,794	6,941	10,658
Total	27,739	41,427	46,768

Significant Corporate Changes [POJK51-C.6]

On February 26, 2024, in Jakarta, PT Mineral Industri Indonesia (MIND ID), together with Vale Canada Limited (VCL) and Sumitomo Metal Mining Co., Ltd. (SMM), signed a Share Purchase Agreement in line with the mandatory divestment requirement of PT Vale Indonesia Tbk, as stipulated by prevailing regulations.

Through this agreement, MIND ID acquired a 34% stake in PT Vale, reinforcing a more collaborative governance structure in which both MIND ID and VCL will jointly participate in strategic decision-making.

On March 28, 2024, PT Vale held an Extraordinary General Meeting of Shareholders (EGMS) in Jakarta, which approved the resignations of Ms. Deshnee Naidoo as President Commissioner and Mr. Gustavo Garavaglia as Commissioner. The meeting also approved the appointments of Ms. Emily Olson as President Commissioner and Ms. Olga Kovalik as Commissioner.

Subsequently, on April 19, 2024, PT Vale held another EGMS, approving the Company's plan for Capital Increase through Rights Issue (PMHMETD), by issuing a maximum of 603,445,814 new shares with a par value of IDR 25 per share. This was conducted in accordance with OJK Regulation No. 32/POJK.04/2015 on Capital Increase with Pre-emptive Rights, as amended by OJK Regulation No. 14/POJK.04/2019. The decision also included an increase in issued and paid-up capital, along with amendments to Article 4 of the Company's Articles of Association, which were approved in the EGMS.

On June 10, 2024, during the Annual General Meeting of Shareholders (AGMS), shareholders approved changes to the Board of Directors and the Board of Commissioners. These changes will take effect upon completion of the Acquisition Transaction (as defined in the April 19, 2024 EGMS) and will remain valid until the AGMS in 2027.

Board of Directors

- President Director & Chief Executive Officer : Febriany Eddy
- Vice President Director & Chief Operation and Infrastructure Officer : Abu Ashar
- Director & Chief Human Capital Officer : Adriansyah Chaniago
- Director & Chief Sustainability and Corporate Affairs Officer : Bernardus Irmanto
- Independent Director & Chief Financial Officer : Rizky Andhika Putra
- Independent Director & Chief Project Officer : Muhammad Asril
- Independent Director & Chief Strategy and Technical Officer : Luke Mahoney

Board of Commissioners

- President Commissioner : Muhammad Rachmat Kaimuddin
- Vice President Commissioner : Emily Olson
- Commissioner : Fabio Ferraz
- Commissioner : Kristina Gauthier
- Commissioner : M. Jasman Panjaitan
- Commissioner : Edi Permadi
- Commissioner : Yusuke Niwa
- Independent Commissioner : Rudiantara
- Independent Commissioner : Raden Sukhyar
- Independent Commissioner : Marita Alisjahbana

In addition, during this AGMS, the resignation of Ms. Farrah Carrim as Commissioner was approved, along with the appointment of Ms. Kristina Litzinger and Ms. Marita Alisjahbana as Independent Commissioners.

Certifications and Association Memberships [POJK51-C.5][GRI

Certification

ISO 14001:2015
Environmental Management System

Certification No.
ID005666, issued by Bureau Veritas ISO 14001:2015
Validity Period
September 23, 2024 – October 3, 2027
Scope of Certification
Nickel mining and processing plant, including supporting units and services

ISO 17025
Testing and Calibration Laboratory Standards

Certification No.
LP-1729-DN, issued by National Accreditation Committee
Validity Period
December 28, 2022 – December 27, 2027
Scope of Certification
Competency of Testing and Calibration Laboratories

ISO 50001
Energy Management System
Certification No.
IND.25.7130/EN/U
Validity Period
May 13, 2024 – November 24, 2026
Scope of Certification
Nickel matte mining and processing operations

Association Memberships

International Council on Mining and Metals:
Global-Level Member

Indonesia Business Council for Sustainable Development:
Febriany Eddy as Vice Chairman at National Level

Nickel Institute:
National-Level Member

Asosiasi Pengusaha Indonesia:
Associate Member at National Level

Indonesian Mining Association:
National-Level Member

Indonesia Corporate Secretary Assosiation:
National-Level Member

Asosiasi Emiten Indonesia:
National-Level Member

Forum Komunikasi Pengelola Lingkungan Pertambangan Indonesia:
National-Level Member

UN Global Compact:
National-Level Member

For more details about our certifications, please visit the Awards and Certifications.

Awards and Notable Achievements in 2024

Throughout 2024, PT Vale received several external awards and recognitions, including:

Eco-tech Pioneer and Sustainability Award (ESPA) 2024. Awarded by the Department of Environmental Engineering, Diponegoro University:

a. Gold – Low Carbon Innovation category
b. Gold – Green Energy category
c. Silver – Ecological Hazard category
d. Silver – Ecosystem Protection category
e. Bronze – Ecological Cycle Innovation category
f. Bronze – Smart Hydro Innovation category
g. Bronze – Community Development Innovation category

Indonesian SDGs Award (ISDA) 2024, organized by the Corporate Forum for CSR Development (CFCD):

a. Silver for SDG 2.2 (Social Pillar): Stunting prevention and control program
b. Gold for SDG 8.3 (Economic Pillar): Business and employment opportunity development through Sakti Woliko
c. Silver for SDG 9 (Economic Pillar): Application of appropriate technology for pest control
d. Silver for SDG 14 (Environmental Pillar): Marine ecosystem restoration and conservation
e. Gold for SDG 15 (Environmental Pillar): Development of conservation-based agro-tourism

Good Mining Practices (GMP) Award 2024, awarded by the Ministry of Energy and Mineral Resources (ESDM):

a. Aditama for Mineral and Coal Conservation Management
b. Utama Award for Environmental Management in Mineral and Coal Mining
c. Utama Award for Technical Management in Mineral and Coal Mining

Sustainable Business Integrity Index by Transparency International Indonesia (TII) and TEMPO Data Science:

a. EMERALD Category: Business Integrity / Anti-Corruption
b. EMERALD Category: Business and Human Rights
c. RUBY Category: Environmental
d. SAPPHIRE Category: Overall Index

28th National Quality and Productivity Convention (TKMPN) 2024:

a. Best Presentation
b. Platinum – SSG Mo Mylona PPM Converter Team
c. Platinum – SSG Opudi PPM Kiln-CTS Team

For more details on the awards received by PTVI, please visit Awards and Certifications.

Awards and Notable Achievements in 2024

Throughout 2024, PT Vale received several external awards and recognitions, including:

Gold Award – Certificate of Recognition for Workplace HIV/AIDS Prevention and Control Program, awarded by the Ministry of Manpower of the Republic of Indonesia

Bisnis Indonesia Awards 2024 (BIA), Metals and Minerals category, awarded by Harian Bisnis Indonesia

CSA Awards 2024 – Best Raw Materials Sector on the Main Board, awarded by the Indonesian Securities Analysts Association (AAEI) and CSA Community

Subroto Award 2024, Community Development and Empowerment (PPM) category, awarded by the Ministry of Energy and Mineral Resources

ADINKES Award from the Indonesian Association of Health Offices (ADINKES) for commitment to infectious disease prevention and prioritizing the health of employees and the local community at IGP Morowali

PROPER Gold Rating
Green Leadership Award – awarded to PT Vale CEO, Febriany Eddy

The 2024 PROPER results were announced by the Ministry of Environment and Forestry (KLHK) in 2025 as part of the assessment of PTVI's environmental and social performance in 2024.

For more details on the awards received by PTVI, please visit Awards and Certifications.

Awards and Notable Achievements in 2024

Throughout 2024, PT Vale received several external awards and recognitions, including:

Indonesia Corporate Sustainability Award (ICSA) 2024, presented by PT Olahkarsa Inovasi Indonesia in collaboration with the Indonesia Business Council for Sustainable Development (IBCSD):

1. Silver: Best Practice in Community Development
2. Silver: Innovative Human Capital Management

In recognition of the Indonesia Growth Project (IGP) Morowali for responsible and sustainable business practices

Bronze – Asia's Sustainability Report Awards (ASRA) 2024 for CEO Letter category

For more details on the awards received by PTVI, please visit Awards and Certifications.

Core Value PTVI

[GRI 2-24][POJK51-F.1]

In 2024, we reaffirmed and strengthened our corporate values as a renewal of our previous guiding principles to further support responsible and sustainable mining practices. These values are encapsulated in the ***'CARES'*** principles, which serve as the foundation of every aspect of our operations. We actively promote these principles to ensure that all employees and workers internalize and apply them in their daily activities, guiding every decision we make—from core policies to operational strategies—to generate positive impact for both communities and the environment.

Vale Indonesia
CARES

Compassion
We act with deep care, prioritizing the safety of our people, assets, and communities, because life comes first.

Accountability
We take full responsibility for our actions with integrity, creating value and achieving goals for the people of Indonesia and the world.

Resilience
We remain strong in the face of challenges, with agility and adaptability.

Excellence
We strive for excellence through synergy, innovation, and simplification to drive growth.

Sustainability
We are committed to sustainability through the responsible use of resources, improving community well-being, and preserving the environment.

Our Purpose
We exist to enhance quality of life and shape a better future together.

Core Behaviors
1. Obsession with safety and risk management
2. Open and transparent dialogue
3. Empowerment with accountability
4. Sense of ownership
5. Active listening and community engagement

Our Enablers
1. Safety
2. Vale Production System (VPS)
3. Human Resources
4. Innovation
5. Sustainability

Our Ambition
To become a great company recognized by society for:

1. The highest standards in safety
2. Being a reliable and best-in-class operator
3. A talent-driven organization
4. Leadership in sustainable mining
5. Being a benchmark in creating and sharing value

Sustainability Management in Cultivating Long-Term Value

VALE

Sustainable Approach [GRI 2-22][GRI 2-23]

In facing global challenges such as climate change, energy transition, and demands for inclusive development, PT Vale Indonesia Tbk (PTVI) is committed to being part of the solution. Sustainability is not only an obligation, but also an opportunity to create a better future for future generations. This is in line with the company's purpose: to improve the quality of life and be part of the transformation of a better future.

PTVI has integrated environmental, social, and governance (ESG) principles into the Company's business strategy. We are committed to creating long-term value that benefits stakeholders, including shareholders, employees, government, and surrounding communities, while contributing to environmental conservation.

Our Sustainability Policy[GRI 2-22]

Our commitment to sustainability is outlined in our Sustainability Policy, which has been approved by the Board of Directors. This policy addresses several key aspects, including:

- Environmental Protection
- Decent working conditions, diversity, and workplace freedom
- Health, occupational safety, and respect for human rights in business operations and the value chain
- Care for local community development and customer protection
- Responsible procurement and business ethics
- Gender equality in leadership and board independence
- Sustainable management, transparency, and risk governance

Access PT Vale Indonesia's Sustainability Policy via the following link:
https://vale.com/in/indonesia/tata-kelola-esg

PTVI's Three Sustainability Pillars

In carrying out operational activities, PT Vale prioritizes the principle of sustainability which not only includes efficiency and innovation in the mining business but also has a positive impact on the environment and society through three pillars:

Pilar 1: Sustainable Operator

As a responsible operator, PTVI strives to manage the entire cycle of mining and processing activities from planning, implementation, operation, to post-mining with the principle of sustainability. We apply international standards in occupational safety, resource efficiency, social and environmental impact management. In addition, PTVI is also committed to biodiversity conservation and ensuring that our operational activities are in line with sustainable mining practices.

Pilar 2: Local Development Catalyst

PTVI plays a catalytic role in regional development by fostering close collaboration with government, communities, local suppliers, and other business sectors. Through economic and social empowerment programs, we strive to create long-term value for surrounding communities to encourage the creation of independent and empowered communities. We believe that sustainability depends not only on mining and processing activities, but also on the development of alternative economies that allow communities to thrive even after the mine's operational period ends.

Pilar 3: Global Sustainability Agent

As part of the global ecosystem, PTVI contributes to national and international discussions and collective actions on sustainability. We actively adopt industry best practices, implement global ESG standards, and collaborate with various stakeholders to promote innovation in the responsible management of natural resources.

Sustainability Regulations and Standards

PT Vale Indonesia Tbk (PTVI) is committed to integrating globally recognized sustainability standards in its operations, in line with its role as a global citizen, particularly within the mining sector. We refer to a range of international standards, including:

- ICMM Principles
- ISO 14001:2015 (Environmental Management)
- ISO 45001:2018 (Occupational Health and Safety)
- ISO 50001 (Energy Management)
- ISO 26000 (Social Responsibility)
- SASB Metals & Mining Standards
- Sustainable Development Goals (SDGs)
- Global Reporting Initiative (GRI)
- OECD Due Diligence Guidance
- Initiative for Responsible Mining Assurance (IRMA)
- International Financial Reporting Standards (IFRS)
- IFC Sustainability Framework
- Other relevant standards

PTVI also ensures compliance with applicable national sustainability-related regulations, including:

- Law No. 40 of 2007 on Limited Liability Companies
- Ministry of Energy and Mineral Resources Decree No. 1827/K/30/MEM/2018 on Good Mining Practice Guidelines
- OJK Regulation No. 51/POJK.03/2017 on Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies
- Other relevant national regulations

Through alignment with these standards and regulations, PTVI aims to ensure responsible operations and deliver long-term value to society and the environment.

Stakeholder Engagement [POJK E.4][2-29]

As a company operating in a dynamic society and environment, PTVI realizes that business sustainability depends on the active involvement of stakeholders. This involvement is not only part of social responsibility, but also a strategy to create shared value. Therefore, it is an important part of PTVI's business policies and activities in order to obtain a social license to operate in addition to official permits from relevant authorities.

In realizing its role as a local development catalyst, PTVI is committed to building collaboration with local governments, communities, suppliers, and other business actors. This collaboration aims to support socio-economic and environmental development in PTVI's operational areas throughout the mineral cycle and to form cross-sector partnerships to create long-term positive impacts.

PTVI conducts careful stakeholder mapping across all operational areas to ensure inclusive involvement that covers all levels of society. This process considers various factors, such as the influence of stakeholders on the company, the level of urgency of the issues they raise, and the legitimacy of the demands submitted. On the other hand, PTVI also assesses how the company affects stakeholders, including geographic proximity, level of vulnerability, and the resulting social, economic, and environmental impacts. Based on the results of this mapping, we also develop relevant and optimal engagement methods and plans with each stakeholder to create harmonious relationships and provide benefits for all parties.

This approach is in line with international standards such as the 10th Principle of ICMM, ISO 26000 on Social Responsibility, AA1000 Stakeholder Engagement Standard, and GRI, IFC, and SASB guidelines. With this foundation, PTVI seeks to build transparent, strategic, and sustainable stakeholder engagement.

Stakeholder Type	Stakeholders	Engagement with Stakeholders	Related Material Topics	Company Response to Material Topics	Engagement Frequency
Internal Workforce	• Employees • Company Leadership • Contractors	The workforce is a key stakeholder driving the company's success through improved economic performance, safety, and environmental management. Their active participation supports production optimization, system implementation, and the achievement of long-term goals.	• Occupational Health and Safety • Human Resource Development • Industrial Relations and Labor Rights	• Development of the Company's Long-Term Plan (RJPP). • Production and sales efficiency and optimization. • Implementation of health protocols. • Implementation of Vale Production System (VPS), Contractor Safety Management System (CSMS), as well as HSE and environmental management certifications. • Implementation of Promote National Interest (PNI) and Local Business Initiative (LBI). • PKB guarantees freedom of association and strengthens communication and deliberation with labor unions. • Establishment of the Bipartite Cooperation Institution In accordance with applicable regulations as a forum for communication and consultation with labor unions to strengthen industrial relations and improve worker welfare.	• Periodic performance reports: quarterly, semi-annually, annually. • Regular evaluations as needed. • Negotiation and Preparation of Collective Labor Agreement (PKB) every 2 years.

Stakeholder Type	Stakeholders	Engagement with Stakeholders	Related Material Topics	Company Response to Material Topics	Engagement Frequency
Local Communities and Leaders	• Communities • Formal Leaders • Informal Leaders • Community Organizations • Non-Governmental Organizations (NGOs	Strong relationships with communities and local leaders ensure PTVI can address their concerns, gain support, and contribute positively to the local environment and economy.	• Resettlement • Community Human Rights • Community Engagement and Relations • Economic Impact	• Recruitment processes by PT Vale and through contractors. • Inter-Village Cooperation Forum (BKAD) for discussion, development, and evaluation of Community Development and Empowerment Programs (PPM). • Formation of a committee at the village level to ensure the implementation of the Community Development and Empowerment Program (PPM) is effective and in accordance with local needs. • Provision of complaint and complaint resolution mechanisms • Training and Capacity Development: Support for micro-enterprises and improving community skills through entrepreneur-ship training programs and expertise certification.	• Employee recruitment is conducted as needed. • BKAD Forum meetings are held at the beginning, middle, and end of the year, and as needed. • Routine dialogue and consultations are conducted regularly on a monthly basis or as needed in response to arising issues with relevant stakeholders

Stakeholder Type	Stakeholders	Engagement with Stakeholders	Related Material Topics	Company Response to Material Topics	Engagement Frequency
Government	• Central and Local Governments • Military and Police	Engagement with central and local governments ensures regulatory compliance, supports policy advocacy, and facilitates permits and approvals. Positive interactions with security forces also help ensure legal compliance and operational stability.	• Environmental Management • Good Corporate Governance (GCG)	• Fulfillment of tax and non-tax state revenue (PNBP) obligations. • Coordination and security cooperation with the military and police. • Performance reporting submitted to the relevant government agencies covers the following areas: • Financial: Submission of tax payment reports, Non-Tax State Revenue (PNBP), and annual financial statements. • Environment: Reports on water quality monitoring, emissions, hazardous waste (B3) management, land rehabilitation, and compliance with environmental impact assessments (AMDAL) and other environmental regulations. • Social: Documentation of CSR program implementation, community development initiatives, and local workforce management.	• Communication and discussion of IUP/IUPK with relevant authorities as needed. • Payment of taxes and PNBP according to the time set by the Government. • Periodically, PT Vale coordinates with the South Sulawesi Regional Police, Southeast Sulawesi Regional Police, and the XIV Hasanuddin Military Command, regarding security cooperation. • Quarterly, semester and annual performance reporting • Periodically, PT Vale coordinates with the Governor (South Sulawesi, Central Sulawesi and Southeast Sulawesi), and the Regent (East Luwu, Morowali, Koalaa) regarding social issues and company operations and investments.

Stakeholder Type	Stakeholders	Engagement with Stakeholders	Related Material Topics	Company Response to Material Topics	Engagement Frequency
				• Governance: Reports on regulatory compliance, the implementation of Good Corporate Governance (GCG), and findings from both internal and external audits.	
Public Sector	• Engagement with relevant State-Owned Enterprises (SOEs) • Collaboration with public sector partner organizations	Collaboration with the public sector enables PTVI to align socio-economic policies and participate in initiatives relevant to company operations.	• Environmental Management • Economic Impact	• Partnerships in strategic projects • Participation in public policy discussions • Cross-sector collaboration on sustainability initiative	• Quarterly, Semester and Annual Performance Reporting
Business Relationships	• Investors • Suppliers and Partners	Investors, suppliers, and partners play a role in supporting funding, ensuring a stable supply chain, and building strategic partnerships to enhance operational efficiency and company growth.	• Cybersecurity and Data Privacy • Responsible Production • Good Corporate Governance (GCG)	• Preparation of the Company's Long-Term Plan (RJPP). • Periodic reporting on company performance, such as Annual Report and Sustainability Report • Transparency and public access to disclosed information • Regular discussions and meetings • Distribution of guidelines or policies to supplier	• Quarterly, Semester and Annual Performance Reporting

Stakeholder Type	Stakeholders	Engagement with Stakeholders	Related Material Topics	Company Response to Material Topics	Engagement Frequency
Customers	Customers	Engaging customers helps understand their needs, improve product and service quality, and strengthen customer satisfaction.	• Responsible Production • Cybersecurity and Data Privacy	• Preparation of the Company's Long-Term Plan (RJPP). • Discussions and meetings with customers	• At least once a month.
Media and Academia	• Media • Academia • NGOs • Other Entities	Interaction with media and academia supports transparency, shapes positive public perception, and provides research-based insights for better decision-making.	• Environmental Management • Good Corporate Governance (GCG)	• Publication and dissemination of public information through press conferences, news releases, and public expos. • Collaboration on research and fulfillment of social and environmental responsibili-ties (TJSL).	• Conducted as needed.

ESG Risk and Opportunity

In response to the evolving business landscape and increasing complexity of environmental, social, and governance (ESG) issues, PT Vale Indonesia Tbk (PTVI) is committed to proactively managing risks and opportunities arising from these aspects. Using a data-driven approach and in-depth analysis, PTVI regularly updates its ESG risk assessments to identify potential challenges that may affect its operations and business strategy.

In 2024, PTVI continued this effort by conducting a more comprehensive assessment of ESG risks and opportunities. This assessment builds upon the one conducted in 2022, with an expanded scope and reference to the latest internal and external information sources.

This ESG risk and opportunity assessment also forms part of PTVI's double materiality analysis, helping determine the extent to which ESG factors influence the company's financial materiality.

Stages of ESG Risk and Opportunity Assessment

1. Compilation and Identification of ESG risks and Opportuniities

At this stage, PTVI collects and analyzes risk-related data across its three main operational areas: Sorowako, Bahodopi, and Pomalaa. In addition to compiling existing risks, PTVI also identifies new risks and opportunities based on trend analysis, expert opinions, and relevant ESG and sustainability-relate developments. The outcome is a more comprehensive and up-to-date list of ESG risks and opportunities covering the company's entire operations.

2. Assesment of Risks and Opportunities

To determine the most significant ESG risks and opportunities, PTVI assesses each item based on likelihood, financial consequences, risk appetite, risk prioritization, and potential impact on short-, medium-, and long-term financial performance. This process enables the company to identify the most critical issues that could significantly affect its business.

3. Mitigation and Recommendations

Based on the assessment results, PTVI has formulated a mitigation plan to minimize risks and maximizing the utilization of opportunities through strategic recommendations.

Results of ESG Risk and Opportunity Assessment

Based on a comprehensive assessment of ESG risks and opportunities using ISO 31000, IFRS S1 and S2 standards, and group discussions with company management, three focus areas in ESG, namely:

1. Engagement, Participation, and Interaction with the Community

Engagement, participation, and interaction with the community are strategic priorities that we address earnestly and consistently. We believe that every operational activity of the company should create real added value for our key stakeholders. Therefore, PT Vale Indonesia is committed—through social investment initiatives—as a proactive effort to open new opportunities for surrounding communities, prepare them to be actively integrated into the company's business value chain, and drive significant positive impacts on the environment to improve their quality of life and support sustainable post-mining conditions.

We acknowledge the possibility of information imbalances in our relationships with stakeholders, which is why we always prioritize open dialogue and active engagement with relevant parties. Throughout these activities, we prioritize human rights to uphold human dignity and ensure social sustainability.

2. Emission and Energy Management

The possibility that PTVI's emissions and energy consumption do not align with regulatory requirements or stakeholder expectations can lead to higher operational costs, legal risks, and reduced competitiveness. Emissions from mining and processing operations contribute to climate change and poor air quality. Effective management of these issues requires investment in renewable energy, improved operational efficiency, and the adoption of low-carbon technologies.

PTVI views carbon emissions not only as a challenge but also as a business opportunity. Reducing emissions often aligns with improving energy efficiency, which in turn lowers production costs. The Company's commitment drives the de-carbonization agenda while also opening opportunities for sustainable business partnerships. This vision is reflected in the construction of new HPAL processing facilities with our partners in Pomalaa, Bahodopi, and Sorowako, designed to minimize energy use and carbon output. Notably, one HPAL plant in Central Sulawesi is planned to operate as a net-zero facility from day one.

3. Corporate Governance

This aspect carries risks related to regulatory compliance, transparency gaps, and stakeholder trust. Poor governance could damage PTVI's reputation and business sustainability.

To mitigate these risks, PTVI continues to strengthen its governance system by instilling the principles of transparency, accountability, and integrity throughout all business processes. Initiatives such as the implementation of anti-corruption policies, empowering the role of the Board of Commissioners, and forming a Sustainability Committee. PTVI is also enhancing its whistleblowing system to ensure inclusive and accessible reporting for stakeholders.

Beyond risk, this assessment also identifies strategic opportunities that can be leveraged:

1. Partnership related to Biodiversity

PT Vale Indonesia has established strategic partnerships with various universities, research institutions, and non-governmental organizations (NGO's) to support programs focused on protecting endemic species and rehabilitating natural habitats. The scientific approach we apply aims not only to enhance the effectiveness of conservation efforts but also to strengthen the company's credibility among stakeholders, including regulators and local communities.

2. Sustainable Management and ESG Performance

Emphasizing sustainable management and strong ESG performance can contribute as a competitive differentiator. By integrating ESG principles into its operations and business strategy, PTVI can attract responsible investors, strengthen customer relationships, and foster stakeholder trust.

3. Emission dan Pollution Control

Investing in emission and pollution control technologies not only meets regulatory requirements but also creates opportunities to improve operational efficiency and reduce long-term costs.

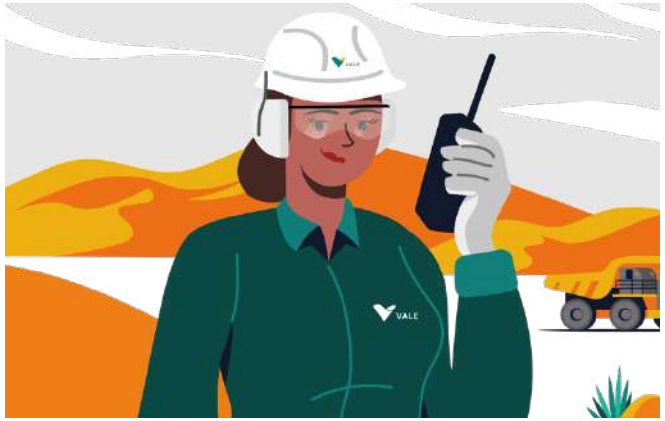
The assessment results were discussed with the Board of Directors to obtain strategic direction and ensure alignment with corporate goals. Additionally, these findings were used as key inputs in the material topic determination process, integrated with impact materiality, and included in the materiality matrix.

Implementation of Double Materiality for Effective Impact Management and Strategic Planning [GRI 3-1]

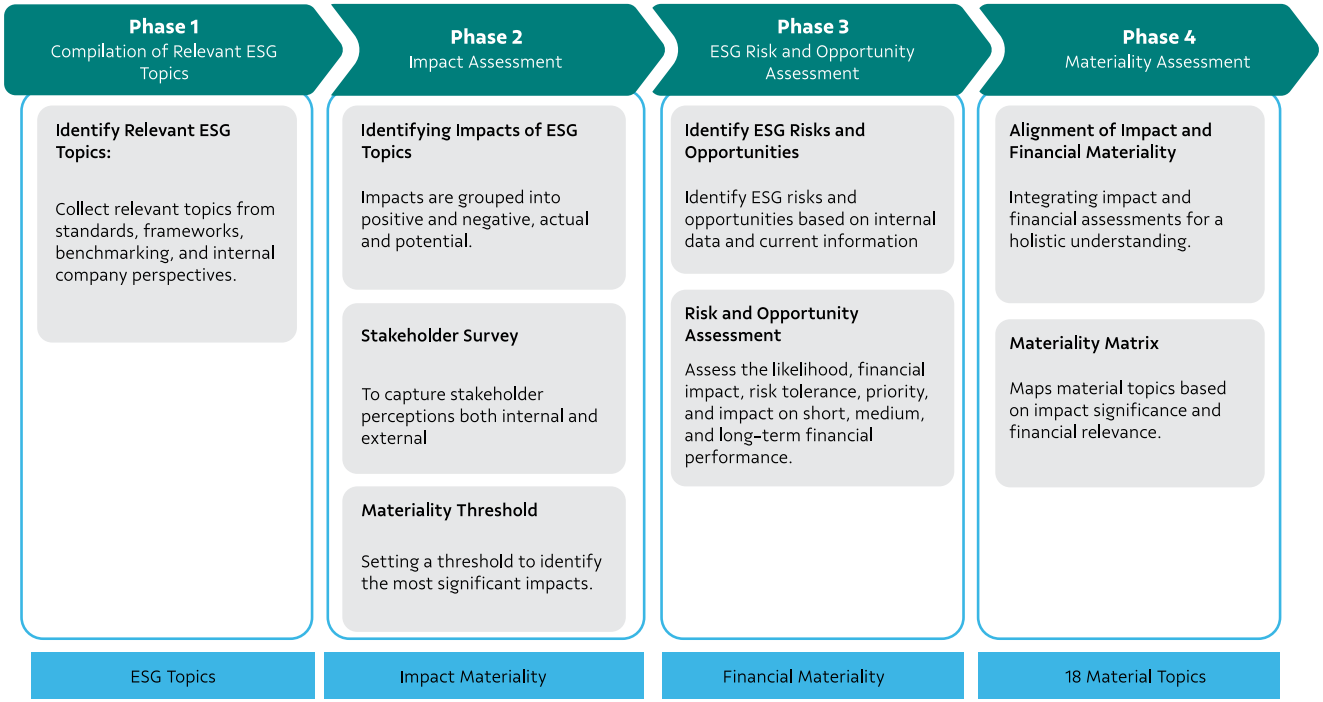
At PT Vale Indonesia, we understand that sustainability is not just about how our business impacts the environment and communities, but also how external factors—like regulations, climate change, and market dynamics—can affect the resilience of our business.That's why, in this reporting year, we adopted a double materiality approach. This means we look at sustainability from two key perspectives; Impact Materiality and Financial Materiality.

This approach is essential for PT Vale Indonesia to meet stakeholder expectations and comply with global regulations that demand greater transparency in managing sustainability impacts and financial risks.

By considering both perspectives, we can make better strategic decisions—ones that not only help manage risks and ensure compliance but also create long-term value for both the company and society.



Double Materiality Process



PT Vale Indonesia began the ESG topic identification process by compiling a list of relevant topics based on global standards such as GRI, SASB, ICMM, MSCI, and Sustainalytics, as well as benchmarking against industry best practices.

This process also took into account the current business context through internal discussions with management. Each topic is then analyzed to understand both the actual and potential impacts on society and the environment, while also engaging internal and external stakeholders through surveys to ensure relevance and shared expectations.

As part of the double materiality approach, we also evaluate the risks and opportunities related with ESG factors in relation to the company's financial performance. The results of this impact and financial assessment are integrated into a materiality matrix to determine key priorities.

Through this double materiality process, we have identified 18 material topics that are critical to PT Vale Indonesia's operations. These findings will serve as foundation for formulating policies, establishing sustainability targets, and designing strategic programs that align with PTVI's long-term vision.

PT Vale thematically groups 18 sustainability topics into 9 material topics, namely:

1. Good Corporate Governance (GCG)
2. Water and Effluent Management
3. Waste Management (hazardous and Non-hazardous)
4. Emission and Energy Management
5. Biodiversity and Land Use
6. Occupational Health and Safety
7. Industrial Relations and Labor Rights
8. Community Engagement and Relations
9. Human Rights in the Community

Management of Material Topics[3-2]

Environmental

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Biodiversity and Land Use	**Land Closure and Rehabilitation.** Mine closure can have significant impacts on the environment and surrounding communities. PT Vale Indonesia (PTVI) implements progressive reclamation to restore ecosystems in post-mining areas and support the socio-economic sustainability of communities, thus fostering the development of self-reliant and empowered communities after mining activities.	Risks related with this topic: • Economic and social setback in areas surrounding the mine following closure due to a lack of alternative economic resources. • Low-quality rehabilitation leading to diminished environmental ecosystem quality. Opportunities related to this topic: Effective land closure and rehabilitation enhance the company's reputation, ensure compliance with regulations, and manage environmental risks. This also creates opportunities for the repurposing of former mining land, supports sustainability, and builds trust among stakeholders, including the government, regarding future mining potential.	Operational Area: Sorowako	Management of this material topic can be found in the Water and Effluent Management section on page 106-112
	Biodiversity Mining and processing operations risk disrupting local habitats and species. PTVI is committed to protecting and restoring biodiversity in its operational areas.	Risks related with this topic: Habitat loss and environmental degradation due to land clearing, leading to tensions with NGOs regarding ecosystem impacts. Opportunities related to this topic: Enhancing environmental value and the company's reputation through habitat protection and restoration efforts, as well as conservation collaborations to develop public trust and stakeholder support.	Operational Area: Sorowako	Management of this material topic can be found in the Post-Mining Management and Biodiversity Protection on page 106-112.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Water and Effluent Management	**Water and Effluent Management** Water usage in mining and processing operations can affect supply for communities and ecosystems. PTVI implements water efficiency and effluent management to prevent negative impacts on water resources. Discharge water from mines/ effluents has the potential to pollute natural water bodies, especially due to high turbidity levels and chromium content, which may pose health risks to the surrounding community.	Risks related with this topic: Reduced water quantity and quality due to operations and effluent production, potentially contaminating shared water sources with surrounding communities. Opportunities related to this topic: Optimal water and effluent management in the mining sector promotes operational efficiency, ensures compliance with regulations, and strengthens the company's reputation among stakeholders. Furthermore, this approach strengthens resilience to the impacts of climate change and creates opportunities for sustainable water use, including supporting the needs of surrounding communities.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Water and Effluent Management section on page 98–100.
Waste Management (Hazardous and non-Hazardous)	**Waste Management (Hazardous and non-Hazardous)** Waste produced from mining and nickel ore processing activities, whether hazardous (B3) or non-hazardous, has the potential to pollute the environment and pose health risks to communities if not managed properly. Therefore, waste management becomes a material aspect for PTVI, ensuring regulatory compliance and reducing environmental impacts through the implementation of technologies that support effective waste minimization and treatment.	Risks related with this topic: Improper waste management can lead to water, soil, and air pollution, potentially causing health issues for surrounding communities. Non-compliance with environmental regulations may result in legal sanctions, fines, or operational suspension. Opportunities related to this topic: Effective management of hazardous (B3) and non-hazardous waste opens opportunities for mining companies to contribute to the circular economy by recycling and utilizing waste as alternative raw materials. Waste can be processed or reused to produce value-added products that not only reduce environmental impact but also provide economic benefits. This practice also strengthens ESG performance and creates social value through collaboration with the community.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Waste Management section on page 101–104.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
	Residue Management Looking forward, there is potential for indirect impacts from PTWI'S business involved in MHP production, which is part of the downstream strategy to support the battery industry's growth. To address this, leftover mineral processing sludge from partners like Alkan is managed together to ensure it meets environmental standards in line with GISTM commitments.	Risks related with this topic: Environmental contamination (water, soil, air) due to leaks or failures in tailings management systems, leading to long-term impacts on ecosystems and community health. Opportunities related with this topic: Sustainable tailings management presents significant opportunities for mining companies to contribute to the circular economy by utilizing waste as alternative raw materials, such as construction materials or additional metal sources. This approach not only reduces environmental impact but also improve operational efficiency and boost the company's reputation among stakeholders.	• Operational Areas: Bahodopi, Pomalaa	Management of this material topic can be found in the Waste Management section on page 101–104.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Emissions and Energy Management	**Emissions and Energy Management** Although PTVI has utilized electricity from three hydroelectric power plants, mining and nickel processing activities in Sorowako still produce carbon emissions. PTVI continues to improve energy efficiency and reduce emissions to minimize environmental impact, comply with regulations, and support the transition to more sustainable operations.	Risks related with this topic: Failure to meet Vale's 2050 Net Zero Emissions roadmap targets. Pressure from buyers, partners, and other stakeholders regarding carbon emissions from the produced nickel Opportunities related to this topic: Effective emission and energy management presents opportunities for mining companies to reduce operational costs through energy efficiency and a transition to renewable energy sources. These practices also support regulatory compliance, elevate company's reputation, and enable access to green financing. In addition, technological innovation in energy and emission management can create added value and reduce environmental impact.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Emission and Energy Management section on page 92–97.
	Climate Adaptation and Resilience Climate change can affect mining and processing operations, while the industryindustry also has a responsibility to mitigate emissions. One of the factors that may significantly impact PTVI's business continuity is rainfall. PTVI relies on water from Lake Matano and Lake Towuti to support the operations of its hydroelectric power plants. During prolonged dry seasons, electricity production capacity decreases, ultimately affecting PTVI's production levels.	Risks related with this topic: Operational disruptions due to climate change or extreme weather events such as floods, droughts, or storms. Opportunities related with this topic: Mining companies have the potential to generate revenue through the sale of carbon credits by implementing emission mitigation measures and adopting environmentally friendly technologies, which enhance efficiency and reputation.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Climate Adaptation and Resilience section on page 89–91

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
	To maintain long-term operational sustainability, PTVI implements adaptation strategies and continuously monitors environmental conditions around its operational areas that may influence the company's activities, both directly or indirectly.	Collaboration with local communities and stakeholders, as well as the utilization of local knowledge in climate change,adaptation and mitigation can support sustainability and demonstrate the company's commitment to social and environmental responsibility		
-Environmental Management System **-Waste Management (Hazardous and Non-hazardous)** **-Emissions and Energy Management** **- Biodiversity and Land Use**	**Environmental Management System** Without robust environmental management, operations risk non-compliance with regulations and sustainability. PTVI implements ISO 14001:2015 standards and ICMM principles to ensure responsible mining and processing practices.	Risks related with this topic: Inconsistent application of ISO 14001:2015 standards across PTVI operations outside Sorowako, potentially leading to regulatory non-compliance and reputational damage. Opportunities related with this topic: An effective environmental management system helps mining companies improve operational efficiency, comply with regulations, and strengthen the company's reputation while promoting sustainable innovation. Furthermore, an environmental management system enables more proactive management of environmental risks and supports long-term sustainability	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Management of Environmental Material Issues section on page 83.
	Responsible Production PTVI is committed to conducting responsible by extracting mineral efficiently, maximizing the utilization of extracted material to achieve optimal value, minimizing environmental and social impacts and adhering to sustainability standards	RIsks related to this topic: Inefficient operations may lead to resource wastage without delivering optimal benefits. Increased environmental and social impacts resulting from suboptimal mineral utilization, including excessive waste, pollution, deforestation, and potential conflicts with local communities.	Operational Areas Sorowako, Bahodopi, Pomalaa	PTVI approaches of this material topic can be found in the Efficiency and Mineral Conservation in Nickel Processing Issues section on page 84.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
		Opportunities related to this topic: A responsible production approach encourages green innovation, builds a good reputation,, and enhances the competitiveness of mining companies in a market that increasingly demands sustainable and transparent practices		

Social

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Human Rights of the Community	**Resettlement** Operational activities may affect surrounding communities, particularly regarding land access for operational activities. Addressing land issues, including relocation and recognition of social rights, poses significant challenges for companies. PTVI aims to carry out land acquisition and resettlement in a fair and equitable manner, adhering to internationally accepted standards and ensuring a transparent grievance mechanism is in place.	Risks related to this topic: Community displacement may lead to dissatisfaction or conflict, driven by the disruption of cultural and social dynamics, as well as resistance to land access for exploration and mining. Opportunities related to this topic: A fair and transparent resettlement process offers an opportunity for mining companies to build strong relationships with communities and stakeholders, strengthen the company's reputation, and ensure smooth operations by minimizing potential conflicts.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	Management of this material topic can be found in the Relocation of Land Rights and Resources section on page 141.
	Human Rights of the Community: Mining and processing activities may impact fundamental human rights, such as access to clean water and the right to express opinions. PTVI is committed to upholding the rights of the community and has established an accessible grievance mechanism for all stakeholders.	Risks related to this topic: Disagreements over the use of natural resources may cause dis-satisfaction among local populations, allegations of human rights violations, unlawful occupation, and financial risks related with land acquisition and compensation. Opportunities related to this topic: Protecting the human rights of communities surrounding mining operations enables the company to build a positive reputation, comply with international regulations, and manage social risks. This approach also promotes collaboration with local communities, strengthens ESG performance, and facilitates access to sustainable financing, thereby supporting the company's long-term sustainability.	• Operational Areas: Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section Respect for Human Rights, page 138.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Community Engagement and Relations	**Community Relations** Good relationships with local communities is key to operational sustainability. PTVI promotes open dialogue and supports local well-being through targeted social programs.	Risks related to this topic: Land disputes, community demands related to employment and CSR-PPM programs, as well as allegations of human rights violations. In addition, social tensions arising from the presence of foreign workers, unlawful occupation, or operational disruptions may lead to instability and harm relations with local communities. Opportunities related to this topic: Building stronger and mutually beneficial relationships with the local community through open communication and relevant CSR programs.	• Operational Areas: Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section Community Engagement/Relations, page 143.
	Economic Impact Operational activities in mining and processing contribute to the local economy; however, they may also present sustainability challenges in the post-operational phase. PTVI is determined to supporting long-term economic development aimed at encouraging stable socio-economic self-sufficiency in the post-mining period period.	Risks related with this topic: Meeting local worker demands, limited workforce diversity, and pressure from major customers regarding nickel supply may pose occupational safety risks due to inadequate operational capacity. Opportunities related to this topic: Mining companies can drive local economy through job creation, infrastructure development, and the utilization of post-mining land for agroforestry or local enterprises. Additionally, the growth of the electric vehicle market, investments in renewable energy, and research into nickel supply chains present opportunities for downstream processing and value enhancement within operational regions.	• Operational Areas: Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section Financial Performance and Economic Contribution page 25.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Occupational Health and Safety	**Occupational Health and Safety** Worker and community safety is a top priority. PTVI enforces strict HSE standards to prevent workplace accidents and illnesses	Risks related with this topic: Workplace accidents, occupational illnesses, or safety incidents that endanger workers, surrounding communities, and disrupt operations. Failure to enforce strict HSE standards may result in serious injuries, legal claims, financial losses, and reputational damage. Opportunities related with this topic: Implementing strict and innovative HSE standards can create a safe and healthy work environment, improve productivity, and ensure compliance with regulations is essential. Moreover, strong occupational health and safety (OHS) practices improve employee satisfaction and loyalty, while also strengthening the company's reputation among stakeholders	• Headquarters • Operational Areas : Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section Commitment to Employee Health and Safety page 127.

Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Industrial Relations and Labor Rights	**Human Resource Development** The mining and processing industry requires a competent workforce to maintain operational continuity and enhance competitiveness. PTVI continues to invest in developing its people to improve productivity, skills, and competitiveness.	Risks related to this topic: A shortage of competent and qualified workers, especially in facing the increasingly complex challenges of the mining industry. A lack of investment in developing human capital can lead to low productivity, skill gaps, and an inability to adapt to technological and regulatory changes. Opportunities related to this topic: • Training in technical skills, leadership, and sustainability awareness can improve productivity and innovation. • As the first mining company with a Professional Certification Institution (LSP), PTVI serves as a "School of Nickel," producing top talent for the industry, strengthening workforce competitiveness, and elevating the company's reputation.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section on Employee Training and Development page 122.
	Industrial Relations and Labor Rights a healthy industrial relationship supports business continuity while improving labour's welfare. PTVI is committed to implementing fair labor practices, respecting labor rights, and ensuring freedom of association. PTVI also promote positive relationships with workers through transparent social dialogue, effective dispute resolution mechanisms, and the involvement of labor unions in discussions and the formulation of the Collective Labor Agreement (PKB).	Risks related to this topic: Tensions in industrial relations, such as conflicts with labour unions, wage increase demands, or dissatisfaction regarding working conditions. Opportunities related to this topic: Protecting labour rights fairly builds employee loyalty, boosts company reputation, drives higher productivity, and creates a safe environment for all stakeholders.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	The management strategy for this material topic can be found in section Protection and Fulfillment of Workers' Rights page 117.

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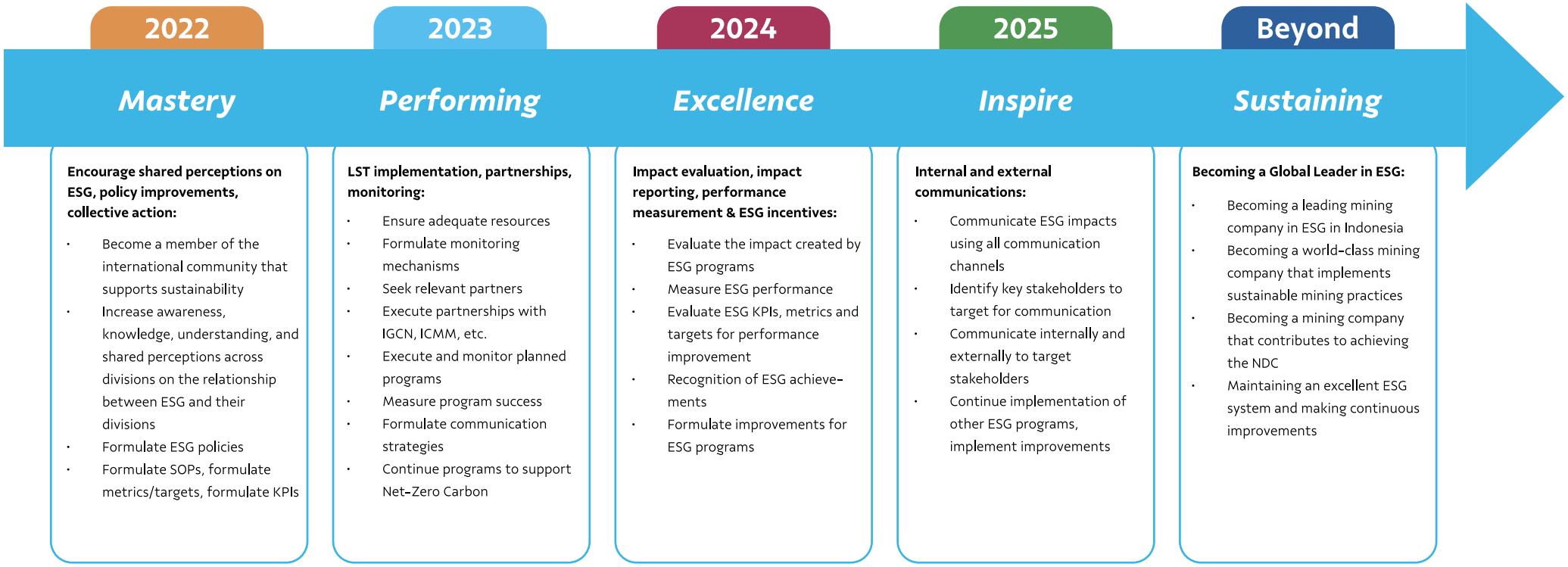
Material Topic	Related Sustainability Topic	Risks and Opportunities Related to the Topic	Scope	Management of Material topic
Good Corporate Governance (GCG)	**Good Corporate Governance (GCG)** Strong governance ensures transparency, accountability, and legal compliance. PTVI applies GCG principles to maintain business integrity.	Risks related with this topic: Weak governance practices may lead to corruption scandals, abuse of authority, or ethical violations, damaging the company's reputation and disrupting operations.: Opportunities related with this topic: Good governance can strengthen investor, regulator, and community trust, opening opportunities for better funding and strategic partnerships.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	The PTVI approach to managing this material topic is further explained in the section Leading Through Ethical Governance on page 66.
	Cybersecurity and Data Privacy Data protection is increasingly critical in business operations. PTVI strengthens cybersecurity to prevent data breaches and maintain stakeholder trust.	Risks related with this topic: Cyberattacks, data breaches, or privacy violations may result in financial losses, operational disruptions, and reputational damage. Failure to protect sensitive company, employee, or partner data may lead to legal claims, regulatory sanctions, and loss of stakeholder trust. Opportunities related with this topic: Implementing the latest security technologies and cybersecurity awareness training for employees can reduce risks and enhance operational resilience.	• Headquarters • Operational Areas: Sorowako, Bahodopi, Pomalaa	The PTVI approach to managing this material topic is further explained in the section Data and Digital Information Security on page 81.

ESG Roadmaps



In 2024, we are committed to achieving Excellence in our ESG initiatives through a more comprehensive and integrated approach. We regularly evaluate the impact of our ESG-related programs. The in-depth and detailed evaluation results can be found in the relevant chapters of this report.

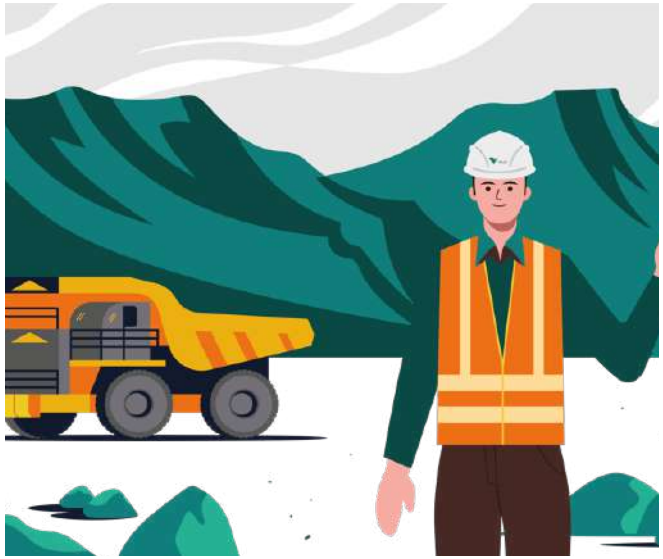
We carefully review performance measurements, including KPIs, metrics, and targets, to identify areas for improvement and to ensure alignment with both short-term and long-term goals. This ensures that every initiative we undertake contributes meaningfully to our sustainability objectives while keeping our strategy relevant and effective.

Further details on our progress and commitments are provided in the corresponding chapters. We continue to innovate by developing and implementing improvements that strengthen our ESG programs and support sustainable growth. In the coming year, we plan to update and enhance our ESG roadmap to ensure that our strategy remains aligned with current developments and continues to deliver a lasting positive impact.

Sustainability Governance [POJK51-E.1]

Strong sustainability governance ensures compliance, transparency, and effective ESG risk management. With a structured system in place, the company can integrate sustainability principles into its business strategy, support long-term decision-making, and create value for both society and the environment.

The sustainability governance structure at PT Vale Indonesia Tbk includes the Board of Commissioners, the Board of Directors, the Sustainability Committee, the Sustainability Department, and ESG Materiality Owners. The involvement of all these layers ensures consistent implementation of sustainability practices, supports the achievement of ESG targets, and reinforces accountability in managing social and environmental impacts.



** the focus group may change from time to time, depending on specific agenda or goals that the company want to achieve*

As an integral part of the governance structure, the Sustainability Committee was established as a strategic forum to strengthen policy direction and oversight on ESG-related issues at the corporate level. The Committee operates under the coordination of the Board of Directors and the supervision of the Board of Commissioners, which play a central role in embedding the comprehensive integration of sustainability principles into the company's overall business strategy.

The committee is chaired by the Chief Sustainability and Corporate Affairs Officer (CSCAO). Its members include relevant members of the Board of Directors (BoD), along with senior leaders from the Strategy and Business Development, Environment, Operations, Legal, and Compliance departments. Other department heads may be included as needed.

The Sustainability Committee holds monthly meetings to monitor sustainability progress and ensure it aligns with the company's values, focusing on:

1. Identifying and discussing significant issues related to Environment, Social, and Governance (ESG) that are critical to the organization.

2. Reviewing and monitoring the progress of key ESG initiatives, ensuring consistency with the company's aspiration to lead in sustainable nickel production globally.

3. Ensuring that sustainability and ESG principles are comprehensively integrated into the company's business strategy, covering ongoing operations, current projects, and future investment plans.

Meanwhile, discussions related to ESG KPIs are conducted as needed, involving relevant parties or those responsible for material ESG topics.

All discussion outcomes and/or recommendations from the Committee meetings are documented and presented in the Board of Directors (BoD) to ensure that the decision-making process is well-informed and aligned with the company's business objectives.

Sustainability Performance Monitoring and Evaluation

Monitoring and reporting play a vital role in ensuring accountability, transparency, and continuous improvement. Without an effective monitoring system, potential risks may go unnoticed, and the success of sustainability programs becomes difficult to measure objectively.

To address this, PT Vale Indonesia Tbk has implemented a structured sustainability performance evaluation system to ensure ESG programs are aligned with the established roadmap. Progress is tracked through Key Performance Indicators (KPIs) defined by each department and reported regularly, either weekly or monthly. In addition, PTVI provides external reporting on specific topics in accordance with applicable regulations or upon request from relevant stakeholders.

PT Vale Indonesia also regularly submits a Communication on Progress (CoP) as part of its active participation in the UN Global Compact (UNGC). Through this CoP, we disclose performance and progress in implementing UNGC principles on human rights, labor, the environment, and anti-corruption.

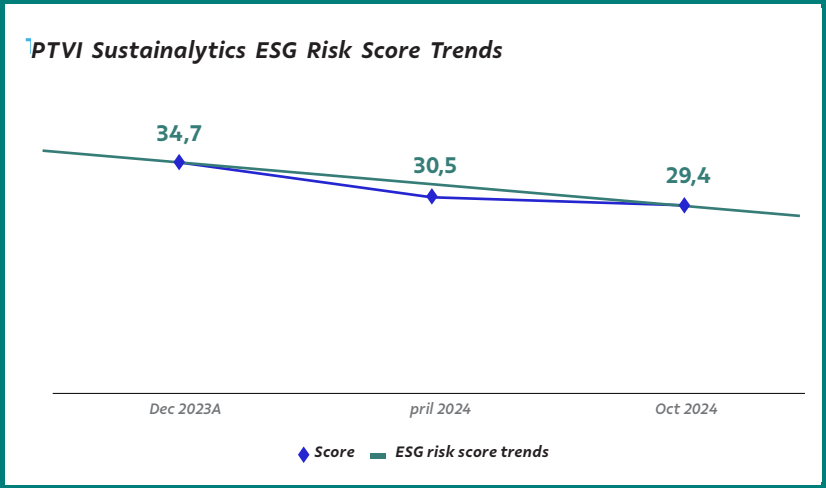
To support more comprehensive performance monitoring, the Sustainability Department has developed an ESG Dashboard that compiles and updates ESG performance data on a regular basis. This dashboard facilitates internal tracking while ensuring compliance with applicable regulations and standards.

In addition to internal evaluation, the ESG performance of PT Vale Indonesia Tbk (PTVI) is also assessed by external rating agencies such as Sustainalytics, MSCI, CDP, and S&P. Government authorities also oversee compliance with applicable regulations. Feedback from external parties is used to refine the Company's ESG strategy.

One of the key rating agencies actively assessing PTVI's ESG performance is Sustainalytics. The assessment is based on two main dimensions: exposure (the level of material ESG risk) and management (the company's ability to manage those risks), using the following rating methodology:

Skor Risiko	Kategori	Deskripsi
0–10	*Neligible*	Considered to have negligible ESG risk
10–20	*Low*	Considered to have low ESG risk
20–30	Medium	Considered to have medium ESG risk
30–40	High	Considered to have high ESG risk
>40	Severe	Considered to have severe ESG risk

In the October 2024 score update, PT Vale received an ESG Risk Rating of 29.4 from Sustainalytics, placing the company in the Medium Risk category. This result reflects an improvement from the previous assessment and serves as motivation for the company to continue strengthening ESG risk management going forward.



PTVI recognizes the challenges in implementing a sustainable performance evaluation system, including data management complexity, limited resources, and dynamic regulatory changes. To address these challenges, PTVI continues to invest in technology development and capacity building to ensure the evaluation system remains relevant and effective.

We also consistently provide ESG-related training for employees to enhance their understanding of their roles in achieving sustainability targets. In addition, PTVI maintains open dialogue with communities to receive feedback and strengthen the implementation of social and environmental programs.

Responsible Supply Chain [GRI 3-3]

PT Vale recognizes that the responsibility for sustainability extends beyond the company's internal operations and encompasses the entire value chain, including its supply chain. A significant portion of environmental, social, and governance (ESG) impacts originatesoriginate from the activities of suppliers and business partners. Therefore, a responsible supply chain is a key element of our sustainability strategy.

Responsible Procurement Practices

PT Vale applies responsible procurement practices by setting clear expectations and requirements through the Supplier Code of Conduct. This code outlines compliance with applicable laws, regulations, and international standards, including principles of human rights, labour rights, and anti-corruption. Our anti-corruption policy strictly prohibits all forms of bribery, gratuities, and unethical practices in business relationships with suppliers.[GRI 205-2]

We also operate an e-Procurement system, a web-based platform that covers all procurement stages, from vendor registration and pre-qualification to tender processes and contract management. This system is designed to enhance transparency, data accuracy, and efficiency throughout the procurement process.

Supplier Due Diligence and Assessment [GRI 414-1]

In addition to ensuring a transparent process through digital systems, we conduct due diligence during the pre-qualification stage to integrate ESG values into supplier selection. These assessments mainly focus on governance aspects, such as regulatory compliance and anti-corruption approaches. This process ensures the integrity, transparency, and accountability of prospective suppliers as the foundation for long-term sustainable partnerships.

For registered suppliers, we conduct periodic evaluations. We review changes in qualification and classification, as well as performance records in previous years.

Commitment Through Contracts and Supplier Code of Conduct

PPT Vale reaffirms its commitment to sustainability through the implementation of a Supplier Code of Ethics and Conduct, that applies to all supplier partners. These provisions are explicitly stipulated in every cooperation agreement as mandatory

As a concrete implementation, we require all suppliers to uphold human rights and adhere to applicable labor standards. We require all suppliers to respect human rights and adhere to labor standards. PT Vale does not tolerate any violations of workers' rights to freedom of association and collective bargaining. Furthermore, we strictly prohibit child labor, forced labor, and compulsory labor in all operational and supply chain activities.[GRI 407-1][GRI 408-1][GRI 409-1]

To ensure compliance with these standards, we implement regular monitoring and evaluation mechanisms. Compliance with the Supplier Code of Conduct and contract provisions is a legal requirement that cannot be negotiated. Through this approach, we strengthen corporate governance practices and ensure that all business partners contribute to the achievement of sustainability objectives.[GRI 414-2]

Supplier Performance Monitoring and Evaluation

We periodically evaluate the performance of suppliers and contractors, assessing not only technical performance but also their environmental management and potential social impacts. In 2024, evaluations were conducted for 100% of new suppliers and business partners.

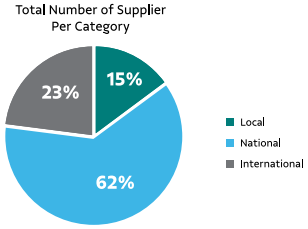
Based on the evaluation results, no operations or suppliers were identified to pose significant risks related to restrictions on freedom of association and collective bargaining, use of child labor, or practices of forced or compulsory labor.

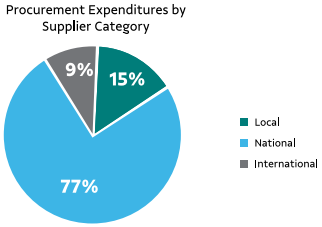
During the reporting period, no significant adverse social impacts were identified in the supply chain that led to contract termination. However, in cases of non-compliance, PT Vale takes proportionate corrective actions, including reviewing the continuation of partnerships with the relevant supplier.

We also encourage suppliers to actively monitor and continuously improve their performance. Our primary focus areas include risks and potential impacts on human rights, occupational health and safety (OHS), and biodiversity. Close collaboration with partners forms a critical foundation for building responsible sourcing practices throughout the supply chain.

Support for Local Suppliers [GRI 204-1]

As a reflection of its commitment to supporting regional and national economic development, PT Vale in 2024 collaborated with 151 local suppliers, which account for 15% of the total number of suppliers, and 632 national suppliers, accounting for 62% of the total. Local suppliers are defined as companies that have operated in East Luwu Regency for a minimum of 10 years, with company ownership registered under an East Luwu ID card (KTP), including valid company establishment documents.





		Local	National	International	Total
Total Number of Supplier Per Category	*Total*	151	632	235	1018
	%	15%	62%	23%	100%
Procurement Expenditures	*US$*	116.623.037,00	611.153.381,00	68.768362,00	796.544.780,00
	%	15%	77%	9%	100%

Further details regarding supplier engagement proportions can be found in the Data Tables section, under Responsible Supply Chain.

Upholding Sustainability Principles in the Supply Chain

As a continuation of our evaluation and oversight efforts, we reinforce our sustainability commitment through a policy that prohibits partnerships with parties proven to have violated human rights. Disciplinary actions are imposed on suppliers, contractors, third parties, or internal entities found to be in violation, as a demonstration of our consistency in upholding sustainability principles.

As part of its preventive efforts and compliance improvement, PT Vale regularly walks suppliers through its Suppliers Code of Ethics and Conduct. At the beginning of every contract, suppliers attend a kick-off meeting that discuss key agreement points, including ethical provisions and sanctions for violations. This initiative shows PT Vale's commitment to run responsible business practices and help partners to meet applicable sustainability standards.[GRI 2-24]

Responsibility For Product/Service Development

PT Vale's production processes and nickel matte products comply with global standards, including the requirements of the Restriction of Hazardous Substances (RoHS) and ISO 17025:2008, both of which are recognized in the European Union market. Our products have also successfully undergone hazard evaluations based on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), a system adopted by the United Nations and implemented in Indonesia through the Ministry of Industry Regulation No. 23 of 2013. [POJK51-F.27]

As an intermediate product, our nickel matte plays a strategic role as a critical raw material in our customers' downstream processes, thereby posing no direct impact on consumers or the environment. The safety and quality of our products are evidenced by the absence of complaints related to health impacts on employees, workers, or buyers during the reporting period. Furthermore, no products were recalled at the request of buyers in 2024, underscoring the reliability and consistent quality we uphold.[POJK51-F.28] [POJK51-F.29]

Not only in terms of production, but we are also committed to maintaining the quality of our services to customers. Product purchases are made through long-term contracts; therefore, a separate customer satisfaction assessment mechanism is not implemented. Instead, PT Vale conducts regular weekly meetings with customers to address product-related matters. These forums also functions as a platform to identify and promptly address any issues or concerns that may arise. Through this approach, we ensure open and responsive communication, as well as the timely implementation of improvements, in order to maintain a professional and consistent standard of service.[POJK51-F.30]

Product/Service Innovation and Development

PT Vale focuses on developing nickel products in matte products and plans to launch high-quality nickel products that support the energy transition in the coming years, including:

Mixed Hydroxide Precipitate (MHP):
This product will be produced through the limonite nickel refining and processing facilities originating from the Sorowako Limonite, Bahodopi, and Pomalaa Projects. MHP production capacity is targeted to reach 60 thousand tons per year for Sorowako and Bahodopi, and 120 thousand tons per year in Pomalaa. The HPAL plant in Pomalaa, which is being developed together with Ford Motor Co. as a strategic partner, is currently entering the main contractor mobilization stage and is targeted for completion in 2026. Meanwhile, construction of the HPAL plant in Bahodopi is planned to begin in the fourth quarter of 2025 and is expected to be completed in 2026. As for the Sorowako Limonite Project, the plant is targeted to ship the first ore in the third quarter of 2026.

Leading Through Ethical Governance

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PT Vale's Approach to Managing Material Governance Issues

We believe that good governance is the fundamental foundation for achieving sustainability goals and long-term success. Our commitment to conducting ethical, transparent, and responsible business practices is rooted in the principles of Good Corporate Governance (GCG), which are consistently implemented across all levels of the organization. Every individual within the company—from the Board of Commissioners, the Board of Directors, management, employees, to other related parties—is required to comply with laws and business ethics, guided by the values of responsibility, honesty, integrity, and respect in every action taken.

To support the sustainable implementation of GCG, PT Vale has developed comprehensive policies and supporting documents, such as the Sustainability Policy, Anti-Corruption Policy, Code of Ethics, as well as various charters for the Board of Directors, the Board of Commissioners, and related committees. These principles are not only documented but are also embedded into the work culture, systems, and decision-making processes throughout the organization.

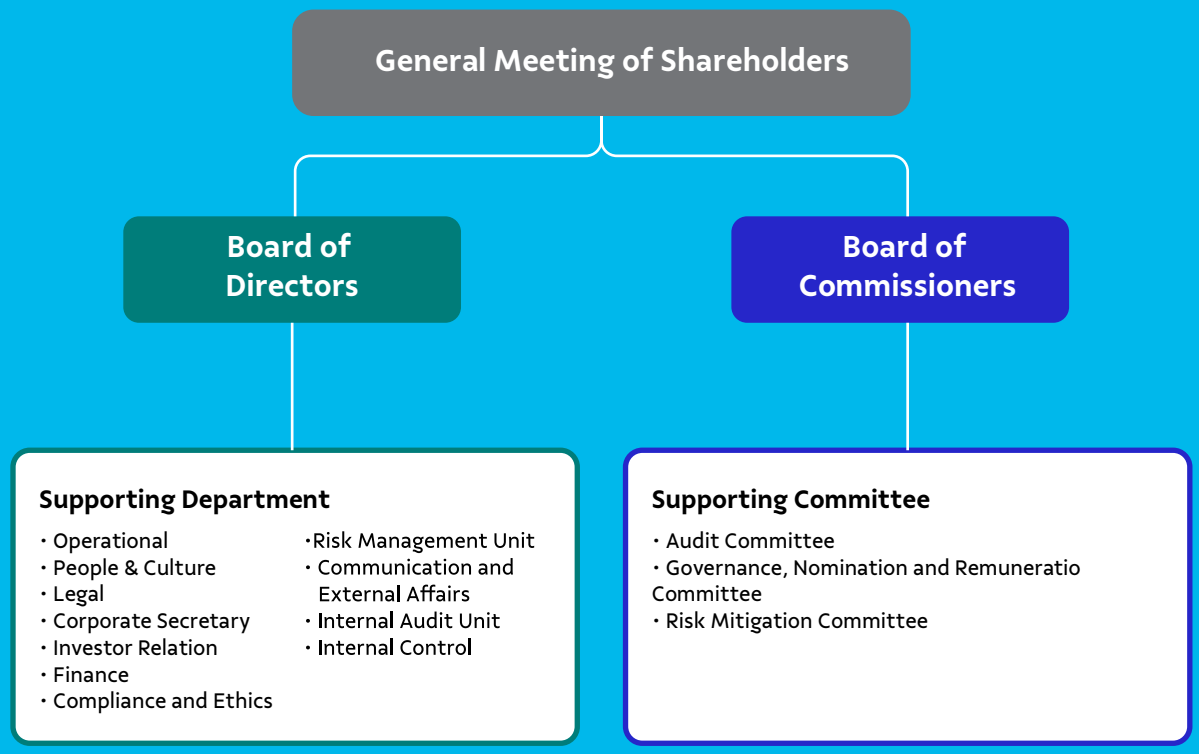
We understand that good governance is not just about regulatory compliance but also involves effective risk management, empowering all organizational functions, and achieving optimal performance. This approach aligns with our goal of increasing contributions to the national economy and fostering an investment climate that supports sustainable development.

Through this approach, PTVI not only ensures regulatory compliance but also strengthens governance risk management, optimizes performance improvement opportunities, and prevents the negative impacts of poor governance implementation.[GRI 2-27]

Material Topic	Related Sustainability Topic	Key Initiatives in 2024	Achievements
Good Corporate Governance (GCG)	Good Corporate Governance	Anti-Bribery & Corruption Training	247 employees received Anti-Bribery & Corruption Training
	Cybersecurity and Data Privacy	Strengthened cybersecurity awareness campaigns	Zero incidents of damage, modification, or leakage of digital data and information from customers, employees, or other stakeholders

Governance Structure

Company's GCG Structure



PT Vale's governance structure emphasizes a strong principle of checks and balances. Currently, the position of President Director is not held concurrently with the President Commissioner or any member of the Board of Commissioners, ensuring a clear separation between executive and oversight functions. This supports transparent and accountable governance.[GRI 2-9]

Further details on the selection process, structure, and composition of the Board of Directors and Board of Commissioners can be found in the 2024 Annual Report of PT Vale Indonesia Tbk.

Board Composition and Diversity

The composition of PT Vale's Board of Directors and Board of Commissioners reflects both competence and a diversity of experiences. This diversity spans areas such as expertise, education, work experience, age, gender, and nationality.

Board members come from varied professional backgrounds, including business management, law, commerce, mining, sustainability, and risk management. They also bring extensive experience from different sectors, such as business and mining, national and global institutions, consulting, academia, as well as government and bureaucracy.

In terms of gender diversity, PT Vale continues to promote female representation in leadership positions. In 2024, out of a total of 7 Board of Directors members, 1 is a woman. Meanwhile, among the 10 members of the Board of Commissioners, 3 are women. Overall, female representation in PT Vale's leadership stands at 23.5%, reflecting the company's commitment to gender equality in leadership.

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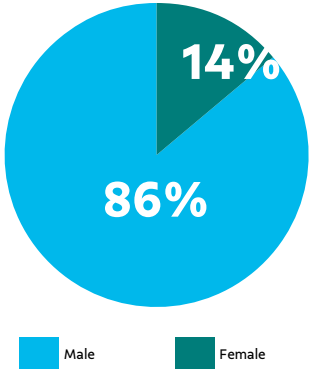
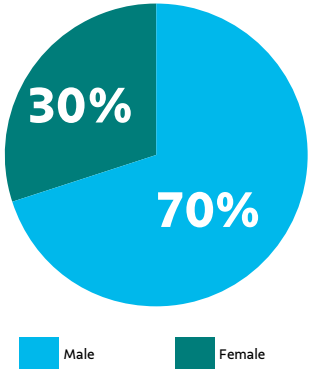
Board of Directions



Board of Commissioners



Risk Management and the Role of Governance

PT Vale Indonesia Tbk implements risk management based on international standards such as ISO 31000:2018, ISO 55001:2014, and COSO-ERM. This risk management system is designed to identify, assess, mitigate, and monitor risks that may impact the company's operations, achievement of strategic objectives, financial performance, and reputation. The process is overseen by the Board of Directors and carried out in coordination by the Risk Management Unit, Line Management, and Internal Audit. The Board of Commissioners and the Risk Mitigation Committee conduct regular oversight and evaluations to ensure the effectiveness of risk controls and governance[POJK51-E.3]

As previously explained on page 44, PT Vale also conducts ESG risk and opportunity assessments focusing on sustainability issues. This assessment is integrated into the company's overall risk management framework, with a deep focus on ESG-related topics.

Highest Role in Decision-Making[GRI 2-12]

The Board of Directors plays a central role in risk-related decision-making. It regularly reviews risk policies and monitors key operational, financial, legal, and compliance risks through structured reports from relevant units. To ensure accountability, the Board receives updates from units such as Internal Audit, Compliance & Ethics, Legal, Finance, Corporate Affairs, and other corporate functions. The Board of Commissioners and the Audit Committee provide independent oversight, particularly to ensure compliance with ethical policies such as the Code of Conduct and anti-corruption programs.

Delegation of Authority and Responsibility[GRI 2-13]

The Board of Directors delegates authority to company officers based on their respective areas of responsibility. The Risk Management Unit leads the identification and mitigation of corporate-level risks, while the Compliance & Ethics function ensures adherence to legal and ethical standards. Each department reports progress and challenges to the Board. Additional oversight is provided by the Risk Mitigation Committee under the supervision of the Board of Commissioners.

All of these processes are supported by adequate human resource training and capacity development to ensure effective execution of responsibilities.

Throughout 2024, the Risk Mitigation Committee carried out oversight and evaluation of risk management policies and their implementation. Its scope included reviewing policy updates, risk profiles, the 2025 risk strategy, and the 2025–2029 ERM Roadmap. The committee also provided recommendations on strategic risk assessments, budget updates, and the company's financial performance. More information on the role and outcomes of the committee's work can be found in PT Vale's 2024 Annual Report.

Strengthening Governance Capacity [POJK51-E.2] [GRI 2-17]

PT Vale Indonesia Tbk believes that the effectiveness of corporate governance largely depends on the capacity and competence of governance bodies. Therefore, the company consistently promotes the development of knowledge and capabilities of the Board of Directors and Board of Commissioners to address increasingly complex governance challenges, particularly in navigating regulatory changes, stakeholder expectations, and environmental and social issues.

As part of these efforts, PT Vale's Board members are equipped with knowledge of risk, governance, and sustainability through professional experience, regular training, and briefings from management and external experts. These efforts aim to enhance the governance bodies' capacity to perform their roles effectively, particularly in ensuring regulatory compliance and promoting community welfare and environmental protection. [GRI 2-12] [GRI 2-13] [GRI 2-17]

In 2024, the company focused its governance capacity-building efforts on active participation of the Board of Directors in various development initiatives. This is part of the company's commitment to implementing integrated governance principles that support the achievement of sustainability goals. By involving the Board directly, the company fosters alignment between strategic direction and responsible operational practices.

Throughout the year, the Board of Directors participated in various training programs covering key topics such as strengthening Governance, Risk, and Compliance (GRC) principles, understanding information security and cyber risk management, and developing an organizational culture that promotes integrity and collaboration. Training also focused on enhancing leadership capacity and synergy between the Board and executive management to support effective strategic decision-making.

Through these training programs, the Board is expected to become more adaptive in responding to business and regulatory dynamics and more proactive in guiding the company's sustainable strategy. This capacity-building also strengthens the Board's role in governance-based oversight and decision-making.

Additionally, PT Vale actively participates in strategic forums to demonstrate its commitment and share best practices, such as:

PT Vale participated in Indonesia Climate Change Expo & Forum (ICCEF) 2024 in Balikpapan, East Kalimantan. The company conveyed its focus on efforts towards Net Zero Emissions in 2050 which is ahead of the national target set by the government.

PT Vale participated in the Climate Actions event in the Conference of the Parties (COP) 29. In the event, PT Vale emphasized its commitment to support the acceleration of energy transition in a responsible and just manner, in line with Indonesia's green growth goals.

On several occasions, the Board of Directors appeared as speakers in events with sustainability themes, namely:

Febriany Eddy – President Director PT Vale

Febriany Eddy, President Director of PT Vale, Discussed the Important Role of Critical Minerals in the Global Energy Transition and ESG Practices for Sustainable Development that Support Indonesia Emas 2024 at the Bloomberg NEF Forum.

Febriany Eddy, President Director, PT Vale as speaker in the CNN Indonesia "The Big Idea" forum explained the Role of Nickel in Climate Change Solutions, Energy Transition and PT Vale ESG Compliance, to Support Carbon Emission Reduction in Indonesia.

At the CEO Dialogue Indonesia Pavilion COP 29 about Climate Action in Baku, Azerbaijan. President Director of PT Vale, Febriany Eddy, conveyed PT Vale's commitment to become a Global Leader in Responsible Mining. That is with an investment of $9 billion for responsible expansion of nickel products and development of Net-Zero carbon facilities.

President Director of PT Vale, Febriany Eddy at the ASEAN Mining Conference 2024: delivered a presentation about the importance of disciplined sustainability implementation, because without real action, sustainability will only become greenwashing.

Abu Ashar – Deputy President Director PT Vale

Deputy President Director of PT Vale shared experience on achieving Net Zero Emission at The 8th Expert Forum.

Bernardus Irmanto – Director of Sustainability and Corporate Affair of PT Vale

Director of Sustainability and Corporate Affair of PT Vale, Bernardus Irmanto became speaker at Katadata SAFE 2024 about the sustainable efforts carried out by PTVI in five decades.

Bernardus Irmanto – Director of Sustainability and Corporate Affair PT Vale

Bernardus Irmanto, Director of Sustainability and Corporate Affair of PT Vale, on Investor Daily TV Investor Daily Special conveyed PTVI's efforts to encourage sustainable and renewable mining practices.

In an interview with Detik.com, Director of Sustainability and Corporate Affair of PT Vale, Bernardus Irmanto conveyed that PTVI always prioritizes sustainable mining principles in its five decades of operation.

Bernardus Irmanto, Director of Sustainability and Corporate Affair of PT Vale, became Speaker at Indonesia International Sustainability Forum 2024 Panel 2: Sustainability in the Critical Minerals Sector, which Highlighted the Important Role of Certain Minerals in Driving the Energy Transition.

At the Special Session of Investor Daily Summit 2024, Director of Sustainability and Corporate Affair of PT Vale, Bernardus Irmanto, presented PTVI's efforts to achieve net zero emission goals in 2050.

Director of Sustainability and Corporate Affair of PT Vale, Bernardus Irmanto at the Conference of the Parties (COP) A8 – Bappenas became speaker with the theme Shaping Indonesia Forward as the Global Green Battery Hub.

Director of Sustainability and Corporate Affair of PT Vale, Bernardus Irmanto, attended the Djakarta Mining Club event: A discussion about climate change, sustainability practices, and the green premium potential for nickel.

Andriansyah Chaniago –

Director of Human Capital PT Vale

Adriansyah Chaniago, Chief of Human Capital PT Vale, Discussed Opportunities with Investor Daily TV (IDTV): PTVI's Operations in the Preservation of Human Resources, Environment, and the Role of Mining in the Energy Transition.

Performance Assessment and Remuneration

Governance performance assessment at PT Vale is carried out by evaluating the company's performance throughout the current period, including the achievement of predetermined KPI targets. This evaluation process is conducted through meetings of the Board of Commissioners and Directors to assess the company's performance in achieving the formulated strategic objectives, as well as to identify areas for improvement, especially in sustainability aspects. This assessment involves measuring social, economic, and environmental impacts, which reflects our commitment to sustainable mining practices. The evaluation results, which include achievements in sustainability and governance fields, are then presented to the Shareholders at the General Meeting of Shareholders, which is an important forum for transparent communication and accountability to key stakeholders.

In addition, to maintain the integrity and objectivity of the assessment, PT Vale also conducts independent evaluations related to sustainability performed by third parties. This evaluation covers various dimensions, such as environmental impact management, social diversity, and ethics in corporate governance. [GRI 2-18]

The determination of compensation for the Board of Commissioners and Directors is carried out through the GMS, taking into account the results of a comprehensive performance evaluation, including achievements in sustainability management which is an important part of the company's strategy. This process is supported by the Nomination and Remuneration Committee (KTNR) which plays a role in preparing recommendations and ensuring that compensation policies align with the principles of fairness, transparency, and contribution to the company's long-term goals. [GRI 2-19] [GRI 2-20] [GRI 2-21]

Throughout 2024, the Nomination and Remuneration Committee (KTNR) carried out a strategic role in strengthening corporate governance, including oversight of the implementation of GCG improvement initiatives and governance work plans. The Committee also provided recommendations on the compensation policies for the Board of Directors and senior officials, and ensured alignment between performance and the incentives provided. In addition, the company continues to build leadership sustainability through the Career & Succession Planning (CSP) system, which includes performance evaluations, talent development, and succession planning to support management continuity. More information regarding remuneration policies and performance evaluation results is available in PT Vale Indonesia Tbk's 2024 Annual Report.

Governance Policy

Transparent and accountable governance is the main foundation in every operational line of PT Vale. We are committed not only to implementing strong sustainability principles but also ensuring that the entire value chain, including employees, partners, and external parties, operates according to high standards in ethics, integrity, and transparency.

We apply the Code of Conduct (CoC) as the main guideline in realizing sustainable governance. This Code of Ethics includes the following principles:

Transparency

Maintaining openness in company operations and accurate information disclo-sure.

Anti-Corruption and Anti-Bribery

Implementing strict policies against corruption and bribery, providing reporting channels for violations

Avoidance of Conflict of Interest

Avoiding actions or decisions that could cause conflicts of interest, either personally or in business relationships.

Occupational Safety and Health

Prioritizing the safety and well-being of employees and workers, as well as creating a safe working environment.

Social and Environmental Responsibility

Operating in ways that support sustainable development and respect human rights.

Compliance with Laws and Regulations

Complying with all applicable laws and regulations in the countries of operation and relevant international

Risk Management and Internal Control

Maintaining strict risk manage-ment and internal control systems to minimize losses.

Respect for Diversity and Inclusion

Creating an inclusive, fair work environment that respects cultural, gender, and background differences.

Responsibility in Relationships with Suppliers and Partners

Avoiding actions or decisions that could cause conflicts of interest, either personally or in business relationships.

Regular socialization is conducted every year to ensure that all parties understand and implement the principles of the Code of Conduct as part of our commitment to Environmental, Social, and Governance (ESG) aspects. In 2024, we conducted Code of Conduct training for employees through the Vale Education System (VES) platform. Training materials are also available on the company internet so they can be accessed anytime as a convenient reference for all employees. A total of 557 employees have participated in this training, reflecting the company's strong commitment to building an ethical and integrity-based work culture throughout the organizationi.[GRI 2-24]

As an effort to expand the application of ethical and compliance principles, including corruption prevention, across the company's supply chain, we also conducted training on the Supplier Code of Conduct for our suppliers. [GRI 205-2]

Anti-Corruption and Anti-Fraud

[SASB EM-MM-510a.1] [SASB EM-MM-510a.2]

PT Vale implements a zero-tolerance policy against corruption, bribery, and abuse of power. This policy not only supports legal compliance but also strengthens the company's governance, integrity, and sustainability.

Throughout 2024, we also carried out anti-corruption policy awareness through internal media such as email blasts and banners, and organized various anti-corruption outreach and training activities. A total of 247 employees participated in Anti-Bribery and Anti-Corruption Training, with priority given to units that interact directly with external parties such as the government, partners, and others. The training materials included anti-corruption policies, case studies, reporting mechanisms, and awareness building on corruption risks in business processes.[GRI 205-2]

We regularly conduct risk assessments to identify potential corruption, by referring to the Corruption Perceptions Index (CPI) as part of Vale's Global Anti-Corruption Program. This commitment also applies to our business partners and suppliers.

As a preventive measure, PT Vale collaborates with the law firm Hadiputranto, Hadinoto & Partners to assess corruption risks, particularly in the procurement of goods and services. We implement an e-procurement system and include anti-bribery and anti-corruption clauses in contracts with third parties. Vale's Global Anti-Corruption Guidelines are accessible to all employees, and we provide secure and confidential reporting channels.[GRI 205-1]

During the reporting period, there were no complaints or legal cases related to violations of anti-corruption policies, either by employees or business partners. This demonstrates the effectiveness of policy implementation in maintaining integrity and building public trust. We remain committed to creating a corruption-free work environment, supporting transparency, and strengthening accountability. During the reporting period, there were no complaints regarding violations of anti-corruption policies, and no public legal cases related to allegations of corruption.[GRI 205-3]

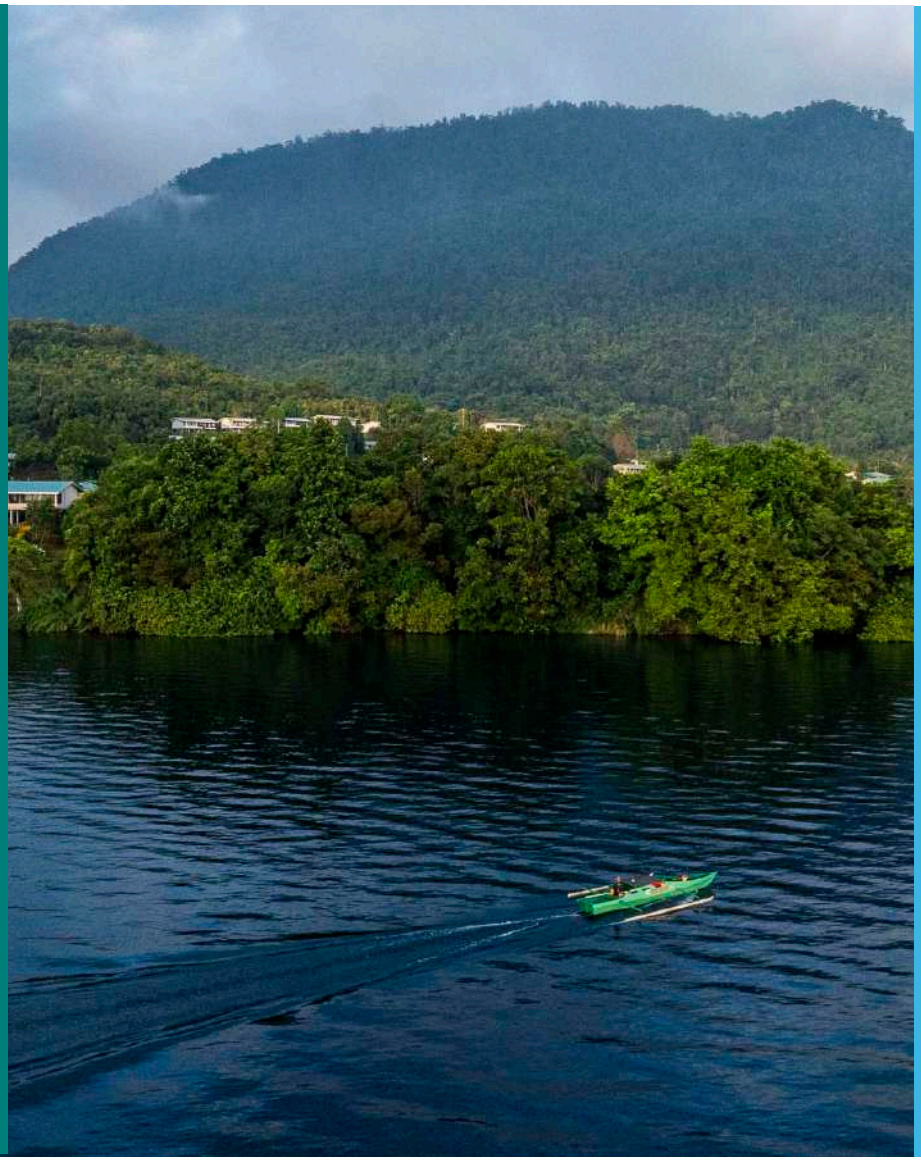
Managing Conflict of Interest[GRI 2-15]

We are committed to ensuring that there are no conflicts of interest that could affect the objectivity and integrity of decision-making, whether at the level of the Board of Directors, Board of Commissioners, or Shareholders. During the reporting year, there were reports submitted through the Vale Whistleblower Channel (VWC) regarding alleged conflicts of interest. All reports have been followed up according to the applicable procedures, and if found to be valid claims, corrective actions were taken immediately in accordance with company policies.

Disclosure of information regarding conflicts of interest and their follow-ups is presented in PT Vale Indonesia Tbk's 2024 Annual Report. This effort reflects the company's commitment to maintaining transparent, accountable governance that is free from improper influence.

Respect for Property Rights

We are committed to respecting property rights in every aspect of our nickel mining operations. We comply with the applicable legal framework and respect land ownership rights, ensuring that all operational activities do not violate the rights of individuals or groups. This commitment reflects our dedication to upholding high ethical standards and compliance with applicable regulations, as well as ensuring the protection of property rights as part of our efforts to support social and environmental sustainability in every step of the company's operations.



In line with our commitment to the implementation of sustainable governance, the Company has a policy to prohibit any form of contribution to political activities, either directly or indirectly. We also do not allow the use of PT Vale's facilities or assets for political activities.[GRI 415-1]

Whistleblowing Channels [GRI 2-16][GRI 2-26]

Our commitment to transparency and accountability is realized through the Vale Whistleblower Channel (VWC), an independent reporting channel that allows suppliers, customers, and third parties to report suspected violations anonymously, safely, and without fear of retaliation. Managed by a professional service provider in Indonesia, the VWC is directly connected to PT Vale's Whistleblower Team, which ensures that every report is followed up according to applicable procedures. This channel is available 24 hours a day, 7 days a week, and is ready to receive reports on issues such as corruption, conflicts of interest, discrimination, and violations of company regulations or codes of conduct.

As part of our commitment to good governance principles, the protection of whistleblowers is a top priority. The company guarantees the confidentiality of reports and handles each case with neutrality, objectivity, and without intimidation. PT Vale strongly opposes any form of retaliation against whistleblowers, which is considered a serious violation and subject to strict sanctions. We also encourage all employees to report any acts of retaliation to maintain integrity and create a safe, inclusive, and fair work environment. Report evaluations are conducted every three months and are reported directly to the CEO of PT Vale Indonesia.

Reporting Channels through VWC

Phone
0 800 100 2233

Email
vwc@tipoffs.info

Website
https://idn.deloitte-halo.com/valewhistleblowerchannel/?Pg=4

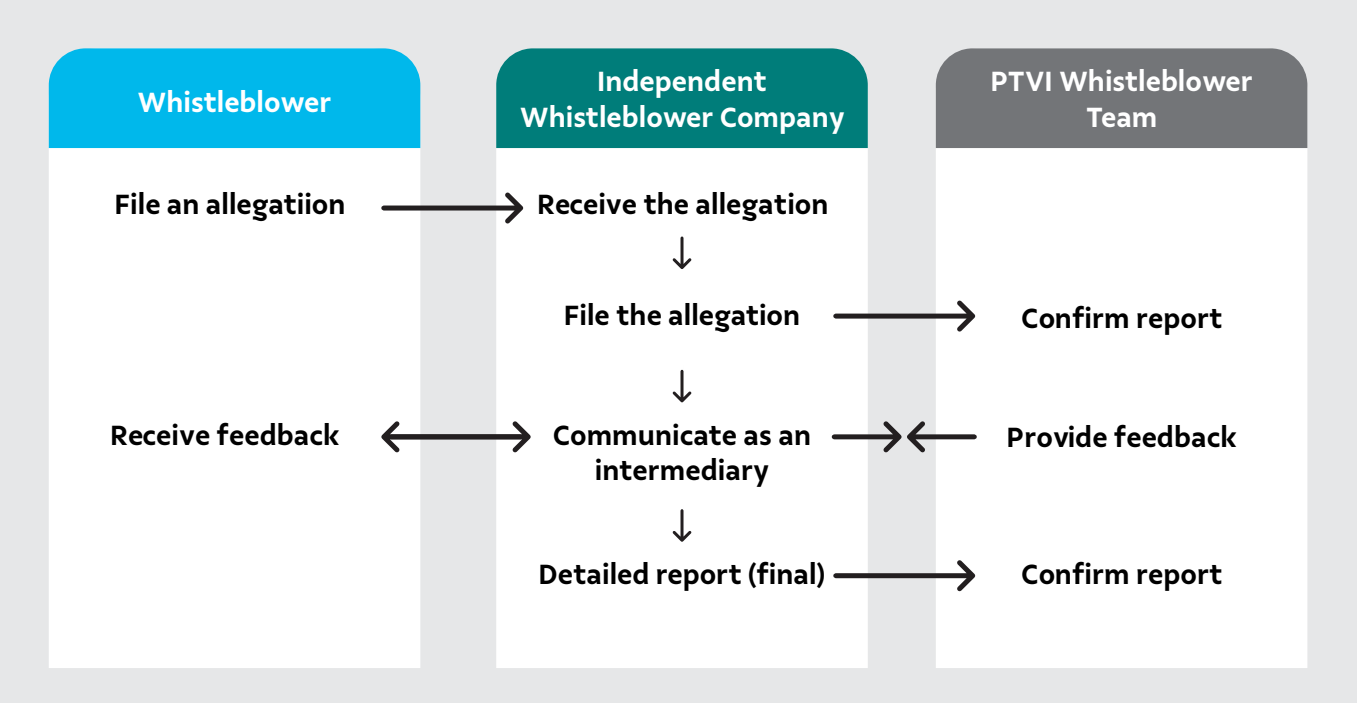
Fax
+62 21 2993 8456

SMS/WhatsApp
+62 812 80400622

Mail
Vale Whistleblower Channel
PO Box 3035 JKP 10030

Scan this QR code to access the VWC Website

VWC Reporting Handling Process



In 2024, VWC received 23 reports of alleged violations, with 17 reports (74%) found to be valid and investigated while maintaining confidentiality and objectivity. The types of violations reported include fraud, conflicts of interest, interpersonal relations, relationships with third parties, health and safety at work, and environmental issues.

Each proven case is handled in accordance with the collective labor agreement agreed upon by both parties, the employee and employer, considering the level of violation and its impact on the work environment.

Data on the handling of violations reported through the Vale Whistleblower Channel (VWC) over the past three years can be found in the Data Table section under Violation Reporting Handling Through Vale Whistleblower Channel (VWC).

23 Incoming Reports

Violation Types
Fraud, conflicts of interest, interpersonal relationships, relationships with third parties, health and safety at work, and environmental issues

17 Valid Reports

11 Not Proven

5 Cannot Be Verified

1 Proven

Violation Type
Harassment and Discrimination

Disciplinary Actions for Violations

Any violation of the provisions in the Code of Ethics and Conduct is subject to disciplinary sanctions applied progressively, starting from a warning (verbal or written), suspension, up to termination of employment. PT Vale uses reports received through various channels, including the Vale Whistleblower Channel (VWC), as well as the results of internal investigations, as a basis for evaluation and improvement of internal controls to prevent future violations.

For proven violations, the company imposes various forms of disciplinary actions and sanctions, including formal feedback, warnings, retraining, suspension, termination of employment, and/or other legal actions based on the level of the violation.

Below are the forms of disciplinary actions imposed during the reporting year, whether based on reports received through the Vale Whistleblower Channel (VWC) or findings from other internal monitoring mechanisms:

Disciplinary Action and Violation						
Action Stages	2024		2023		2022	
	Safety	*Non Safety*	*Safety*	*Non Safety*	*Safety*	*Non Safety*
Step I: Written Direction	23	22	19	15	9	7
Step II: Written Warning I	46	17	15	28	29	5
Step III: Written Warning II	12	4	5	1	4	3
Step IV: Final Warning	5	3	8		1	7
Step V: Termination of Employment	1	1	1	1	1	
Total	87	47	48	45	44	22

This approach reflects PT Vale's commitment to creating a work environment that is ethical, transparent, and free from violations. With an effective reporting system and professional investigations, the company continues to strengthen its culture of compliance and prevent future violations.

Data Security and Digital Information[GRI 3-3][GRI 418-1]

In the digital era, data and information security has become an increasingly crucial aspect for business sustainability. PT Vale recognizes that secure and transparent data management is not only a compliance obligation with regulations but also part of maintaining stakeholder trust. The evolving cyber threats can impact company operations, the protection of individual rights, and the company's reputation. Therefore, cybersecurity and personal data protection are material topics in Vale's sustainability strategy.

PT Vale is fully committed to protecting the privacy and personal data of all individuals processed by the company, including employees, customers, service providers, and other stakeholders. To this end, we implement the Personal Data and Privacy Protection Policy, ensuring that the collection, processing, storage, and deletion of data are carried out in accordance with applicable laws.

Personal data is collected only for legitimate, clear, and specific purposes, such as managing employment relationships, contract management, and compliance with regulations, including the protection of employee health and safety. Additionally, personal data is processed in managing relationships with customers, suppliers, and business partners to ensure compliance with contractual and regulatory obligations.

Personal data processing is done based on the consent of the data owner, the execution of contracts, legal obligations, or legitimate interests of the company. For sensitive data, such as health information, religion, and biometric data, Vale only processes it with explicit consent from the data owner and for very specific purposes.

Cybersecurity Measures and Risk Management

In addressing potential cyber threats, PT Vale applies various technical and organizational measures to ensure optimal data protection. We ensure that personal data is only shared with third parties who have been approved and are obligated to process data securely and in accordance with the stated purposes. For international data transfers, Vale uses protection mechanisms such as standard contractual clauses or binding corporate rules to ensure compliance with global legal requirements.

As part of our compliance efforts, PT Vale documents all procedures related to data processing in the Record of Processing Activities (ROPA) and conducts a Data Protection Impact Assessment for any processes that present high risks to the rights and freedoms of data owners.

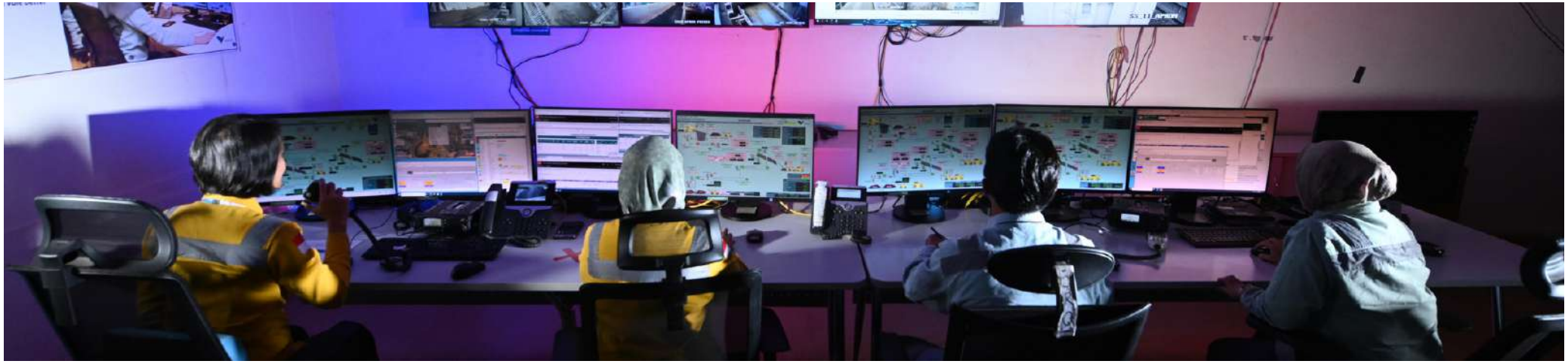
To protect data from unauthorized access, loss, or damage, Vale implements technical measures such as encryption systems, multi-factor authentication, firewalls, and regular security monitoring. Data can only be accessed by authorized parties, and backup and data recovery systems have also been implemented. In the event of a data breach, the company has an incident response procedure that includes reporting to the Data Protection Officer (DPO) and mitigation steps to minimize the impact.

Throughout 2024, Vale did not receive any reports related to the damage, modification, or leakage of digital data and information from customers, employees, or other stakeholders.

Employee Education and Awareness

Realizing that cybersecurity also depends on individual awareness, Vale actively enhances employee understanding of the importance of data protection and privacy. Education is conducted through various internal campaigns, such as the installation of banners, the dissemination of messages via WhatsApp broadcast, and the display of information through videotrons. Additionally, cybersecurity-related material is integrated into the onboarding program for new employees and contractors.

Through this approach, Vale ensures that all layers of the organization understand their role in safeguarding data and privacy. With an effective reporting system, stringent protection mechanisms, and enhanced employee capacity, the company continues to strengthen its cybersecurity culture to prevent future violations



Elevating Our Commitment to the Environment

VALE

PT Vale's Approach to Managing Environmental Material Issues[SASB EM-MM-160a.1][GRI 3-3]

In facing global challenges related to climate change and environmental degradation, PT Vale is committed to managing operational impacts responsibly and sustainably through an integrated Environmental Management System (EMS). This system ensures that every stage of operations, from exploration activities to mining land rehabilitation, is carried out in accordance with established sustainability principles.

This commitment is stated in our Sustainability Policy and is applied throughout our operations and supply chain, with reference to international principles, such as the ICMM Sustainable Mine Management Principles, the International Finance Corporation (IFC) Environmental Performance Standards, and the ISO 14001:2015 Environmental Management System.

In 2024, our site in Sorowako successfully extended the ISO 14001:2015 Environmental Management System certification which covers the scope of mining, nickel processing plants, and their support and services.

As part of its environmental impact management, PT Vale implements Life Cycle Assessment (LCA) to measure environmental impacts at every stage of the mining cycle. This approach allows the company to assess and mitigate negative impacts more comprehensively, and ensure operations are in accordance with standards set by IFC and ISO. In addition, PT Vale also adopts the Preliminary Risk Analysis and Aspects Assessment and the Change Management approach to identify and mitigate environmental impacts from the planning stage. This program has been implemented in the operational areas of the Sorowako, Pomalaa, and Bahodopi Blocks.[GRI 101-4]

As part of a comprehensive approach, PT Vale also emphasizes the importance of collaboration with various stakeholders in environmental management. The company actively involves the community, government, and business partners in the preparation of the Environmental Impact Analysis (AMDAL), Environmental Management Plan (RKL), and Environmental Monitoring Plan (RPL) through public consultation activities. However, because the AMDAL focuses more on environmental aspects, this year PT Vale also conducted an Environmental and Social Impact Assessment (ESIA) to ensure a broader approach, covering both environmental and social impacts as a whole. This ESIA approach is one of the more comprehensive impact management efforts that is in line with international standards and aims to ensure that mining projects not only mitigate environmental impacts, but also consider the social welfare of surrounding communities.[GRI 101-4]

PT Vale establishes a target-based program to ensure the effectiveness of environmental policies, with periodic evaluations to improve resource efficiency and minimize operational impacts. Policies related to conservation, emissions, energy efficiency, and other targets have been integrated into the RKL and RPL, with regular reporting to relevant authorities. In line with the divestment process, the company updated its sustainability policy which provides an opportunity to adjust strategies more independently to create a greater positive impact.

In its implementation, PT Vale's environmental management system is directly supervised by the Head of Mining Engineering together with the Environmental Manager, to ensure alignment with industry best practices and sustainability goals. To ensure compliance with regulations, the company uses a special application, namely the Regulation Compliance System (RCS). Through this application, compliance is monitored periodically, to ensure its compliance with applicable government regulations. Through the environmental management system, PT Vale also monitors GHG emissions, waste management, water and energy efficiency audits, and internal and external audits. Environmental management performance is reported regularly through the company's website and to relevant authorities, such as the Ministry of Environment and Forestry (KLHK), the South Sulawesi Environmental Management Service, and the East Luwu Regency Environmental Service.

As part of the implementation of the environmental management system, PT Vale consistently allocates a special budget to support various related programs and activities. In 2024, PT Vale allocated funds of US$28.4 million to support comprehensive environmental management efforts.

Environmental Management Costs (US$)

2024	28,373,231
2023	67,340,642
2022	20,142,498

The infographic below summarizes PT Vale's flagship programs, including material topics, initiatives, and achievements until 2024:

Material Topic

Emissions and Energy Management

ESG Material Topics

- Emissions and Energy Management
- Climate Adaptation and Resilience
- Environmental Management Systems

Initiatives in 2024

Greenhouse Gas and Energy Initiative

1. **Smarter Slag Control in Nickel Smelting (REALITAS)**
   An innovation in Nickel Slag Level Engineering in the Electric Furnace implemented by PT Vale Indonesia to improve energy efficiency in the nickel smelting process through a mechanized slag measurement system (Mechanized Rod Measurement/MRM).
2. **Logic Cascade**
   A smart control system that automatically adjusts coal input in the Reduction Kiln to keep carbon levels stable in the product, lower energy use, and reduce emissions and environmental footprint.

Non-GHG Emissions Reduction Initiative

1. **Baghouse in Electric Furnace No. 1 and 2**
   This program improves the filtration system to optimize particulate emission control and enhance operational efficiency.

Achievement

GHG Emissions Initiative

1. Through the implementation of the REALITAS program in 2024, PT Vale Indonesia achieved energy savings of 142,529 GJ and increased the use of renewable energy by 2%, contributing to a reduction in carbon emissions.
2. The Logic Cascade program, also implemented in 2024, resulted in 346,413 GJ of energy savings and a 33,285-ton CO_2eq reduction in GHG emissions.

Non-GHG Emissions Initiative

1. Improvements to the system in Electric Furnace 2 reduced particulate (non-GHG) emissions by 42 tons, while Electric Furnace 1 saw a reduction of 22 tons.

Material Topic	Water and Effluent Management
ESG Material Topics	Water and Effluent Management

Initiatives in 2024

1. **Cooling System Upgrade in Furnace 4 (SUPER FURNACE 4)**
   Water replacement with air as the cooling method in Furnace 4. This change helps reduce water usage while keeping production running efficiently.

2. **Water Level Sensor in the Matte Pond (SEL POLISI in MP)**
   Installation of water level sensor to control water addition and prevent wastage.

3. **Intelligent Coagulant for Mine Water Treatment (INCO MATTE)**
   This program uses an automated system to adjust the amount of coagulant used in treating mine runoff water. It helps improve the efficiency of the water treatment process.

Achievements

1. Through the SUPER FURNACE 4 innovation, water consumption was successfully reduced by 22,536 m^3 in 2024.

2. Through the SEL POLISI in Matte Pond innovation, water consumption was successfully reduced by 133,540 m^3 in 2024.

3. The implementation of INCO MATTE system contributed to the reduction of pollutants by 87 tons of TSS (Total Suspended Solids) and 0.11 tons of Cr6+ (Hexavalent Chromium) in 2024.

Material Topic	Waste Management (hazardous and non-hazardous)	
ESG Material Topics	Management of Hazardous and Non-Hazardous Waste	Mining Waste

Initiatives in 2024

Hazardous Waste

1. **Using Used Oil as Fuel for the Dryer and Reduction Kiln**
   This program re-uses oil from workshops and maintenance of heavy and light vehicles as an alternative fuel for the Dryer and Reduction Kiln. This helps save energy and reduces hazardous waste.

2. **Optimization of Engine Oil Replacement**
   An innovation to optimize engine oil replacement using centrifugal filter technology, thereby extending the oil's lifespan and reducing hazardous waste.

Non-hazardous waste

1. **Transformation of Organic Waste into Woliko Livestock Feed through the Tiered Biopond Method Innovation (TRAMPIL WOLIKO)**
   Innovation that transforms organic waste into maggot-based livestock feed using the tiered biopond method, enhancing efficiency.
2. **Track Shoe Regrouser**
   An innovation that reuses worn-out track shoe scrap metal by repairing the damaged parts. This helps reduce non-hazardous waste and makes the track shoes last longer.

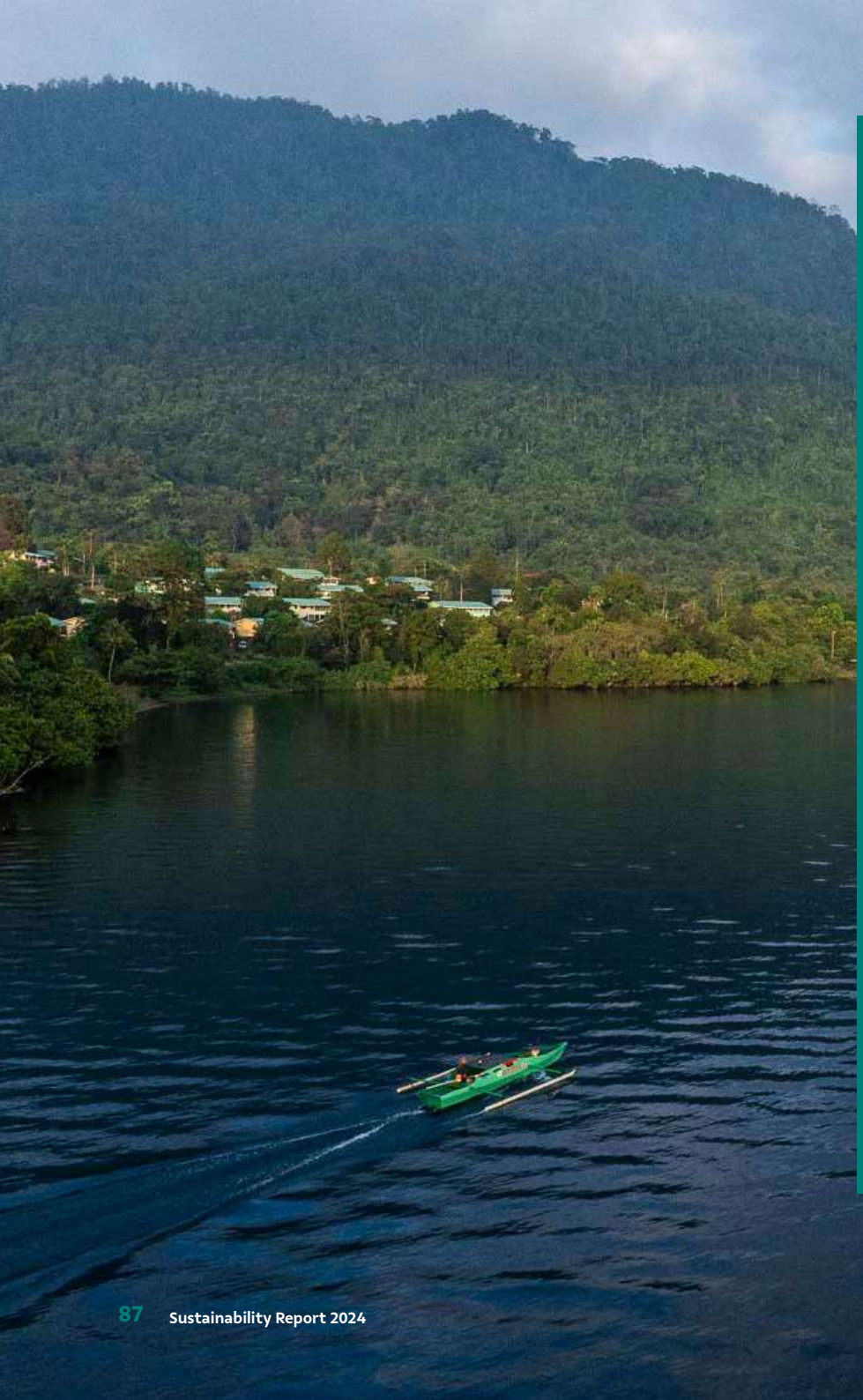
Achievements

Hazardous Waste

1. In 2024, the program to use used oil as fuel for the Dryer and Reduction Kiln reduced hazardous waste by 1,107 tons.
2. Initiative of the use of centrifugal filters helped reduce hazardous waste by 4 tons in 2024.

Non-Hazardous Waste

1. TRAMPIL WOLIKO processed 5.6 tons of organic waste into animal feed through the tiered biopond innovation.
2. The Track Shoe Regrouser program successfully reused 60 tons of scrap metal by extending the lifespan of bulldozer track shoes.



Material Topic	**Waste Management (hazardous and non-hazardous)**	
ESG Material Topics	**Land Closure and Rehabilitation**	**Biodiversity**

Initiatives in 2024

1. Reclamation using land use planning and revegetation methods on former mining areas.
2. Conservation of endemic flora and fauna by planting host plants and setting up a butterfly breeding area in the Biodiversity Park (Taman Kehati).
3. Conserving Timor Deer (Rusa timorensis) in the nursery area of PT Vale Indonesia Tbk.
4. Restoring coastal ecosystems by planting freshwater mangroves in Lake Matano and rehabilitating the coastal area in Malili.
5. Planted trees on 6,615 hectares of land as part of watershed rehabilitation in 2024.

Achievements

1. Reclamation of 178.98 hectares of former mining land.
2. Conservation of 67,903 trees.
3. Conservation of 22 Timor deer (Cervus Timorensis).
4. Restoration of 1 hectare of mangroves along the Malili coast.
5. Rehabilitation of 203 hectares of mangroves in watershed rehabilitation areas.

Feature Story

PT Vale Indonesia Tbk and GEM Sign Strategic Collaboration for Nickel Production Investment

In November 2024, PT Vale partnered with GEM Co., Ltd. to develop a US$1.4 billion High-Pressure Acid Leach (HPAL) project in Central Sulawesi. The project includes a net-zero nickel processing plant with a capacity of 60,000 tons of Mixed Hydroxide Precipitate (MHP) per year, a key ingredient in electric vehicle batteries.

Of the total project budget, US$40 million is allocated for an environmentally friendly technology research center, US$30 million for an ESG Compound to ensure sustainability compliance, and US$10 million for community development. The project drives the decarbonization of the nickel industry through low-emission technologies and green energy, strengthening Indonesia's competitiveness in the global market, while supporting the clean energy transition.

PT Vale Wins First Gold PROPER Award in Nickel Mining and Industry

PT Vale Indonesia received the 2024 Gold PROPER award, making it the first company in the nickel mining and industry to receive the highest recognition from the Ministry of Environment and Forestry (KLHK).

After three consecutive years of maintaining the Green PROPER, this achievement confirms PT Vale's ongoing commitment and efforts in innovation and sustainability. This award reflects compliance with regulations as well as the success of initiatives beyond compliance such as emission reduction, energy efficiency, water and waste management, post-mining land rehabilitation, and social programs.

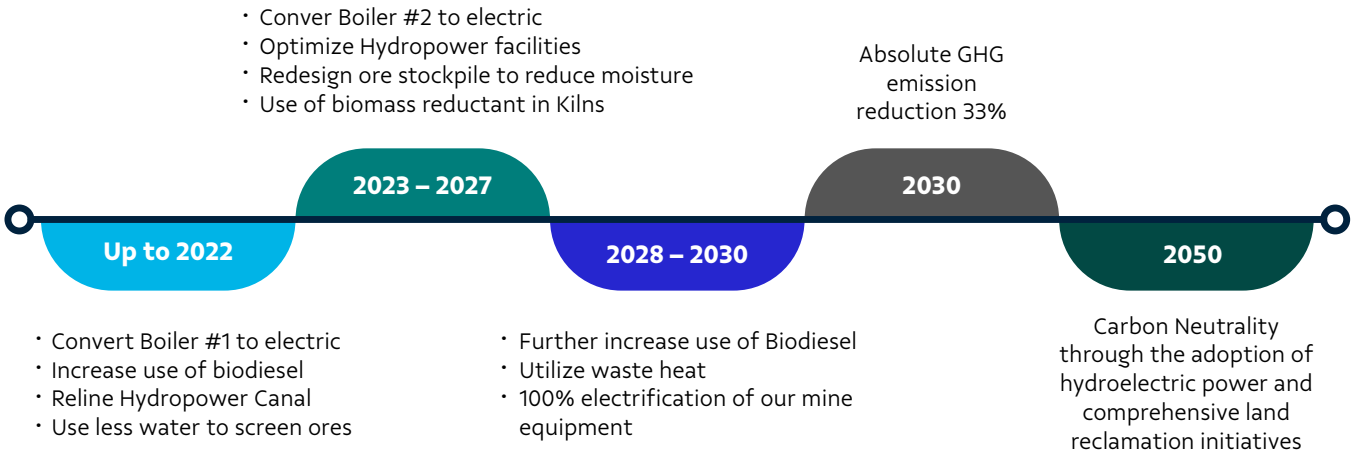
At PT Vale, we believe that sustainability is more than just responsible mining operations; it is about how we can contribute to the global solution.

-
Abu Ashar
Vice President Director & Chief Operations & Infrastructure Officer of PT Vale

Climate Adaptation and Resilience [SASB EM-MM-110a.2]

Energy transition is key to addressing climate change and limiting global temperature rise in accordance with the Paris Agreement. As a nickel producer, PT Vale plays an important role in supporting the development of renewable energy and electric vehicles, as demand for nickel increases as one of the main raw materials for electric vehicle batteries. This ultimately provides a positive opportunity for the company's performance.

The challenges of climate change drive demand for critical minerals such as nickel and open up opportunities for PT Vale to continue to innovate in supporting the green energy transition. To manage the risks of climate change, PT Vale has prepared a Roadmap to Carbon Neutrality by 2050 which is in line with the Paris Agreement and Presidential Regulation No. 98 of 2021. In addition, we are committed to reducing carbon emissions by 33% by 2030 and achieving net-zero by 2050 for our mining and processing operations in Sorowako. In addition, we are committed to reducing carbon emissions by 33% by 2030 for our mining and processing operations in Sorowako. This target is faster than Indonesia's NDC target to achieve carbon neutrality by 2060. The following roadmap details concrete strategies and steps to reduce emissions, increase energy efficiency, and switch to renewable energy.



PT Vale's goal is to achieve carbon neutrality by 2050 through the adoption of hydroelectric power and comprehensive land reclamation initiatives. PT Vale fully aligned with Indonesia's ambitious Net Zero Emission target by 2060, contributing significantly to national sustainability efforts.

The carbon neutral roadmap focuses on studies of several alternative emission reduction programs targeted for completion in 2025. Implementation of the study results is planned to begin in 2026 and will have an impact on reducing emissions by 33% by the end of 2030.

Through this roadmap approach, we are targeting a 29% emission reduction in the drying kiln and 58% in the reduction kiln. For the smelting process, PT Vale is conducting a feasibility study related to the utilization of waste heat from exhaust gas and slag in an electric furnace, which is expected to increase energy efficiency. The use of this electric furnace is also designed to be in line with the utilization of low-carbon energy sources, with the majority of electricity supply coming from the Hydroelectric Power Plant (PLTA).

By the end of 2024, we can provide a summary of the progress of these studies as follows:

Program	Project	Progress/Results	Challenges
Fuel substitution	The use of bio-carbon in the reduction process replaces coal	Test results from the reduction furnace show that using up to 30% bio-carbon does not cause any technical or operational issues.	• Availability and continuity of supply • Commodity prices
	The use of bio-carbon for the combustion process replaces coal	Tests on the drying and reduction furnaces showed positive results.	• Impurities and water content • Availability and continuity of supply • Commodity prices
	Use of hydrotreated vegetable oil (HVO) as a substitute for diesel fuel	Test results on mining equipment show that the use of HVO can replace B35 as fuel alternative	• Availability and continuity of supply • Commodity prices
Equipment Electrification	Use of 70-ton electric mining trucks.	Field operational testing revealed several technical challenges.	• Trucks are limited to operating in relatively flat terrain. Making them unsuitable for challenging topography in mining areas. • Battery charging time are relatively long.
	Use of electric cars and buses	Field tests show they perform well, both technically and in terms of safety.	Routes are being planned, along with the placement of battery charging stations.
	Electric boilers to replace fossil fuel boilers (Phase 2)	Detailed engineering design has been completed and the manufacturing process is in progress.	Water treatment is needed to ensure its quality meets the required specifications.
Energy Efficiency	Waste heat recovery system is being implemented for the drying furnace	Initial technical evaluation stage completed.	The layout of the existing processing plant/smelter needs to be reconfigured.
	Penstock reinforcement at Larona hydropower plant to boost energy generation.	Construction in progress.	-
	Reduction of water content of nickel ore feed to lower the energy needed for ore dewatering.	A field study is ongoing to determine the best roofing design and method to prevent rainwater from entering the Wet Ore Stockpile (WOS).	Proper water content control is essential to prevent blockage when feeding wet ore into the system.
Use of renewable energy	Solar energy is being utilized through solar PV to replace electric grid from PLN in the port area.	Detailed engineering design study and small-scale trials are in progress.	-

Based on the results of the study and the ongoing process, the results are encouraging, despite the technical and economic challenges that are still being faced. In connnection with the results of the study and the development of new mining projects in Bahodopi and Pomalaa, we will review the roadmap to carbon neutrality next year to ensure that the target can still be achieved optimally, in line with the evolving operational dynamics. Adjustments to various initiatives will also be made to improve the efficiency, effectiveness and sustainability of the decarbonization strategy.

Matano Iniaku Program: Sustainability and Community Empowerment

Lake Matano is a source of life for the surrounding community, but is threatened by changes in land use and low environmental awareness. To address this, PT Vale carries out the Matano Iniaku Program in Matano Village, Nuha District, East Luwu Regency.

This program encourages a shift from monoculture to polyculture (agroforestry) and improves tourism management through local institutions. In addition to preserving the environment, this program also opens up new economic opportunities for the community.

Through watershed rehabilitation and training, the community now implements sustainable agricultural practices and manages ecotourism professionally. This program not only reduces environmental impacts but also improves the welfare of the community around Lake Matano.

"In the past, the livelihood of the people of Matano Village was only farming. Many cut down trees and burned the land. We began to question whether pepper plants could withstand erosion during heavy rains. We did not want our village to be polluted or the Lawaa River to become shallow due to a poor agricultural system.

PT Vale is present through the Watershed Rehabilitation program, with more than 200 ha of land that has been rehabilitated. Previously, we thought that clearing land by cutting down trees was a fast and successful way to farm. However, after taking training from PT Vale, we understand that good agriculture must still protect nature. Now, the Lawaa River remains clear and Lake Matano remains sustainable.

PT Vale also provides training for ecotourism managers. Now, the community is more professional in managing tourism in Matano Village. The presence of PT Vale not only improves the economy with more diverse sources of income, but also preserves the environment."

–
Amsal
Environmental Observer & Eco-Creative Manager

Emissions and Energy Management

PT Vale implements a comprehensive greenhouse gas (GHG) emission reduction strategy across the entire nickel matte production chain. This strategy focuses on three main aspects: energy efficiency, a transition to cleaner fuels, and the integration of low-carbon technologies.

PT Vale is currently planning to optimize raw material management at the wet ore stockpile through a stockpile redesign, aimed at reducing the moisture content of the ore before it enters the drying process in the dryer kiln. This step is expected to reduce energy consumption during the drying stage. In addition, PT Vale is transitioning from coal to biocarbon and biofuel in the drying and reduction stages. This initiative is further elaborated in PT Vale Indonesia's emission reduction roadmap presented in the previous sub-chapter.

During the smelting process, PT Vale utilizes waste heat from exhaust gas and slag in the electric furnace, contributing to overall energy efficiency. Moreover, the use of electric furnaces supports the reduction of the carbon footprint in nickel matte processing.

PT Vale, together with its partners, is also focusing on the development of low-carbon nickel ore processing facilities using high pressure acid leach (HPAL) technology in the Bahodopi, Pomalaa, and Sorowako-Limonite projects, with a production capacity of 300,000 tons of mixed hydroxide precipitate (MHP) per year. This technology has a lower energy intensity compared to the rotary kiln electric furnace (RKEF) technology currently used in Sorowako, supporting more sustainable nickel production and emission reductions. The construction of the HPAL smelter in Bahodopi is scheduled to begin in the fourth quarter of 2025.

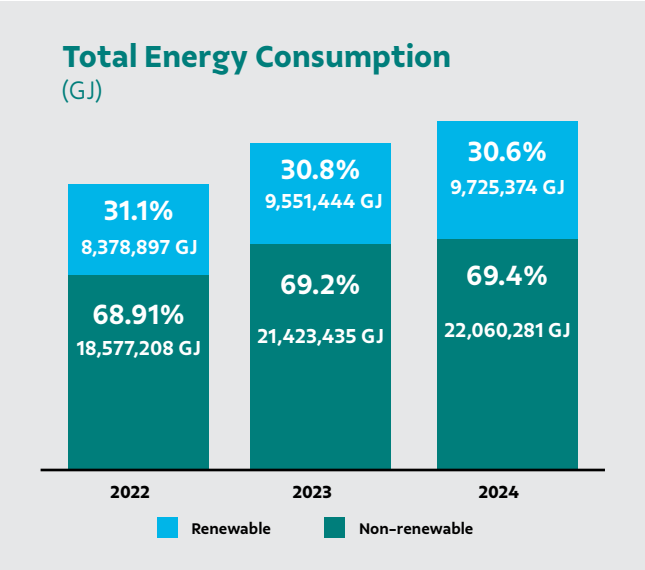
Through this strategy, PT Vale is not only reducing energy demand but also decreasing reliance on fossil fuels and accelerating the transition toward more environmentally friendly mining operations. This approach aligns with the company's long-term targets to reduce Scope 1 and 2 emissions by 33% by 2030 and achieve carbon neutrality by 2050.

Energy Managment

[POJK51-F.6][SASB EM-MM-130a.1]

Reducing fossil fuel consumption and increasing production efficiency are crucial steps in reducing the impact of climate change and supporting decarbonization efforts. Our energy consumption mainly comes from two nickel mining activities and production processes. In Sorowako, most of the energy is used for the nickel ore processing process to produce nickel matte through RKEF technology. The reduction kiln plays a significant role in this. The reduction kiln contributes about one-third of our total energy consumption, using coal and fuel oil (MFO) as the main fuel sources.

The calculation of energy consumption and intensity is carried out by referring to the IPCC guidelines and using a specific approach based on the ISO 50001 standard. In the 2024 reporting period, PT Vale recorded a total energy consumption of 31,785,655.01 GJ, with an energy intensity of 451.9 GJ/Ton Ni. There was an increase compared to the previous year, which was caused by an increase in fuel oil (MFO) consumption to remove ore moisture in the drying kiln and reduction kiln. The increase in ore moisture content is due to high rainfall with a monthly average of 281.5 mm in 2024 compared to a monthly average of 240.0 mm in 2023. In addition, the nickel content of the ore feed in 2024 is lower than in 2023 (1.75 Ni/ton compared to 1.76), so that to achieve the same results, more ore feed is needed which ultimately requires more energy.



Although these changes result in a temporary increase in energy intensity, PTVI continues to strive to balance operational needs with long-term sustainability goals. To address this challenge, we will implement an ore dewatering initiative in 2025 as previously explained, to reduce the moisture content of the ore feed, thereby achieving energy efficiency. The dewatering process which includes drainage arrangements in the wet ore feed storage area and roofing to avoid additional moisture content from rainfall can help manage the moisture content in the wet ore storage area. In 2024, the intensity of renewable energy usage reached 136.38 GJ/Ton Ni, an increase of 1.82% from 133.94 GJ/Ton Ni in 2023. This achievement reflects our dedication to encouraging the use of renewable energy and gradually reducing environmental impacts. In the reporting year, PTVI did not calculate consumption outside the organization.[GRI 302-1][GRI 302-2][GRI 302-3][GRI 302-4]

During 2024, renewable energy contributed 30.6% of PT Vale's total energy consumption. This reflects the company's commitment to reducing dependence on non-renewable energy by optimizing more environmentally friendly energy sources. This year, PT Vale has completely switched to B35 and no longer uses B30. B35 contributed 8.12% of the company's total renewable energy consumption, indicating an increase in the use of vegetable oil-based biodiesel.

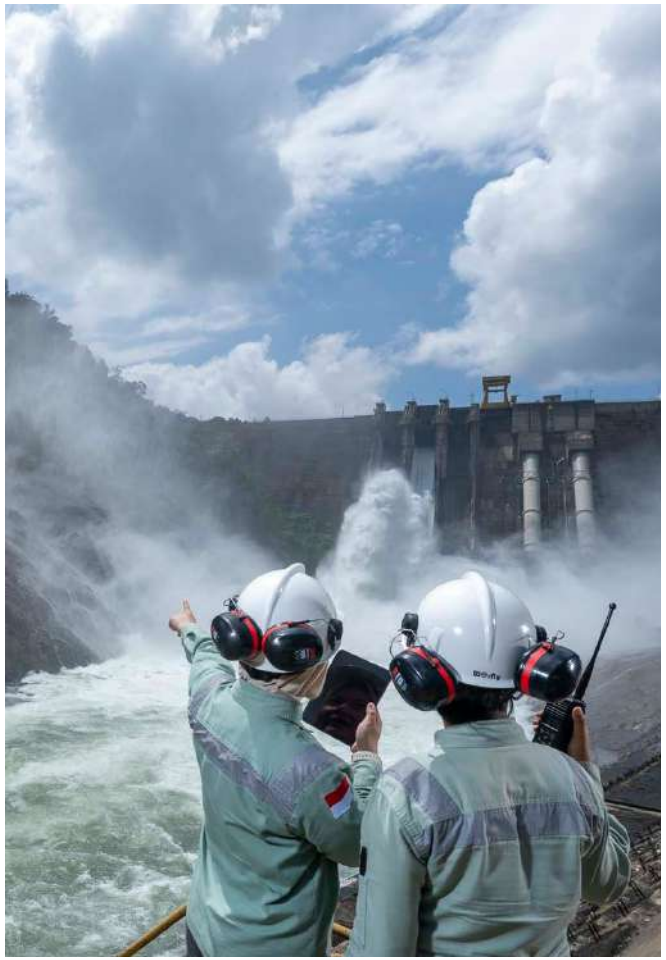
In addition to B35, PT Vale is also exploring the potential use of other renewable fuels, namely HVO as explained earlier. In November 2024, the company conducted a trial of the use of Hydrotreated Vegetable Oil (HVO), which has lower carbon emissions than B35 even though its price is higher. The use of HVO is in line with the company's decarbonization strategy and is an important step in efforts to reduce the carbon footprint. By adopting HVO in the mining sector and testing its use on heavy equipment, carbon emissions can be reduced by up to 70%, and greenhouse gas emissions by up to 80% compared to conventional diesel fuel.

In addition, as previously mentioned, PT Vale is also conducting trials on biomass as an alternative energy source for power plants, which is expected to expand the company's renewable energy portfolio in the future.[POJK51-F.5] [POJK51-F.7]

For routine operations of the RKEF processing plant in Sorowako, PT Vale utilizes renewable energy from three hydroelectric power plants (PLTA):

- Larona Hydroelectric Power Plant (3 x 68 MW)
- Balambano Hydroelectric Power Plant (2 x 68.5 MW)
- Karebbe Hydroelectric Power Plant (2 x 65 MW).

These three hydroelectric power plants produce clean energy that covers 28.11% of PT Vale's total energy needs. Not only meeting internal needs, the hydroelectric power plants also donate 10.7 MW of electricity to the East Luwu region, as a strong commitment to increasing clean energy for the surrounding community. [POJK51-F.5] [SASB EM-MM-130a.1] [POJK51-F.7]



Larona Hydroelectric Power Plant is the first in Indonesia to implement geomembrane and geotextile-lined channels, increasing water retention and reducing leakage. This innovation increases the efficiency and resilience of hydropower plants, and sets a new benchmark for sustainable energy.

This underscores our commitment to environmental stewardship and continues to inspire future projects, strengthening our leadership in renewable energy.

To see the Organizational Energy Consumption Volume (GJ) by energy source and usage, please refer to the data table in the Organizational Energy Consumption Volume (GJ) section.

This report has not calculated the amount of energy reduction/efficiency from products/services sold in 2024. This is because the delivery of nickel in matte uses vessels provided by the buyer, thus the calculation of energy based on the conversion of fuel consumption volume is not the responsibility of PT Vale.[GRI 302-5]

GHG Emission Monitoring and Reduction[POJK51-F.11][POJK51-F.12][SASB EM-MM-110a.2]

The calculation of GHG emissions in Sorowako includes Scope 1, which comes from fuel production and consumption activities, and Scope 2 from electricity consumption. Currently, PT Vale has not calculated Scope 3 emissions. However, in this reporting year, we have started to develop tools and map relevant emission sources as an initial step towards calculating Scope 3. We target to be able to calculate Scope 3 emissions in the next 1-2 years, in line with our commitment to present complete and transparent emission reports across the value chain.

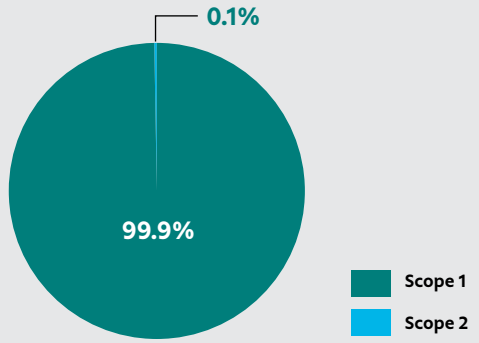
The calculation results are expressed in tons of CO_2e and include conversions from non-CO_2 GHG emissions such as CH_4, N_2O, and HFCs. PT Vale does not calculate biogenic CO_2 emissions. The calculation method refers to the energy consumption balance from fossil fuels and greenhouse gases, using a 2017 baseline and a Global Warming Potential (GWP) index of 1. The guideline used is from the Intergovernmental Panel on Climate Change (IPCC), with GWP referring to the fifth assessment report in 2014 (AR-5). [GRI 305-4]

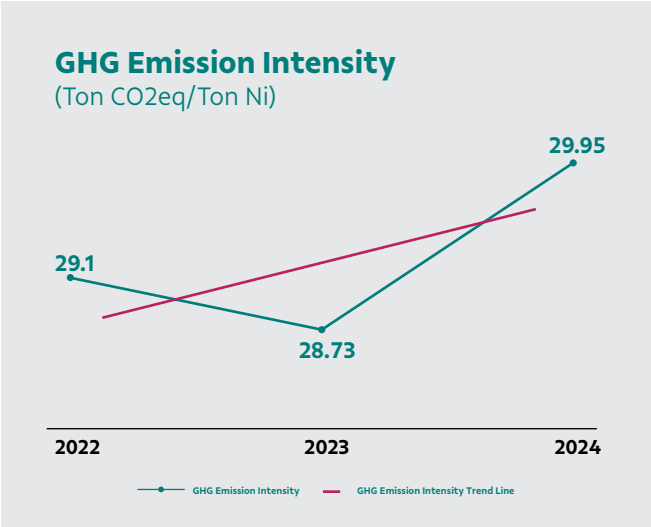
In 2024, PT Vale's total GHG emissions from Scope 1 and Scope 2 reached 2,135,742.00 tons of CO_2e. Of this amount, Scope 1 contributed 2,132,973.00 tons of CO_2e, while Scope 2 recorded 2,769 tons of CO_2e. This amount shows an increase of 6% compared to the 2017 baseline of 2,013,950 tons of CO_2e.
[GRI 305-1] [GRI 305-2] [GRI 305-3] [GRI 305-5][SASB EM-MM-110a.1]

In addition, PT Vale is committed to continuously monitoring the intensity of GHG emissions to ensure that each operational location remains within the established emission limits or targets. In 2024, our GHG emission intensity was recorded at 29.95 CO_2e/ton, indicating an increase of 4.25% compared to the previous year. This increase was due to increased consumption of fuel oil (MFO) to remove ore moisture in the drying furnace and reduction furnace. The increase in MFO consumption was due to increased ore feed moisture content due to higher rainfall and decreased nickel content compared to 2023 as explained in the previous sub-chapter.

Therefore, we continue to innovate in efforts to reduce ore moisture content, including redesigning wet ore storage to increase natural reduction in moisture content. In addition, in accordance with the decarbonization roadmap, we are currently focusing on utilizing exhaust gas and converting coal to biocarbon. Going forward, we will continue to evaluate and develop innovations to ensure that emission intensity remains on target and can continue to be reduced. [GRI 305-4]

GHG Emission Production





Emissions Containing Ozone Depleting Substances (ODS)[GRI 305-6]

PT Vale does not use HCF-22 (CHF2Cl) freon and has switched to more environmentally friendly freon. Most of the freon used is R32, which has an Ozone Depletion Potential (ODP) value of 0. We routinely calculate the use of freon, including it in the calculation of Greenhouse Gas emissions.

REALITAS Innovation: Energy Efficiency in Nickel Smelting Process[GRI 305-5]

PT Vale Indonesia implements the Nickel Slag Level Engineering innovation in Electric Furnaces (REALITAS) to improve energy efficiency in the nickel smelting process. Previously, slag level measurements were carried out manually by operators on the roof of the electric furnace. For work safety, these measurements could only be carried out when the furnace was off during routine monthly maintenance. This data limitation resulted in a suboptimal slag removal process, which resulted in increased electricity consumption.

As a solution, PT Vale implemented mechanized rod measurement (MRM), a mechanical measurement system that allows remote monitoring of slag without stopping furnace operations. With this technology, measurements can be carried out every day, so that the production process becomes more controlled and energy efficiency increases.

In 2024, the implementation of REALITAS has resulted in energy savings of 142,529 GJ, also encouraging an increase in the use of renewable energy by 2%, which contributes to reducing carbon emissions.

Logic Cascade[GRI 305-5]

PT Vale Indonesia Tbk (PTVI) uses coal and Marine Fuel Oil (MFO) to generate heat in the nickel ore smelting process. Coal also functions as a reducer in nickel refining. Previously, operators added coal manually by looking at the CO gas levels on the control screen. If combustion is not perfect, unburned coal increases, causing excess exhaust emissions and affecting product quality.

To overcome this, PTVI developed Logic Cascade, an automatic system that regulates the air supply in the combustion chamber. This system adjusts the speed of the air fan for more efficient combustion, thereby reducing unburned coal, maintaining product quality, and reducing environmental impacts.

During 2024, the energy efficiency generated by this program was 346,413 GJ and a reduction in GHG emissions of 33,285 TonCO_2eq.

Non-GHG Emission Control

[SASB EM-MM-120a.1][GRI 305-7]

In carrying out our operations, PTVI is not only committed to reducing GHG emissions, but also ensuring the management and control of non-GHG emissions produced. Non-GHG emissions that are the company's main focus include Sulfur Dioxide (SO_2) and Particulates. In calculating non-GHG emissions, we follow the methodology set out in PERMEN KLHK No.4/2014.

SO_2 Emissions

SO_2 emissions from operations come from the use of sulfur in the sulfidization process during nickel ore processing and the use of Marine Fuel Oil (MFO) and coal as energy sources. We have taken various steps to control these emissions, primarily stabilizing the process in the reduction furnace to optimize sulfur use. The calculation of SO_2 emissions uses the mass balance method by determining the emission intensity through the comparison of the weight of SO_2 emitted with the weight of the product produced, and is expressed in tons of SO_2/ton Ni.

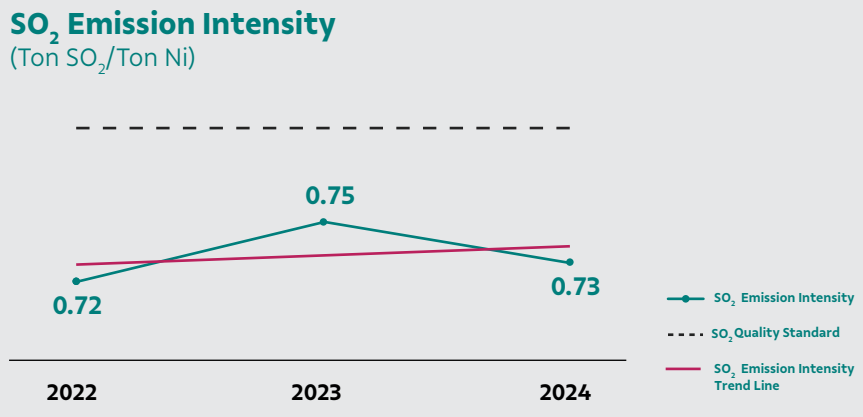
In 2024, the intensity of SO_2 emissions was recorded at 0.73 tons of SO_2 per ton of nickel (Ni), a decrease of 2.7% compared to the previous year which reached 0.75 tons of SO_2 per ton of Ni. This achievement demonstrates our ongoing commitment to keeping emissions below the set threshold of 0.8 tons of SO_2 per ton of Ni. Going forward, we will continue to strive to consistently reduce SO_2 emissions by focusing on increasing the efficiency of sulfur dioxide use.

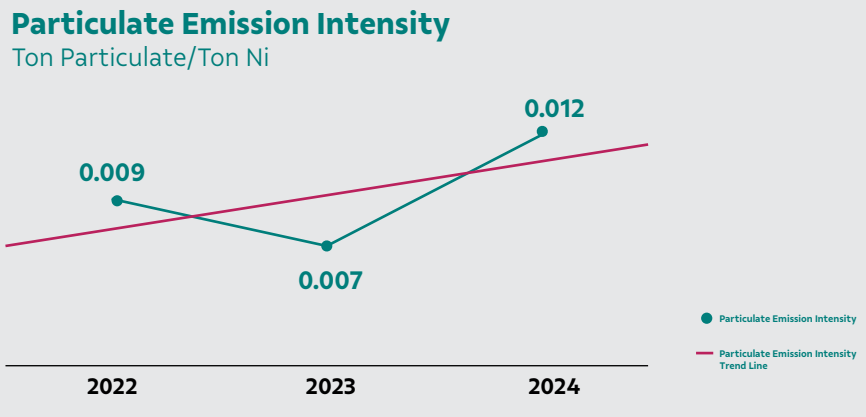
Particulate Emissions

PTVI continues to control particulate emissions through monitoring and measurement in accordance with applicable government regulations. This activity focuses on emission sources from dryer kiln, reduction kiln, electric furnace, and product dryer. Measurement of particulate intensity is expressed in tons of Particulate per ton of Ni (tons of Particulate/ton of Ni), which is an indicator of performance in reducing the environmental impact of our operations.

The amount of particulate emitted in 2024 was recorded at 879 tons, an increase compared to 2023 which was 600 tons, or an increase of 46.5%. The results of particulate intensity measurements also showed an increase, from 0.007 tons of Particulate/ton of Ni in the previous year to 0.012 tons of Particulate/ton of Ni in 2024. As explained in the previous GHG emissions section, this increase was influenced by a decrease in nickel levels in the feed. So to produce the same amount of product requires more feed to be processed.

To overcome this, in addition to existing programs, in the future PT Vale will initiate the Dust Agglomeration program, where dust is compressed into pellets so that it can suppress the dust circulating in the pollution control device (dusting rate). In 2024, the development progress of this program reached 57%, consisting of studies, trials, and construction. It is planned that this program can be fully implemented in 2026.





Baghouse Furnace Improvement on Electric Furnace No. 1 and 2

As part of the effort to reduce particulate emissions, PT Vale implemented the Baghouse Furnace Improvement program on Electric Furnace No. 1 and 2. Without an optimal filtration system, particulate emissions from the smelting process have the potential to increase, which can impact air quality and operational efficiency.

Through this filtration system improvement, emission control becomes more effective, reducing dust accumulation, and ensuring compliance with applicable environmental standards. In 2024, the system improvement on Electric Furnace 2 succeeded in reducing particulate emissions by 42 tons, and by 22 tons on Electric Furnace 1.

This initiative not only contributed to reducing emissions, but also improved operational performance by minimizing potential disruptions due to particulate buildup. This step is in line with the company's commitment to implementing cleaner and more sustainable industrial practices.

Water and Effluent Management[GRI 303-1]

Water is a crucial component in all operational phases of PT Vale. We use water for ore processing, equipment cleaning, environmental management, industrial use, sanitation, and human consumption. Our main water sources come from Lake Matano, Mahalona, and Towuti. PT Vale used most of the water for the operation of the Hydroelectric Power Plant in the Larona River. Water from this lake flows into reservoirs at the dam before being directed to canals to drive the turbines. All the water extracted is fully used in the operational process, so the amount of water consumed is equivalent to the volume of water taken from the source.[GRI 303-3]

We take water responsibly by regularly monitoring the availability and quality of water and ensuring that we do not take from areas with shortages (water stress), while also considering water clarity, employing efficient technologies, and implementing best practices to minimize environmental impact. Regular monitoring of water quality is also carried out to ensure that no pollutants enter the lake.[SASB EM-MM-210b.1]

PT Vale understands that the water quality of Lake Matano is affected by external activities and operational activities. Therefore, we implement the Matano Iniaku program, which not only focuses on the restoring of critical land but also involves the community in polyculture farming, ecotourism, and agricultural product processing. The goal is to maintain the quality of the lake's water, empower the community, and promote better environmental management.

This lake is also utilized by the local community for daily needs, livelihoods as fishermen and farmers, and for transportation. Consequently, the PT Vale is committed to sustainably and collaboratively managing water resources, protecting water source sustainability, and ensuring fair utilization. PT Vale manages the volume and flow of water for the operation of the hydroelectric power plant to ensure the sustainability of the lake and its continued use by the community. This commitment also aligns with the status of the three lakes as part of the Natural Tourism Park Conservation Area, as designated by the Minister of Agriculture's Decree No. 274/Kpts/Um/4/1979 dated April 24, 1979.

In managing water and effluent, PT Vale follows three key principles:

1. Participate in water management forums within the operational and surrounding areas.
2. Preserve the quantity and quality of both surface water and groundwater.
3. Promote continuous improvement in water and effluent management.

To ensure that the water returned to the environment meets quality standards, effluents from various operational processes are collected and treated before being discharged into Lake Matano. One of the systems employed is called the Lamella Gravity Settler (LGS), which serves as a final collection and processing unit before the effluents are discharged into Lake Matano. This process involves several key stages, including sedimentation, solid particle separation, and further treatment to reduce pollutant levels such as Total Suspended Solids (TSS) and hexavalent chromium (Cr6+).[GRI 303-4] [GRI 14.6.1] [GRI 14.6.2]

Wastewater from various operational processes is collected, analyzed in an internal laboratory, and monitored regularly before being discharged into Lake Matano. This monitoring ensures that the effluents comply with quality standards as stipulated in the applicable regulatory permits.

The flow rate of wastewater discharge is measured using direct measurement methods with periodically calibrated instruments. All calculations and monitoring are based on the wastewater quality standards set by the Ministry of Environment Regulation No. 9 of 2006 and the provisions in Decree No. 1295/MENLHK/SEKJEN/PLA.4/12/2023.[GRI 303-2] [GRI 303-4]

PT Vale is a pioneer in using Lamella Gravity Settler (LGS) technology in mining and mineral processing. Developed in collaboration with BPPT, this technology speeds up the process of separating solid particles from water, making it easier and more efficient to clean wastewater. With its ability to reduce pollutants such as Total Suspended Solids (TSS) and hexavalent chromium (Cr6+), the LGS ensures that the water discharged into Lake Matano meets environmental quality standards. This reflects PT Vale's compliance with environmental regulations and its ongoing efforts to protect water quality and maintain the sustainability of the lake's ecosystem.[GRI 303-1]

PT Vale carefully manages and tracks water use by creating a Water Resources Committee and using the SWAP (Steam, Water, Air, and Power) online system. SWAP allows for real-time monitoring of water usage, thereby helping to enhance efficiency and ensure more accurate management.

We also involve local communities in monitoring water quality, particularly in areas that may be affected by operational activities. During regular meetings with representatives of key water users and the community, we discuss progress of the monitoring, which are then reported annually to the Sustainability Committee. This step ensures transparency and accountability, while also strengthening the role of the community in jointly maintaining water quality.

To realize this commitment, PT Vale has established the 2030 Water. The goal is to reduce the direct use of freshwater for each ton of production, meaning we aim to use water more efficiently without affecting production levels. This target helps Sustainable Development Goal (SDG) No. 6, which focuses on ensuring the availability and sustainable management of water and sanitation for everyone.

To achieve the Water Intensity Reduction Target for 2030, PT Vale is implementing several measurable initiatives, including:[GRI 303-1]

- Improving water use efficiency in plants, mining operations, offices, and supporting facilities by 1% each year.
- Reducing the pollution load from wastewater generated by company operations and surrounding community activities, with targets to decrease Total Suspended Solids (TSS) by 30 tons per year and hexavalent chromium (Cr6+) by 0.05 tons per year.

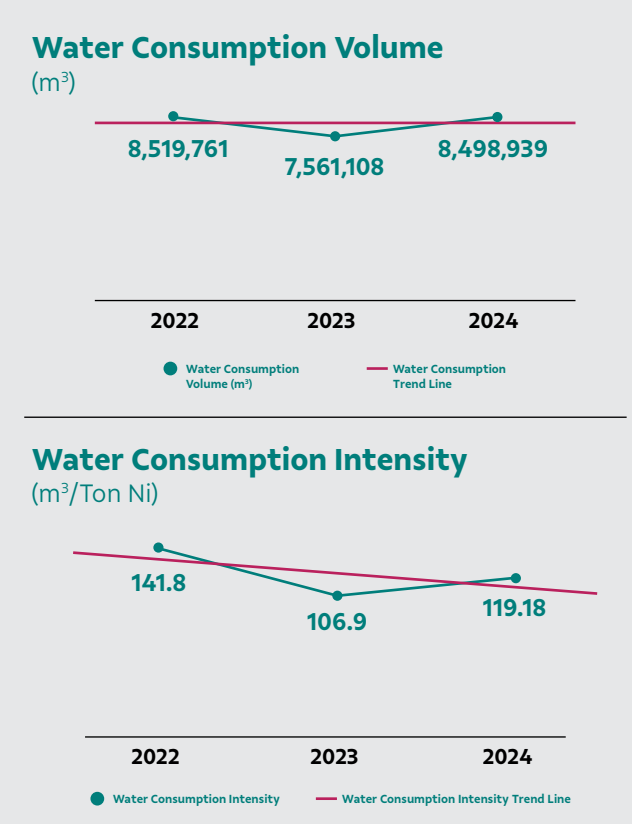
PT Vale is investing in expanding the water monitoring network, recycling effluents, using the latest technologies, and conducting studies to improve sustainable water management. These efforts take into account the limits of water extraction in the operational and surrounding areas of PT Vale, and align with the principles of the International Council on Mining and Metals (ICMM).

This calculation of water consumption and intensity refers to the reporting methodology of the International Council on Mining and Metals (ICMM). In 2024, our total water consumption was recorded at 8,498,939 m³, an increase of 12.4% compared to the previous year. The intensity of water use also increased by 12.3%, from 106.9 m³/ton Ni to 119.18 m³/ton Ni. As explained in the emissions sub-chapter, the decrease in nickel content in 2024 resulted in the need for a larger feed to produce an equivalent volume of nickel (matte) product. This condition also drove an increase in the intensity of water consumption throughout the year.[POJK51-F.8] [GRI 303-3] [GRI 303-5][SASB EM-MM-140a.1]

Nevertheless, we remain committed to maintaining and improving the efficiency of water use through various innovations and developments that focus on the application of water recycling in the production process. One of the initiatives that we have implemented is the utilization of recycled water from Lamella Gravity Settler as raw material for Ferrousulphate solution, with a total utilization of 510 m³. This step is in line with our commitment to strengthen sustainable water management and reduce dependence on water resources from the environment (fresh water). In the future, we will also study the potential for implementing this water recycling in the nickel slag cooling process and the ore screening process at the screening station.

Responsible Effluent Management

A study carried out in 2023 at PT Vale's mining area in Sorowako, which is still valid today, found that there is no risk of acid mine drainage (AMD) forming at the site. This has been confirmed by the absence of rocks that could produce AMD in the mining area. AMD is a primary concern in the industry, as it can harm ecosystems and water sources such as rivers, lakes, and groundwater. Therefore, responsible environmental management, particularly liquid waste, is of utmost importance.[SASB EM-MM-160a.2]



We are committed to protecting the environment by making sure all liquid waste meets quality standards. We regularly send samples of treated wastewater to accredited independent labs for testing, using methods based on SNI 6989.59:2008 and standard APHA procedures. This process is designed to ensure the accuracy and independence results, confirming that our management practices fully comply with the required standards and do not negatively impact the surrounding environment.[SASB EM-MM-140a.2]

As part of our responsible water management system, we also measure the total effluent discharge from our operations. In 2024, a total of 100,709,801 m³ were discharged into various water bodies in accordance with applicable regulations and permits. The majority was discharged into the Petea River (50,716,130 m³), Lake Matano (25,639,690 m³), Lake Mahalona (20,648,522 m³), and the Salo Lamunto River (3,705,430 m³). In the reporting year, there was no discharge of water originating from third parties or water transferred to third parties.

In Sorowako, we monitor the quality of wastewater before it is released into water bodies through 11 monitoring points to measure the concentration of Total Suspended Solids (TSS), Total Chromium (Cr Total), Hexavalent Chromium (Cr6+), Iron (Fe), and Nickel (Ni). Wastewater quality checks at various sites in 2024 showed that all results stayed within the allowed limits. [SASB EM-MM-140a.2]

Several monitoring locations with the largest volumes of processed wastewater include Petea Far East (38,815,275 m³), Petea West (13,099,563 m³), and Petea East (11,900,854 m³). At these sites, TSS concentrations ranged from 9.01 to 11.84 mg/L (with a quality standard of 200 mg/L), while the levels of Cr Total, Cr6+, Fe, and Ni also remained within the established limits. Further data on wastewater quality measurements at each location can be found in the Data Table chapter under the Results of Effluent Quality Measurements for 2024.[POJK51-F.13]

Through the implementation of a comprehensive monitoring system and sustainable wastewater management, we ensure that all our operational activities are conducted in accordance with sustainability principles and comply with applicable environmental regulations.

Intelligent Coagulant for Mine Water Treatment (INCO MATTE)

PT Vale has implemented the INCO MATTE system to optimizing the mine water treatment process through automates the dosing of coagulants ($FeSO_4$) based on the inflow of water into the sediment pond system. Previously, this dosing was adjusted manually, posing a risk of over- or under-dosing coagulants, which affects the quality of the discharge water. With this innovation, the use of coagulants has become more precise, successfully reducing Cr6+ levels by 0.11 tons of Cr6+, maintaining pH balance, and decreasing pollutant loads such as TSS and Fe by 87 tons of TSS.

Overflow Control Sensor in Matte Pond (POLICE SENSOR in MP)

In the smelting cooling system, PT Vale Indonesia utilizes circulating water between the matte pond, cooling tower, and furnace. Previously, operators added make-up water manually, which often led to overfilling and waste. To solve this, PT Vale has implemented the automatic POLICE SYSTEM in MP, a water level sensor that alerts operators to manage water addition more efficiently. This innovation has reduced water consumption by 133,540 m³ per year while enhancing the efficiency of the cooling system.

Substitution of Cooling Water with Air in Furnace 4 (SUPER FURNACE 4)

PT Vale Indonesia has developed the Super Furnace 4 innovation to reduce water consumption in the cooling process of Furnace 4. In the past, this furnace required a large amount of water to maintain its temperature. With this new innovation, PT Vale now uses air blown in by blowers instead, which has greatly reduced water use. This implementation successfully saves 22,536 m³ of water per year while improving operational efficiency.

Waste Management[SASB EM-MM-150a.4][GRI 306-1] [GRI 306-2]

PT Vale is committed to reducing waste production through comprehensive environmental management. We aim to achieve zero waste to landfill by 2025, five years earlier than the government's target. This goal is being achieved by optimizing waste management across all areas of our operations, including mining, production, support activities, and domestic waste.

The solid waste generated at our operational sites is categorized into two main types: hazardous and toxic waste (B3) and non-B3 waste. To manage waste responsibly, PT Vale has developed a comprehensive strategy focused on prevention, reduction at the source, reuse, recycling, and recovery (the 4Rs) to minimize the amount of waste sent for final disposal. All waste management data is recorded and reported through the Simpel and SiRaja systems managed by the Ministry of Environment and Forestry.

During the reporting period, no hazardous waste (B3) was sent internationally, and there were no significant spills of waste materials that could harm the environment. Additionally, as previously explained, PT Vale employs a Reduction Kiln Electric Furnace (RKEF), which does not produce tailings waste. [POJK51-F.14] [POJK51-F.15][GRI 306-2][GRI 306-3][GRI 306-4][GRI 306-5][SASB EM-MM-150a.5][SASB EM-MM-150a.9] [SASB EM-MM-150a.10][SASB EM-MM-540a.1][SASB EM-MM-540a.2][SASB EM-MM-540a.3]

The following table summarizes the types of waste generated by various activities, along with their management methods: [GRI 306-1][GRI 306-3][GRI 306-4][GRI 306-5]

Activities	Types of Waste	Waste Management[GRI 306-4]
Production (equipment maintenance)	Used oil and grease	Used as a fuel substitute. The entire amount of used oil produced, which is 1,107 tons, has been reused.
Produksi (pemeliharaan peralatan)	• Used lubricants and oils • Used batteries • Waste contaminated with heavy metals • Asbestos waste • Health care waste (incinerator ash) Contaminated waste • Lubricants and waste • Special waste	Sent to third parties.
Health Services	Medical Waste	Processed internally in a licensed incinerator (RS INCO). The incinerator ash is then sent to a licensed third party.
Mining	Overburden	Overburden, including topsoil, is used as backfill material in areas that have been mined and then rehabilitation activities are carried out.
Production Activities	• Furnace Slag • Converter Slag	Nickel slag is used as a construction material for the top layer of special mining roads. In 2024, PTVI has utilized 377,964.29 tons of nickel slag. This utilization has been approved by the government based on the Technical Details Document for Registered Non-B3 Waste Management for Non-B3 Waste Utilization Activities with Decree Number SK 1295/Menlhk/Setjen/PLA.4/12/2023.
Supporting Activities	• Non-industrial household waste • Industrial household waste • Metal waste generated	Reused and recycled, both internally and by third party entities.

Hazardous Waste[GRI 306-1]

In managing hazardous and toxic waste, PT Vale complies with all applicable regulations to prevent harm to human health and the environment. We refer to the Ministry of Environment and Forestry Regulation No. 18 of 2020 on hazardous and toxic waste management, as well as Regulation No. 6 of 2021, which outlines procedures and requirements for handling such waste. Every step of the process—from reduction, storage, and transportation to reuse and treatment—is carried out carefully to avoid pollution. All hazardous and toxic waste is managed by authorized and competent third parties to ensure full regulatory compliance.

In 2024, we generated 2,696.6 tons of Hazardous and Toxic Waste from production activities. The largest type of B3 waste produced was used oil and grease, amounting to 1,135.5 tons, followed by waste containing heavy metals at 934.96 tons, and waste contaminated with oil and grease at 525.27 tons. Additionally, we also produced medical waste totaling 10.21 tons, used batteries amounting to 30.38 tons, and other types of special waste. More detailed information regarding the composition of hazardous and toxic waste is available in the Waste Production Data Table. [SASB EM-MM-150a.7]

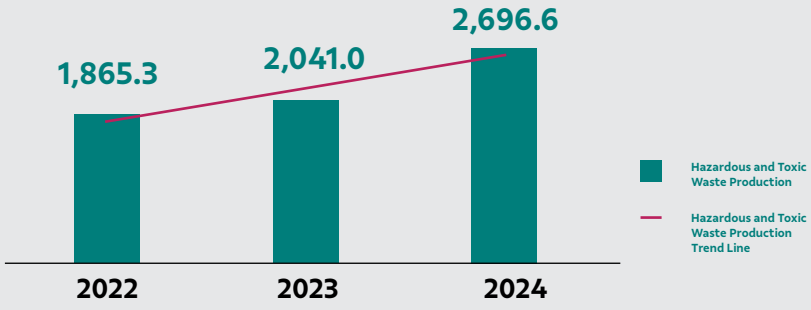
The amount of hazardous and toxic waste increased by 32.1% compared to the previous year. This rise was mainly due to increased production activities, including maintenance work at factory facilities, such as relining the walls of converters. As a result, more solid waste contaminated with heavy metals—such as used refractory materials—was generated. According to regulations, this type of waste is classified as hazardous and toxic waste.

Out of the total waste generated, 1,107 tons of B3 waste has been managed according to the applicable regulations. The waste that has been reused consists entirely of used oil and grease, which have been repurposed as a substitute for fuel after undergoing processing in accordance with licensing.

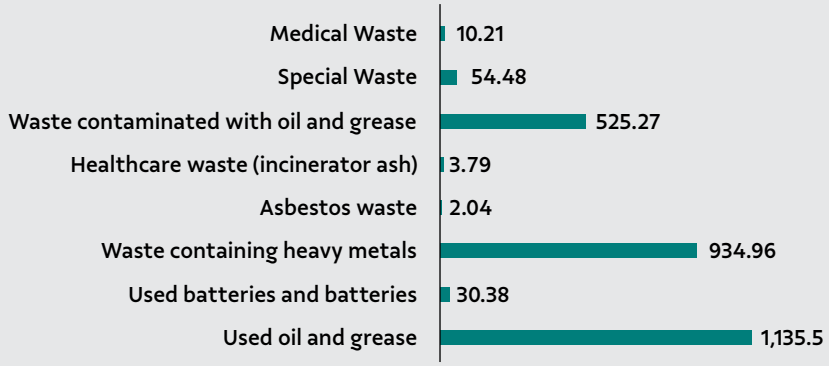
Meanwhile, 1,589.6 tons of non-processed waste were disposed of in landfills in accordance with applicable regulations. Medical waste is managed specifically through an incineration process at the INCO hospital, which is properly licensed, with the resulting ash and other hazardous materials handed over to a licensed third party for further management. [SASB EM-MM-150a.8]

In addition, waste from supporting activities is also recycled and reused, both within the company and through licensed third-party vendors responsible for waste management. [GRI 306-3] [SASB EM-MM-150a.7] [SASB EM-MM-150a.8]

Hazardous and Toxic Waste Production
(Tons)



Waste by Composition
(Tons)



Reusing Used Oil as Fuel Substitute in Dryer and Reduction Kiln

The used oil utilization program as a substitute fuel for the Dryer and Reduction Kiln aims to optimize the use of waste generated from workshop areas and maintenance activities of heavy equipment and light vehicles. By utilizing used oil as an alternative fuel, this program not only supports energy efficiency in the company's operations but also contributes to reducing the amount of hazardous waste sent to licensed third parties. Moreover, this initiative aligns with the principles of a circular economy by promoting resource reuse and supporting proper waste management practices. In 2024, the program successfully reduced hazardous waste by 1,107 tons.

Optimizing Engine Oil Replacement with Centrifugal Filter (OPO-Center)

This program was developed to enhance efficiency in engine oil usage. Through this technology, the lifespan of the oil can be extended, significantly reducing the frequency of oil changes. This directly impacts the reduction of hazardous waste generated and improves resource efficiency. The innovation also contributes to the company's operational efficiency by lowering the need for new oil purchases and supporting more sustainable environmental management practices. In 2024, the program successfully reduced hazardous waste by 4 tons.

Non-Hazardous Waste [GRI 306-1][GRI 306-2]

[SASB EM-MM-150.a.6]

PT Vale bases its non-hazardous waste management on the Regulation of the Minister of Environment and Forestry (LHK) No. 19 of 2021, which outlines the proper handling of non-hazardous waste. It is necessary to manage this non-hazardous waste to create a clean and healthy environment for ourselves and the surrounding community.

Below are the details of our non-hazardous waste production based on activity and type:

Activities	Type of Waste	Unit	Total
Mining Activities (Mine Waste)	Topsoil	WMT	371,243.67
Mining Activities (Mine Waste)	Overburden	WMT	36,012,124.64
Production Activities (Smelting Activities)	Furnace Slag	Tons	4,212,058
Production Activities (Smelting Activities)	Converter Slag	Tons	380,417
Supporting Activities	Non-industrial waste generated.	Tons	1,461
Supporting Activities	Industrial household waste generated.	Tons	5,906
Supporting Activities	Scrap metal waste generated	Tons	6,347

As previously explained, all non-hazardous waste with potential for reuse has been used in accordance with applicable regulations. In 2024, PTV reused nickel slag totaling 377,964.29 tons. This nickel slag was used as a construction material for the surface layer of specialized mining roads. Additionally, waste generated from supporting activities is also recycled and reused, both within the company and through partnerships with licensed third-party waste management providers. [GRI 306-3][SASB EM-MM-150a.7]

Turning Organic Waste into Animal Feed with Tiered Biopond Innovation (TRAMPIL WOLIKO)

PT Vale has launched the TRAMPIL WOLIKO program to improve how organic waste is managed by using Black Soldier Fly (BSF) larvae. Due to the rapid growth of BSF larvae, a large number of bioponds are needed, which can take up a lot of space. To overcome this, PT Vale developed tiered bioponds made from used wooden pallets to save space. In 2024, this innovation helped speed up the breakdown of organic waste and increase the BSF population. The larvae are then used as animal feed by the Woliko Berkembang farmer group. During the reporting year, the program successfully processed 5.60 tons of organic waste.

Track Shoe Regrouser

The Track Shoe Regrouser Program PTVI's initiative aimed at extending the service life of bulldozer track shoes by adding plates to the worn grouser sections. This initiative was driven by the high volume of scrap metal waste generated from full track shoe replacements, even though other components remained usable. In 2024, the program successfully reduced non-hazardous waste by reutilizing 60 tons of scrap metal.

Vale Goes to School at SMPN 1 Baula: Building Environmental Awareness Early

The issue of waste, particularly plastic waste, poses a serious challenge for Indonesia, impacting both ecosystems and public health. In response to this situation, PT Vale Indonesia Tbk (PT Vale) has demonstrated its commitment to environmental sustainability through various initiatives, including the educational program "Vale Goes to School." Targeting elementary and middle school students, this program aims to cultivate environmentally conscious future generations. Through educational activities conducted in several schools in the Pomalaa area, students are taught creative ways to manage organic and inorganic waste, such as turning it into compost and crafting handicrafts from plastic waste.

In addition to educational initiatives, PT Vale also implements environmental management practices in its operational areas, such as maggot cultivation to process organic waste and recycling inorganic waste into reusable products. As part of its sustainable mining commitment, PT Vale is developing a 5-hectare nursery at Kolaka Botanical Garden, with the capacity to grow up to one million seedlings per year. These seedlings will be used for post-mining land reclamation to help restore the land's ecological function.

Moving forward, PT Vale plans to expand this program to more schools, create more interactive learning materials, and partner with local environmental organizations. Through these collaborative efforts, PT Vale continues to inspire community awareness and involvement in protecting the environment for a better future.

Biodiversity Protection[POJK51-F.10]

PT Vale recognizes that biodiversity is a vital component of healthy ecosystems and provides irreplaceable ecological, social, and economic benefits to surrounding communities and the environment. As a mining company, our operations have the potential to affect biodiversity and ecosystems around our sites—through habitat changes, ecosystem fragmentation, species population decline, environmental pollution, and the possible introduction of invasive species.

Many of our mining areas are located within or near forested regions with high ecological value, which offer essential ecosystem services such as clean water supply, carbon absorption, and habitats for diverse species. Given these considerations, we are committed to aligning our operations with biodiversity conservation principles and minimizing impacts, particularly in or near protected areas.[GRI 304-2]

PT Vale integrates sustainability principles into the protection and preservation of biodiversity from mining impacts. As part of this effort, we continuously explore the application of the "no net loss" and "net positive impact" principles. In line with our Sustainability Policy, we also commit not to develop new mines in protected areas without prior government approval. [GRI 101-1]

In managing impacts on biodiversity, we adhere to the following mitigation hierarchy [GRI 101-2]:

1. Avoid: Selecting locations and technologies that minimize impacts on biodiversity from the planning stage.
2. Minimize: Reducing impacts during the design and construction phases through best practices and technological innovations.
3. Restore: Conducting rehabilitation and restoration of affected environments to restore ecosystem functions.
4. Offset: As a last resort, we compensate for ecological losses through appropriate compensation programs.

To avoid impacts on biodiversity, PT Vale has established buffer zones in the lake shore area as protected areas where mining activities are not permitted, in order to preserve the ecological functions and sustainability of habitats around those water bodies. Additionally, we also ensure that karst zones remain free from mining activities due to their fragile ecological and hydrological characteristics, which are critical for biodiversity conservation

To further minimize impacts, we reduce the amount of disturbed land through progressive reclamation, carried out in line with our Reclamation and Post-Mining Plan and

The Mitigation Hierarchy for Managing Biodiversity Risk

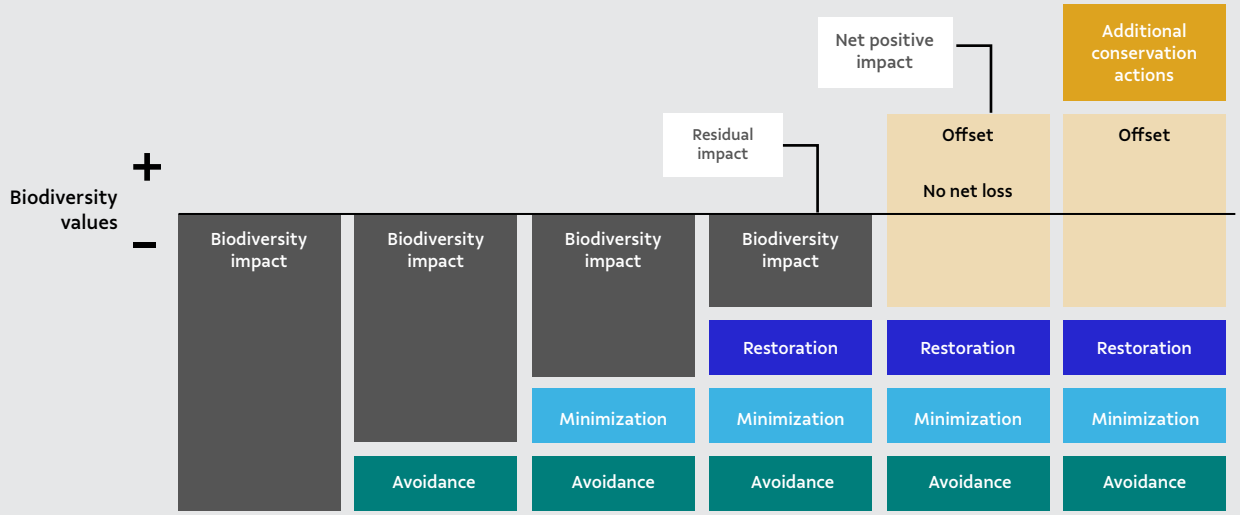


Image adapted from:
UN Global Compact and IUCN 2012 Publication: A Framework for Corporate Action on Biodiversity and Ecosystem Services (pg. 14)

Government Regulation No. 78 of 2010. This approach involves integrating mining and reclamation plans using a compartmentalized system to optimize land restoration through backfilling. More details on this are provided in the next section.

As part of our biodiversity conservation efforts, we begin by conducting flora and fauna inventories to gather baseline data before mining begins. To address potential species-related impacts, we also implement several ex-situ conservation programs, including:[GRI 101-6][GRI 101-8]

1. Conservation of native tree species through the collection of seedlings at various growth stages (seedling, sapling, and pole) for planting and maintenance in an arboretum.
2. Application of root-balling techniques for local seedling production, with geo-tagging used for monitoring their growth and survival in rehabilitation areas.
3. Establishment of the Sawerigading Biodiversity Park as a conservation center for flora, particularly pollinator-dependent plants, and as part of a local butterfly conservation initiative.
4. Upgrading the Timor deer (Rusa timorensis) breeding program to a specialized wildlife conservation center, currently under review by the Natural Resources Conservation Agency (BKSDA).
5. Designation of the Himalaya reclamation area as an arboretum on post-mining land.

In 2024, PT Vale undertook the following biodiversity restoration actions:

1. Replanted 67,903 native trees across 62 hectares of rehabilitated mining land, representing 34 species, including *Nyatoh, Bitti, Betau, Dengen, Agathis, Jamu-jambu*, and *Mata Kucing*.
2. Breeding of 22 local Timor deer (*Cervus timorensis*).
3. Restoration and rehabilitation of 204 hectares of mangrove ecosystems, by planting Rhizophora species.

These initiatives are part of our broader commitment to reduce the negative impacts of mining and ensure the long-term sustainability of ecosystems around our operations. As part of our continued improvement efforts, PT Vale will conduct a comprehensive study in 2025 to develop a detailed biodiversity conservation strategy, supporting our step-by-step goal to achieve no net loss and ultimately a net positive impact on biodiversity.

As a tangible manifestation of its commitment to biodiversity conservation, PT Vale has designated the Sawerigading Wallacea Biodiversity Park (Kehati) as a special area for conservation, education, and recreation functions. Spanning an area of ± 71.8 hectares, this park serves as a home for various local plant species, a breeding ground for Timor deer (Rusa timorensis), as well as a conservation site for local and endemic butterflies.

The park was officially designated by PT Vale in August 2024 and later formalized through East Luwu Regent Decree No. 54/D-05/II/2025. The Sawerigading Wallacea Biodiversity Park not only reflects the company's commitment to environmental protection but also opens opportunities for learning and public engagement in preserving local biodiversity.

Cocogrow for Accelerated Dengen Conservation (*Dillenia celebica and Dillenia serrata*)

In 2024, PT Vale developed the Cocogrow Program to accelerate the conservation of Dengen (*Dillenia celebica and Dillenia serrata*)—endemic plant species from Sulawesi listed as Endangered on the IUCN Red List. Previously, Dengen propagation relied on conventional generative methods using seeds and seedlings, which posed genetic uncertainty and required over a year to produce plantable saplings.

To overcome these challenges, PT Vale collaborated with researchers from Hasanuddin University to develop a vegetative propagation technique using grafting, with a growing medium composed of cocopeat and nutrient-rich coconut water. This method significantly accelerated root formation, enabling the plants to be ready for planting in just three months, while maintaining genetic consistency with the parent plants.

In addition to contributing to the "No Net Loss Biodiversity" target, the program also generated economic value through industrial symbiosis. PT Vale teamed up with the Fruit Growers Association (GAPETAB) in Towuti subdistrict as the cocopeat supplier, generating an annual income of IDR 78 million, projected to increase to IDR 99.5 million over the next five years. Furthermore, the HIPHO (Organic Herbal Enthusiasts Group) processes Dengen fruit into herbal drinks, with an annual sales potential of IDR 57.15 million from 5,715 packaged juice products.

PT Vale's Climate Action: 1,000 Mangrove Saplings and Crab Release

To celebrate World Ozone Day, PT Vale held an environmental event on September 28, 2024, in Pasi-pasi Village, Malili, East Luwu. The company planted 1,000 mangrove trees (Rhizophora mucronata and Rhizophora aviculata) and released mud crabs to help restore and protect the coastal ecosystem.

The activity brought together local residents, the East Luwu Government, the Indonesian Marine Conservation Foundation (YKCLI), and the Coastal and Marine Resource Agency (BPSPL) Makassar. During the event, PT Vale also opened a 100-meter mangrove trail to educate people about the importance of caring for the coast and protecting the ozone layer.

PT Vale is committed to protecting biodiversity and reducing carbon emissions, with the goal of creating long-term benefits for the environment and future generations.

Land Reclamation and Rehabilitation CoW[SASB EM-MM-160a.1

Land Rehabilitation

PT Vale is committed to promptly rehabilitating areas that have been mined to minimize environmental impact. Beyond reducing environmental effects, rehabilitation aims to restore land functions to their intended purposes and enhance ecological value by maintaining biodiversity. Effective rehabilitation is crucial to minimize environmental impacts and prevent long-term risks such as landscape degradation, loss of endemic species, and adverse social effects on surrounding communities.

To ensure the sustainability of rehabilitation efforts through to post-mining stages, PT Vale has developed a rehabilitation and mine closure plan approved by the Ministry of Energy and Mineral Resources (ESDM). This plan is periodically updated to remain compliant with regulations and current field conditions. The Ministry of ESDM also conducts regular monitoring and evaluation to ensure that success criteria are met before the land is handed over to the government. Success criteria include land management, revegetation, and final closure in accordance with applicable approvals and regulations.[GRI 14.8.4] [GRI 14.8.5]

As previously explained, PT Vale Indonesia Tbk's mining operations are located within a concession area held under a Contract of Work (CoW) with the Government of the Republic of Indonesia, amended in 2014 and subsequently updated through the issuance of a Special Mining Business License (IUPK) on May 13, 2024. This IUPK extends the license period until December 28, 2035.

Part of the operational area is within protected forest zones, and for activities in these zones, the company has obtained a Forest Area Use Permit (IPPKH) from the Ministry of Environment and Forestry in accordance with applicable laws and regulations. Additionally, the operational area is not within active conflict zones.[GRI 304-1][GRI 101-5][SASB EM-MM-160a.3][SASB EM-MM-210a.1]

Regarding contract transparency, the complete documents of the IUPK and other permits are not publicly available due to legal provisions and confidentiality clauses applicable in the mining sector in Indonesia. Nevertheless, PT Vale remains committed to information transparency and regularly discloses updates on its permit status and operational activities through official press releases and public disclosures published on the Indonesia Stock Exchange (IDX) website.[GRI 14.22.5]

As part of its impact mitigation strategy, PT Vale strives to minimize the area of land opened each year. During the reporting period, 177.70 hectares of new land were cleared for mining operations in Sorowako. By the end of 2024, the total land area used for mining reached 5,895.4 hectares. Of this, 3,791.1 hectares have been progressively rehabilitated, leaving 2,104.3 hectares still open. For a detailed breakdown of land disturbed and rehabilitated over the past three years, please refer to the Data Table section of this report. In the Bahodopi and Pomalaa areas, no land has been cleared for mining activities yet; land clearing in these areas has been limited to construction purposes only.[GRI 101-5] [GRI 101-7]

This year, land reclamation took place in three mining blocks in Sorowako, covering a total of 178.98 hectares. This included 75.69 hectares in the West Sorowako Block, 38.45 hectares in the East Sorowako Block, and 64.85 hectares in the Petea Block. The total area reclaimed was 20.3% less than the previous year's 224.4 hectares. This decrease was mainly due to fewer mined areas being available for rehabilitation than initially planned.

Out of the total land reclaimed in 2024, 38.74 hectares were carried over from unmet reclamation targets in 2023, based on the 2024 integrated evaluation by the Directorate General of Mineral and Coal at the Ministry of Energy and Mineral Resources. As a result, the actual area successfully reclaimed in 2024 was 140.24 hectares—about 52% of the 265-hectare target outlined in the 2023–2025 Reclamation Plan.

The reclamation area target for 2024 was not achieved due to the initial reclamation plan not accounting for the use of limonite material as feed for the HPAL processing technology to produce MHP. The utilization of limonite, previously considered as overburden and left unused, was introduced as a mineral conservation initiative in 2024. This shift has resulted in prolonged backfilling activities due to the reduced availability of overburden material, which in turn has extended the time required for landfills (disposal areas) to be ready for rehabilitation. In response to this situation, PT Vale submitted a request to revise the reclamation plan in August 2024, which is currently under review for approval.[GRI 14.8.6]

Watershed Land Rehabilitation Outside the Contract of Work (CoW)

[GRI 304-1][SASB EM-MM210a.1][SASB EM-MM-160a.3]

[POJK51-F.9]

Beside rehabilitating mined land, PT Vale also carries out reforestation and greening efforts outside of its mining areas, focusing on degraded land and watershed areas (DAS), in accordance with Indonesia's Ministry of Environment and Forestry Regulation No. 59 of 2019. These rehabilitation efforts cover 18 districts across four provinces: South Sulawesi, Central Sulawesi, West Java, and Bali.

In 2024, PT Vale's watershed rehabilitation activities progressed through several stages:

1. South Sulawesi – Batch 1: Plant geotagging was conducted across 10,000 hectares to support the assessment and formal handover of watershed rehabilitation areas from PT Vale to the Ministry of Forestry. This batch included areas in East Luwu, North Luwu, Luwu, Tana Toraja, North Toraja, Enrekang, Pinrang, Soppeng, Bone, Barru, Maros, Gowa (including Gowa 2), and Takalar.
2. South Sulawesi – Batch 2: Planting and initial maintenance (P0) took place on 4,230 hectares across several districts, including Barru, Bone, Enrekang, Gowa, Jeneponto, Pare-Pare City, Luwu, East Luwu, Pinrang, Sidenreng Rappang, Tana Toraja, and Wajo.
3. Central Sulawesi: P0 planting and maintenance covered 2,310 hectares—17 hectares in Palu and 2,293 hectares in Tojo Una-Una.
4. West Java: First-year maintenance (P1) was conducted across 435 hectares in Sumedang, Pangandaran, and Tasikmalaya.
5. Bali: Planting and P0 maintenance were carried out over 75 hectares in Klungkung District, specifically in the Tabuna Watershed.

By the end of 2024, PT Vale had planted and maintained 6,829 hectares of watershed land. Since 2012, the company has rehabilitated a total of 17,264 hectares of watershed areas.

To support the success of this program, PT Vale and its stakeholders conducted field visits (Gemba) to several locations, including Marinding and Burasia Villages in Tana Toraja (South Sulawesi), and Tanglad Village in Klungkung (Bali). During these visits, stakeholders gave input on how to improve coordination, adjust technical plans based on site conditions, select suitable plant species, and involve local communities in the rehabilitation process.

To see the distribution of locations and areas of watershed rehabilitation, see the Data Table Chapter.

PT Vale Rehabilitates Watersheds in Tana Toraja

On January 15–16, 2024, PT Vale Indonesia Tbk (PT Vale) carried out the second phase of its watershed (DAS) rehabilitation program in Tana Toraja as part of its Forest Area Utilization Permit (IPPKH) obligations. In collaboration with the Research and Community Service Institute (LPPM) of Hasanuddin University, the rehabilitation covered 214 hectares across three blocks—Marinding, Airport Authority, and Burasia—by planting 424,000 tree seedlings. These included eucalyptus, tropical almond (ketapang kencana), white teak, and mango. Not only restoring the watershed's ecological function, the program also involved local communities in the planting and maintenance activities, providing them with additional income through non-timber forest products.

PT Vale and Local Government Plant 700 Tree Seedlings in Nuha

On April 24, 2024, PT Vale, in partnership with the local government, planted 700 tree seedlings in Alur Langolia, Nuha District, East Luwu, as part of post-mining land rehabilitation efforts. The initiative aims to restore degraded land, prevent erosion, and improve environmental quality. In the initial stage, 50 seedlings—such as guava, mango, and durian—were planted, with more to follow after a land condition assessment. The local government welcomed this initiative as a shared commitment to environmental conservation and encouraged community participation in nature preservation efforts.

Riparian Rehabilitation at Lamoare River

On July 23, 2024, PT Vale planted tree and fruit seedlings along the banks of the Lamoare River in Sorowako, in celebration of National Nature Conservation Day (HKAN) 2024. This activity was aimed at preventing erosion, protecting river ecosystems, and supporting water quality in Lake Matano. Fruit-bearing trees were chosen to offer both environmental and economic benefits to nearby communities. The initiative was supported by local authorities and underscored the importance of cross-sector collaboration in sustaining environmental conservation.

Post-Mining Planning[GRI 402-1] [GRI 14.8.2] [GRI 14.8.4]

PT Vale Indonesia (PTVI) has not yet entered the post-mining phase, however, as a commitment to mine closure and land rehabilitation, PT Vale updated its Post-Mining Plan (RPT) in 2022. This document encompasses the entire operational area in Sorowako and has been communicated to stakeholders, as well as approved through the Letter of Approval for the Revised Post-Mining Plan and Establishment of Post-Mining Guarantees for PT Vale Indonesia Tbk Sorowako Block, Number T-2204/MB.07/DJB.T/2023. [GRI 14.8.5]

The RPT includes various activities and recovery plans as part of the company's commitment to responsible and sustainable mining practices. To support the implementation of these plans, PTVI has also provided a mine closure guarantee through a financial provision of US$69,870,161, which is recorded in the company's financial statements. [GRI 14.8.8]

In addition to financial provisions, the Mine Closure Plan (RPT) also includes non-financial provisions, such as the management of employee layoffs in accordance with applicable labor regulations. PT Vale provides fair compensation and entrepreneurship training for affected employees. The layoff process is conducted in coordination with the government, early socialization, and the fulfillment of employee rights. The RPT also encompasses the development and empowerment of local communities through support for rural development initiatives, strategic partnerships in education and healthcare, as well as support for social, cultural, and religious activities. [GRI 14.8.9]

Meanwhile, for the Bahodopi and Pomalaa areas, the RPT document is still under development.

Estimated Mine Life (LOM)

[GRI 14.8.7]

As part of its long-term planning and operational sustainability, PT Vale Indonesia continues to manage mineral resources responsibly to ensure optimal and sustainable utilization. The estimated mine life is a crucial factor in operational strategy and investment planning, including the establishment of financial provisions for future mine closure.

Estimated Mine Lifespan

2045	Sorowako
2044	Bahodopi
2045	Pomalaa

Mineral Efficiency and Conservation in Nickel Processing

As a company in the mining sector, PT Vale Indonesia understands that using nickel ore efficiently is essential for both environmental sustainability and long-term business success. Making the most of natural resources not only improves the company's economic value but also helps reduce waste and emissions.

To achieve this, PT Vale applies various innovations in its mining and nickel processing operations. These efforts minimize the loss of valuable materials and increase nickel recovery rates. By doing so, the company can get the most out of its existing resources, reducing the need for new mining areas that may harm the environment.

As a holder of a Contract of Work (CoW), PT Vale is committed to mineral conservation practices in line with the Indonesian Ministry of Energy and Mineral Resources Regulation No. 1827K/30/MEM/2018. This includes optimizing resource use and minimizing waste.

In 2024, PT Vale reported a total of 14,668,236 wet metric tons (wmt) of mined ore, with an average grade of 1.75% nickel (Ni) and 0.07% cobalt (Co).[GRI 301-1] In the fourth quarter, the company achieved a 95% recovery rate in mining and a 90.63% recovery rate in processing and refining—indicating high efficiency in mineral management.

PT Vale also tracks and monitors by-product minerals like cobalt. In the fourth quarter of 2024, the company produced and sold 261 tons of cobalt in nickel matte. Additionally, it continues to manage lower-grade ore reserves by mapping their quantity, quality, and location to ensure efficient and responsible use of resources.

As part of the waste reduction and material reuse strategy, throughout 2024, PT Vale has utilized 3,905,235 wmt of slag and 1,158,003 wmt of dryer reject. This material is used for road paving, surface mining areas, and mining infrastructure development, in line with material circularity initiatives in mining operations. [GRI 301-2][GRI 301-3]

Optimization of Processing with Oversize Product Crusher

PT Vale Indonesia has implemented the Oversize Product Crusher innovation in its granulation system to improve nickel processing recovery. This technology enables the reutilization of oversize reject products, which, in the past, had to be sent back to the smelting furnace, increasing the risk of higher processing costs and nickel loss into the slag. With the installation of a reject crusher, oversized products can be crushed and directly blended with nickel products that meet customer specifications.

Human Capital Excellence for Sustainable Growth

VALE

The Approach of PT Vale in Managing Material Issues Related to Human Capital

At PT Vale, we believe that employees are the foundation and strategic assets integral to the company's success and sustainable development. In line with this belief, we prioritize the well-being, skill development, and protection of employee rights. This commitment is reflected in our efforts to build a workforce that is productive, diverse,inclusive, and motivated, aimed at delivering long-term value to all stakeholders. As such, employee well-being and the protection of their rights are top priorities, in line with our commitment to building a productive, diverse, inclusive, and motivated workforce.

Our approach to managing human capital is embedded in our sustainability policies, which include anti-discrimination, diversity and inclusion, freedom of association, and health and safety at work. These policies are implemented to all employees, partners, and contractors, and are designed to create a fair, safe, and supportive work environment that supports individual development.

We adopt management systems that align with both national and international standards, including ISO 45001 and the Mining Safety Management System (SMKP), and adhere to the core principles of International Labour Organization (ILO) Conventions. The effectiveness of our human capital strategy is reviewed regularly through internal audits, employee satisfaction surveys, and dialogues with labor unions.

Key risks in managing human capital include workplace accidents, labor rights violations, unequal employment opportunities, and declining employee morale and engagement. To anticipate and mitigate these risks, we conduct safety training, reinforce an inclusive work culture, and provide a responsive grievance reporting system with follow-up mechanisms.

All of these efforts support our long-term goal of creating a resilient, adaptive, and sustainable work environment. We also establish measurable targets and performance indicators to ensure effective management of material issues related to human capital.

Topic Material	**Occupational Health and Safety** **Industrial Relations and Labor Rights**
Related Sustainability Topics	**Development ofHuman Capital Resources** **Industrial Relations and Labor Rights** **Occupational Health and Safety**
Key Initiatives in 2024	**Employee Training and Development**
Achievements	**65,687** total hours **22 training hours** per employee **88 employees and contractors** attended First Operational Supervisor (POP) **28 employees and contractors** attended Intermediate Operational Supervisor (POM)

Employee Statistics[GRI 2-7][GRI 405-1][POJK51-C.3][SASB EM-MM-000.B]

As of the end of 2024, PT Vale employed a total of 3,038 people, an increase of 21 employees compared to 2023. Of this number, 83%, or 2,516 employees, are local hires originating from areas surrounding the company's operations. PT Vale defines local employees as individuals who reside in the same regency as the company's operational sites. A total of 335 local employees held managerial positions, which is equivalent to 13.1% of the total local workforce, or 45.33% of all managerial roles within the company. PT Vale remains committed to actively promote the role of local employees as part of its sustainable development strategy and contribution to the local economic growth.[GRI 202-2]

In 2024, PT Vale's workforce was composed of 2,686 male employees (88.4%) and 352 female employees (11.6%). While the mining industry in which PT Vale operates is traditionally male-dominated, the company remains committed to fostering diversity, recognizing it as a vital driver of innovation and sustainable performance.

In accordance with the Human Rights principles in the ICMM Sustainable Development Framework, PT Vale is committed to establishing inclusivity and equity in the workplace. The company upholds policies that respect and protect the rights and interests of women in the workplace. At the same time, encouraging women to continue to grow and contribute across all levels of the organization.

In 2024

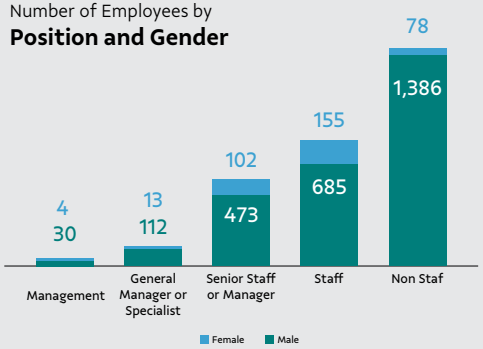
Male 88%

Female 12%

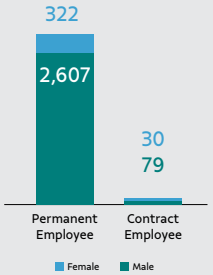
Local Employees 83%

Employees with Disabilities 2%

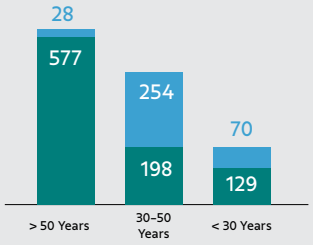
Number of Employees by **Position and Gender**



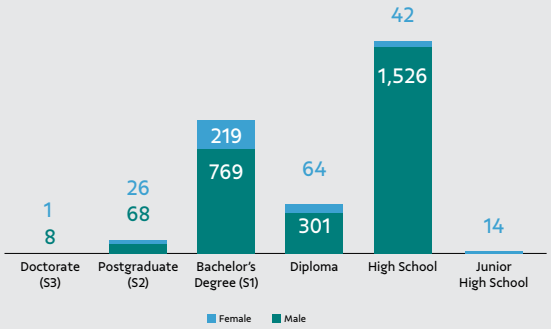
Number of Employees by **Employment Status**



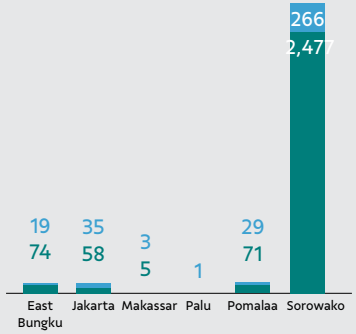
Number of Employees by **Age**



Number of Employees by **Education Level**



Number of Employees by **Placement Area and Gender**



Protection and Fulfillment of Worker Rights

PT Vale views the protection and fulfillment of worker rights as an integral part of its commitment to human rights principles and sustainable development. In alignment with its Sustainability Policy, the company upholds values of justice, non-discrimination, safety, as well as the freedom of association and expression.

This policy applies not only to internal employees and extends further to include indirect workers within the company's operational supply chain. By referring to national and international standards such as the ILO Conventions, UN Guiding Principles on Business and Human Rights, and ICMM principles, PT Vale is dedicated to creating a decent, safe, and inclusive working environment for all its workforce, while fostering harmonious and productive industrial relations.

Support for Labor Unions and Collective Labor Agreements

As a tangible expression of its commitment to the protection of worker rights, PT Vale consistently supports the freedom to associate and the right to collective bargaining. The company guarantees that all employees have equal access and opportunities to form, join, and participate in labor unions, free from discrimination or pressure.

The industrial relations at PT Vale are based on principles of openness and mutual respect between management and worker representatives. Social dialogue is organized regularly through formal mechanisms such as negotiations for Collective Labor Agreements (CLA), bipartite communication forums, and employee feedback sessions. These efforts aim to maintain harmonious working relationships, improve employee welfare, and create a fair and sustainable work environment.

Trade unions play an important role in promoting and implementing policies regarding occupational safety and health, as well as the overall welfare of employees. As a demonstration of our commitment, PT Vale regularly communicates with trade unions to evaluate and update the CLA, with the aim of protecting employee rights and ensuring their welfare. We also establish joint committees between management and trade unions to discuss issues related to the company's operations.

The CLA in effect at PT Vale protects all permanent employees, while foreign workers (expatriates) are subject to the terms of their respective employment contracts in accordance with applicable regulations. Communication between management and trade unions occurs routinely, including during the evaluation and update processes of the CLA, which are held every two years.

The existing CLA at PT Vale applies to all permanent employees, while foreign workers are subject to the terms of their respective employment contracts in accordance with prevailing regulations. Communication between management and labor unions occurs routinely, including during the biennial review and renewal of the CLA.

The CLA also includes provisions regarding the company's obligation to inform employees of any operational changes that impact employment relationships, in line with PT Vale's commitment to uphold human rights principles. As part of this approach, PT Vale fully supports employees' rights to associate and gather regularly as a platform to voice aspirations and strengthen constructive industrial relations.[GRI 2-30][GRI 407-1][GRI 402-1][SASB EM-MM-310a.1]

Realizing Shared Prosperity Through Collaboration between PTVI, the Government and Labor Union

The negotiation process for this Collective Labor Agreement (PKB) began on November 18, 2024, at Taman Antar Bangsa (TAB) in Sorowalo, East Luwu.

Employee welfare is a top priority for PT Vale Indonesia Tbk (PTVI). The company believes that sustainability is not only determined by operational performance but also by harmonious and fair industrial relations. To reinforce this commitment, PTVI regularly holds Collective Labor Agreement (CLA) negotiations every two years to fulfill employee rights, as mandated by Law No. 13 of 2003 on Manpower.

In 2024, the 21st CLA negotiation process began on November 18 at Taman Antar Bangsa (TAB) in Sorowako, East Luwu Regency. The negotiations involve collaboration between company management, the local government, and three verified major labor unions: the Chemical, Energy, Mining, Oil, Gas, and General Workers Union (SPKEP), the United Workers Union of Vale Indonesia (SPBVI), and the Mining and Energy Federation – Confederation of All Indonesian Workers' Unions (FPE-KSBSI).

The results of the negotiations, as outlined in the CLA, apply not only to employees in the Sorowako operational area but also to all regions where PT Vale operates, including Jakarta, Makassar, Bahodopi, and Polamaa. This step is taken to align the collective labor agreement with national policy developments, including the implementation of the Omnibus Law on Job Creation and the increase in the Value Added Tax (VAT) rate.

PTVI promotes a collaborative approach to these negotiations to reach a fair and balanced agreement for all parties. The negotiations are also aimed at strengthening industrial relations, maintaining operational continuity, and improving employee welfare in the face of policy changes and evolving industry challenges.

The participation of labor unions in this process is a reflection of the company's commitment to upholding workers' rights and ensuring their involvement in decision-making that directly affects working conditions. Support from local government agencies, including the South Sulawesi Province's Manpower and Transmigration Office and East Luwu Regency, further strengthens the legitimacy and inclusivity of the negotiations.

Through this process, we reaffirm our commitment to not only focusing on productivity and efficiency but also on building fair and sustainable labor relations to create shared welfare for the company, workers, and the community

"PT Vale has demonstrated its commitment to the freedom of association as outlined in the Collective Labor Agreement (PKB). The relationship between the union and management has been fairly good, especially through open informal communication. Looking ahead, we believe it's essential to strengthen the role of the Bipartite Forum (LKS-Bipartit), so that dialogue can take place in a more structured and consistent manner.

We value the openness of management, particularly at the board level, however two-way communication still needs to be strengthened throughout all levels of the organization. We hope that in the future, all policies related to employee welfare can continue to be discussed collaboratively with the union, with a consistent strengthening of the LKS Bipartite role and an increase in continuous open dialogue, in order to realize an industrial relationship. This will help us build healthier, more harmonious, inclusive, and constructive industrial relations"

–
Baso Murdin
Chairman of the SP-KEP Union

Prevention of Forced Labor and Child Labor

[POJK51-F.19] [GRI 408-1] [GRI 409-1] [MM4] [EM-MM-310a.1]

As a company committed to responsible business practices, PT Vale Indonesia strictly prohibits all forms of child labor and forced labor in all its operations. This commitment is not only applied to direct employees but is also extended to all business partners, including contractors and suppliers.

In conducting its operations, the company adheres to Indonesian laws and regulations, particularly Labor Law No. 13 of 2003 and the international standards set by the International Labour Organization (ILO). As part of this implementation, PT Vale enforces a strict minimum working age of 18 for all workers, without exception. This policy is strictly applied in the recruitment process, including through ID verification, documents and regular field monitoring.

Throughout 2024, internal monitoring results showed no findings of child labor or indicators of forced labor within PT Vale's work environment. This highlights the effectiveness of the monitoring system that has been established, including the complaint mechanisms accessible to all workers. Additionally, the company strictly follows rules about working hours, including the provision of appropriate compensation for any overtime performed by employees.

To strengthen this commitment, PT Vale proactively implemented various preventive measures. Management and contractors receive regular training on the importance of preventing child labor. Specific clauses prohibiting forced labor practices are also included in all employment agreements with business partners. Collaboration with local government and related organizations continues to be fostered to ensure proper oversight.

Even though no violations were found during the reporting period, PT Vale recognizes that the risks of child labor and forced labor must still be monitored, particularly within the wider supply chain. Therefore, the company continues to improve its due diligence system in the recruitment process and build a more protective whistleblowing mechanism. Efforts to promote awareness of workers' rights have also been expanded to the communities surrounding the mines, as part of a long-term commitment to creating a fair and dignified work environment.

PT Vale's commitment to child labor and forced labor prevention aligns with global efforts to achieve the Sustainable Development Goals (SDGs), particularly Target 8.7, which calls for the elimination of all forms of forced labor and child labor. Through these practices, the company actively contributes to creating a better working world while strengthening the foundation of a sustainable and responsible business.

Commitment to Diversity, Equity and Inclusion[POJK51-F.18]

At PT Vale, we believe that diversity, equity, and inclusion (DEI) are key to building a positive, productive, and creative workplace. We're committed to making sure all employees feel valued, respected, and empowered, regardless of their background, gender, age, or experience.

To us, DEI is not just a principle, but also a pillar of our company culture. This culture fosters a supportive environment where every individual can grow, work together, and contribute their best. PT Vale also has a Diversity and Inclusion Charter that encompasses five main commitments to promoting DEI.

Diversity and Inclusion Charter

1. Create an environment that respects the uniqueness of each individual, where everyone has equal opportunity to develop their potential.
2. Build a safe and healthy environment where individuals are free to share ideas, share opinions, and be themselves.
3. Implement a transparent, fair, and bias-free process in recruitment, evaluation, and in creating a diverse workplace.
4. Zero tolerance for all forms of harassment, discrimination, or prejudice.
5. Foster open dialogue and raise awareness about the importance of diversity.

Although the composition of the local workforce at PT Vale has reached 83%, we still face challenges regarding equality and efforts to attract the younger generation to the mining sector. As such, PT Vale always involves all stakeholders. Local governments have appreciated these efforts as a step toward more harmonious and sustainable relationships.

We provide equal opportunities for every individual to work and build a career at PT Vale, —no matter their gender, ethnicity, religion, background, political views, or whether they have a disability. Our recruitment process is free from any form of discrimination. During the year 2024, we did not receive any complaints regarding workplace discrimination. [GRI 406-1]

Initiatives Related to Diversity, Equity, and Inclusion

To create an inclusive and diverse culture, we have launched various initiatives, such as mentorship programs, unconscious bias training, and inclusive recruitment. We do this to build an environment that values differences, with fair recruitment policies and open communication where every voice is heard. We provide equal opportunities for every individual to grow, innovate, and contribute their best.

In order to increase women's involvement in the extractive sector, PT Vale targets to achieve a proportion of women in the company of 18% by 2030. As of December 31, 2024, the number of female employees was recorded at 352 people (11.6% of total employees), an increase from 2023 which was 307 people (10.2%). Of the total female employees, 17 people hold managerial positions.[GRI 405-1]

As part of its commitment, PT Vale also provides opportunities for persons with disabilities who meet the qualifications for available positions. In 2024, there were 70 employees with disabilities, making up 2% of the total workforce. They work as non-staff and senior staff.[GRI 405-1]

Support for Female Employees

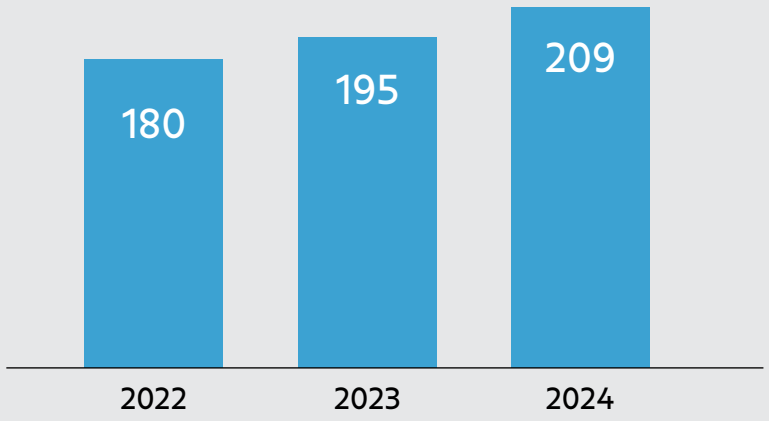
PT Vale is committed to creating an inclusive workplace where women are supported, both as professionals and as mothers. We uphold the rights of female employees so they can work optimally without disregarding their roles and nature as women. This commitment is reflected in part through the provision of inclusive facilities and a supportive workplace.

To support work-life balance, we provide maternity leave of 120 calendar days of maternity leave for women, and we guarantee they can return to work in the same position following their leave. Meanwhile, male employees are entitled to paternity leave to accompany their wives during childbirth, 2 calendar days for those working on-site and 3 calendar days for those working off-site.

100% of female employees who took maternity leave have returned to work in their same positions, demonstrating our commitment to equality and the empowerment of women in the workplace.[GRI 401-2][GRI 401-3]

PT Vale also ensures that pregnant female employees work in a safe and supportive environment for their pregnancy conditions. As part of this policy, pregnant employees are not assigned to factory or field areas in order to avoid potential health and safety risks. Task adjustments are made by placing employees in a desk-type environment enabling them to continue to contribute productively during their pregnancy.
Support for women is also reflected in the provision of lactation rooms at our workplaces in the Jakarta and the Sorowako office. These facilities aim to provide comfort for breastfeeding mothers in the workplace and they represent PT Vale's commitment to creating a family-friendly workplace that supports women's dual roles.

Number of Employees
Entitled to Maternity Leave



100%

The rate of employees returning to work after taking maternity leave

100%

The rate of employees returning to work and being retained after taking maternity leave

Employee Training and Development[POJK51-F.22][GRI 404-1][GRI 404-2]

PT Vale believes that employee development is essential for building sustainable organizational excellence. Therefore, the company consistently organizes various training programs to ensure that each individual has the right skills and knowledge to keep up with changes in the industry.The development programs focus on enhancing leadership capacities, improving technical skills, as well as understanding sustainability practices and workplace safety standards. With this approach, PT Vale supports every employee to achieve their best potential and make maximum contributions to the company's growth.

In 2024, PT Vale delivered 65,687 hours of training, on average, each employee received around 22 hours. This reflects the company's commitment to providing opportunities for employees to grow their skills and reach their full potential. Some of the training programs we organized include professional certifications, occupational health and safety training, operational supervision certifications, and other technical training relevant to industry developments.

Some of the certifications such as Renewal Remote Pilot Certification, Mine Surveyor Certification, Intermediate Operational Supervisor (POM), and management-related training such as Certified Maintenance and Reliability Professional (CMRP) and Certified Supply Chain Professional (CSCP). We also offer specialized training in safety, sustainability, and natural resource management. Thus, it helps our employees not only be prepared to face the challenges of their professions but are also capable of becoming leaders in their fields.

We also conduct pre-retirement training for employees approaching retirement, to help them prepare for life after retirement, whether for entrepreneurship or new careers in other sectors. During the reporting period, 74 employees participated in this specialized training, with topics including: [GRI 404-1] [GRI 404-2]

1. Retirement planning and preparation
2. Business visits and sharing entrepreneurial inspiration
3. Retirement health management
4. Financial and investment planning

PT Vale provides wide opportunities for every employee to develop their careers with decisions based on performance evaluations. This policy applies to everyone, 100% of the workforce. For non-staff employees, it is possible to reach the highest level within their career path, if they meet the required competency standards and qualifications. In 2024, 370 employees received job promotions, comprising 324 male (88%) and 46 female (12%).[GRI 404-3]

Local Workforce Training

In August 2024, PT Vale IGP Pomalaa, in teamed up with the Kolaka Regional Government, held training sessions in heavy equipment operation, electrical work, and welding. This program aims to develop and prepare local human resources, providing equal opportunities, especially for women.

Yuyun said that women should not feel any less capable compared to men, and she was very enthusiastic throughout the training. Ranita saw that this training is an opportunity for her to grow her skills in heavy machinery technical work.
For PT Vale, this training is a long-term investment that benefits both the company and the community, while also providing equal opportunities for both men and women.

This training program continues to create opportunities for local talent, particularly women, to succeed and contribute to human capital development in Kolaka Regency.

Employee Remuneration and Benefits [GRI 401-2]

Every employee at PT Vale is entitled to compensation and benefits. The company regularly reviews the salary structure to ensure the compensation offered is competitive and reflects employee performance. In addition to the base salary, employees also receive other benefits such as additional incentives.

Employees on a shift-based work schedule are entitled to premium payments based on their work hours, and those working on Sundays receive a special work premium. The compensation provided by PT Vale exceeds compliance with applicable regulations and laws, but also exceeds compliance standards (beyond compliance) to ensure employee welfare. As part of the company's commitment we also ensure that employees' leave entitlements are in line with the provisions in the Collective Labor Agreement (PKB).

In accordance with the applicable Collective Labor Agreement (PKB), the company offers a performance-based incentive scheme, the Annual Incentive Program (AIP), which considers the performance of PT Vale Indonesia, Tbk., as well as performance of team and individuals. The amount is based on overall company performance, PT Vale's performance, team contributions, and individual contributions.

EMPLOYEE COMPENSATION AND BENEFIT	PERMANENT EMPLOYEE	TEMPORARY EMPLOYEE
Basic Salary	✓	✓
Religious Holiday Allowance	✓	✓
Transportation Allowance*	✓	✓
Leave Allowance*	✓	✓
Overtime Allowance*	✓	✓
Marriage Allowance	✓	✓
Health Facilities*	✓	✓
BPJS Health Program	✓	✓
BPJS Employment program	✓	✓
Bereavement Money	✓	✓
Long Service Pay*	✓	✗
Vehicle Ownership Program	✗	✗
Annual Bonus	✓	✓
Meals Facilities	✓	✓
Annual Incentive Program	✓	✗
Employee Children Education Assistance	✓	✗
Additional Leave	✓	✗
25 Years Service Allowance	✓	✗

Comparison of Lowest Remuneration to Minimum Wage

As part of our commitment to employee welfare, we have set remuneration levels that ensure equality between male and female employees for the same positions, with a 1:1 ratio. Total remuneration includes allowances, bonuses, placement incentives, and housing facilities at operational locations such as Sorowako, Bahodopi, and Pomalaa. In general, the lowest remuneration at PT Vale in 2024 is 15.2% higher than the applicable minimum wage in Luwu Timur Regency.[POJK51-F.20] [GRI 202-1] [GRI 405-2]

Employee Pension Fund

PT Vale is strongly committed to the long-term welfare of its employees, one of which is through the provision of a sustainable pension program in accordance with applicable regulations. The company requires all employees with more than three years of service to participate in the Defined Contribution Pension Program (PPIP) managed by a Financial Institution Pension Fund (DPLK), as well as the Old Age Security (JHT) and Pension Security (JP) programs administered by BPJS Employment.

Under the PPIP scheme, pension fund contributions consist of 10% from the company and 2% from the employee. In 2024, the managed pension fund amounted to US$53,068,476, an increase of 0.3% compared to the previous year's US$52,892,019.

In addition to the DPLK program, the company also provides a "Saving Plan" program managed by a third party. This program offers benefits in the form of a cash value and life insurance payout if the participant passes away during the insurance coverage period. Under this scheme, the company covers a 10% contribution from the base salary, consisting of 9.3% for the saving plan and up to 0.7% for life insurance premiums. [GRI 201-3]

Recruitment and Workforce Turnover

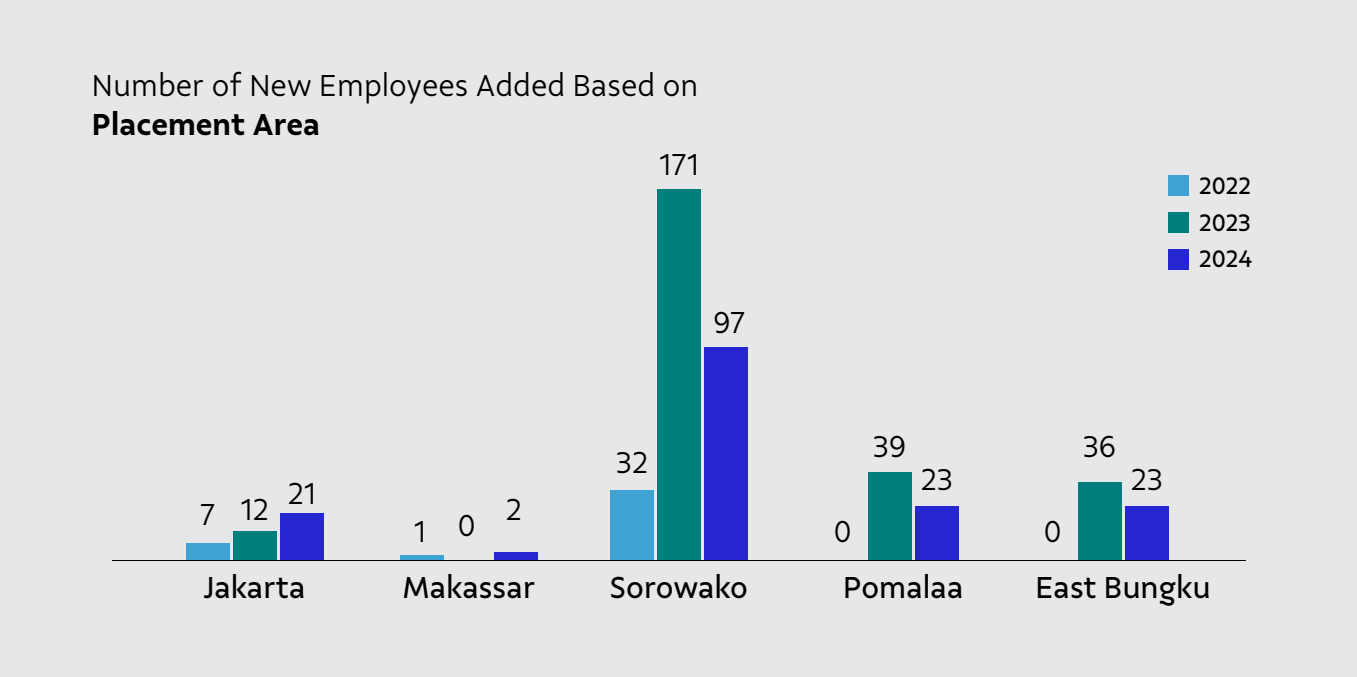
Equitable and Inclusive Recruitment System

PT Vale's recruitment system ensures equal opportunities for all, with a focus on recruiting diverse talent that reflects the communities we work in. We prioritize transparent hiring processes, actively recruit local labor, and collaborate with schools and vocational programs to create job opportunities and develop a pipeline of skilled workers.

Vale Indonesia prioritizes the development of local talent by partnering with educational institutions to improve recruitment and retention. Our recruitment strategy prioritizes candidates from local districts, followed by candidates from South Sulawesi, and if needed, extends to talent from across Indonesia. This approach supports both local workforce empowerment and smooth company operations. In 2024, PT Vale welcomed 166 new employees, consisting of 116 men (69.8%) and 50 women (30.2%).[GRI 401-1]

Employee Turnover Rate

Improving employee welfare remains our top priority, and we regularly monitor turnover rates to assess the effectiveness of various initiatives implemented, and to recognize opportunities for improvement. In 2024, the employee turnover rate reached 0.92%, with 28 employees deciding to leave the company. We offer various benefits and facilities, considering employment status and placement location, as part of our efforts to retain quality employees.



Employee Concern Resolution Process

We maintain an open-door policy that encourages employees to express their concerns or complaints through a confidential reporting channel. With this system, we ensure that every issue is addressed fairly and promptly, as part of our commitment to creating a transparent and supportive work environment. We define complaints as follows:

- Complaint: A complaint is a formal concern raised by an employee when the employer is believed to have violated the provisions or terms agreed upon in the Collective Labor Agreement (CLA).
- Grievance: is a concern raised by an employee regarding workplace conditions, treatment, or the working environment, even if there is no violation of the contents or terms of employment in the CLA.

Direct supervisors are responsible for resolving complaints in accordance with the Collective Labor Agreement (CLA). Issues will be addressed in a timely manner, within a specified timeframe to support a positive and productive work environment.

Mechanism for Submitting and Resolving Employee Complaints

The resolution process follows several stages that prioritize dialogue and internal resolution. If an employee is not satisfied with the policies or actions of their supervisor/employer, they can submit a complaint through the provided channels.

This system is designed to ensure that every complaint is handled fairly, transparently, and with respect for the rights of employees. Employees have the right to submit a complaint or grievance in writing using the Form-8 Complaint Form to their direct supervisor.

The complaint resolution process can follow these stages:

1. Initial Stage
   Employees can submit a written complaint to their direct supervisor. A response will be given within a specific period. If there is no response or resolution, the employee can move on to the next stage.
2. Escalating to a Higher Supervisor
   If the issue is not resolved, employees can escalate the complaint to a higher level of management. A meeting will be arranged to work out a solution between the employee and management.
3. Review of the Decision
   If the outcome is still not satisfactory, the employee has the right to request a review of the decision according to company policies and the Collective Labor Agreement (CLA). This review process is overseen by the People & Culture – Industrial Relations (P&C-IR) team and can involve the Labor Union as well.
4. Bipartite Resolution
   If all internal stages fail to reach an agreement, the issue will be resolved through the Bipartite mechanism as outlined by applicable laws. The employee may be accompanied by the Labor Union during this process.

Employee Strikes

[SASB EM-MM-310a.2][GRI 14.20.3]

There were no incidents of strikes or work stoppages by employees throughout the year 2024. The company promotes harmonious and transparent industrial relations by nurturing constructive dialogue between management and employees. Every employment issue is resolved peacefully through the communication mechanisms that have been mutually agreed upon.

Commitment to Employee Health and Safety[POJK51-F.21]

PT Vale is committed to continuously improving occupational health and safety performance sustainably, with the ultimate goal of zero harm, in line with the Principles of Sustainable Mining Management based on the ICMM Sustainable Development Framework.

To support this commitment, PT Vale applies the Mineral and Coal Mining Safety Management System (SMKP Minerba) in line with the Ministry of Energy and Mineral Resources Decree No. 1827/K/30/MEM/2018 regarding the Guidelines for Good Mining Engineering Practices. We also develop a safety management system based on ISO 45001, require Safe Work Permits (SWP) for all work activities, and implement the Contractor Safety Management System (CSMS) to manage the safety and health of our contractors and business partners.

In 2024, PT Vale is currently in the process of obtaining ISO 45001 certification for its occupational safety management system. Additionally, we implement industrial hygiene practices that control exposure to dust, noise, and ergonomics, with all aspects monitored via Key Performance Indicators (KPIs) and reviewed regularly.

The implementation of Occupational Health and Safety (OHS) principles covers 100% of employees, including contractor/vendor workers, without exception. This policy also applies to all stakeholders who engage in activities or visit PT Vale's work sites.[GRI 403-1][GRI 403-8]

All operational sites have implemented preparedness and emergency response programs as part of the Occupational Health and Safety Management System. These initiatives are reinforced through regular training sessions provided to both employees and contractors. Throughout the 2024 reporting period,Throughout the year 2024, there were no critical incidents across all operational areas of PT Vale. [GRI 14.15.3][GRI 14.15.4]

On a monthly basis, the company holds meetings with all project partners who conduct independent project oversight to assess safety performance and share improvement initiatives.

At PT Vale, we believe that the company's success is driven by the contributions of each employee. Therefore, we create a safe, inclusive work environment that prioritizes health and safety. We apply strict safety standards and regularly update protocols to ensure employees can work without worry. Our initiatives include routine safety drills, comprehensive health programs, advanced monitoring systems, and the knowledge necessary to work safely and effectively.

We closely monitor performance to ensure compliance with industry standards and promote continuous improvement across all operational areas. In 2024, the number of moderate-to-severe accidents decreased to 2 incidents, down from 3 incidents in 2023. Meanwhile, minor accidents were recorded at 18 incidents, after having none the previous year.

Although there was a decline in more serious accidents, the increase in minor accidents indicates that there are still areas requiring improvement. To address this, we continue to strengthen our safety management system through regular updates to safety protocols and ongoing training for the entire team. Through these efforts, we hope to create a safer work environment and achieve the goal of zero accidents and zero incidents. We also remain committed to improving and reinforcing the occupational safety management system.

A significant step in this process is the initiation of ISO 45001 certification, which began in late 2024. This involves working with consultants to conduct a Gap Analysis and aligning with the Mining Safety Management System. In early 2025, this process will be followed by ISO 45001 training and socialization for potential auditors and relevant stakeholders.[GRI 403-1] [GRI 403-8]

Hazard Identification and OHS Training (Occupational Health and Safety) [GRI 403-2] [GRI 202-2]

In 2024, we recorded the best achievement in the company's history in terms of occupational safety, including the success of implementing the Mining Safety Performance Achievement Level Assessment in accordance with the Decree of the Director General of Mineral and Coal No. 10 of 2023. This achievement is reflected in the increasing fulfillment of competency standards by our team, such as the certification of the First Operational Supervisor (POP) from the Director General of Mineral and Coal, Ministry of Energy and Mineral Resources, as well as the implementation of Hazard Identification & Risk Assessment (HIRA) training which is carried out routinely every two years.

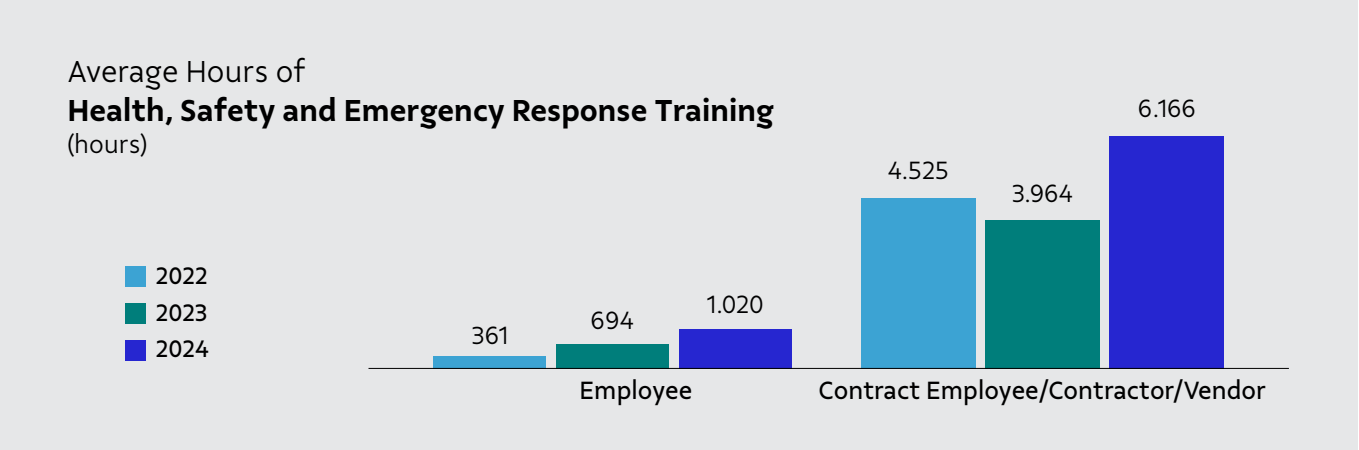
As part of our commitment to continuous improvement, we implement structured and systematic safety measures. Hazard identification and risk assessment are carried out periodically through the Contractor Safety Management System (CSMS) every month. In addition, we hold induction training which is updated every two years, as well as conducting Risk Assessment and Job Safety Analysis (JSA) before work begins or if there is a change in working conditions. Safety talks are also held before each job begins, and we routinely conduct monthly audits of high-risk activities and daily inspections of heavy equipment before operation.

To ensure complete hazard control, the safety standards we adopt are translated into Bahasa Indonesia, including bilingual warning signs. Workers can report hazards via the CRM app, while incidents or accidents are reported using the IRIS app. All incidents in 2024 were investigated to find the root cause and implement corrective actions, including 20 potential fatality accident (HIPO) cases.

We have also improved the hazard reporting system by establishing targets for corrective actions on each finding and assessing the quality of incoming hazard reports. Occupational health and safety information is regularly disseminated through Intranet, WA Broadcast, billboards, and Safety Share, which are accessible to all work areas.The Mining Safety Committee plays a key role in establishing Safety Goals and Programs (TSP) and ensuring that safety policies and procedures are effectively implemented. We held meetings monthly followed by special sessions to discuss policies and determine key performance indicators (KPIs).[GRI 403-4]
OHS conducted by certified trainers with competency in their fields and licenses from the National Professional Certification Agency (BNSP) is crucial in ensuring that every worker has adequate knowledge and competence. Evaluation is conducted through exams to assess participants' understanding of the material presented.

There were 2 main training activities in 2024:

1. First Operational Supervisor (POP), attended by 88 employees and contractors.
2. Intermediate Operational Supervisor (POM), attended by 28 employees and contractors.



Occupational Health [GRI 403-3]

In 2024, our primary focus in occupational health is to change employees' mindset and behavior regarding the importance of a healthy lifestyle through the "Wellness Program." The program focuses on five essential pillars: maintaining a healthy and balanced diet, getting 7 to 8 hours of sleep daily, managing stress effectively, engaging in regular physical exercise, and fostering a clean social and environmental community. With this approach, we hope to help employees become healthier and more productive.

Operational Risks Management

PT Vale pays attention to safety and health risks associated with work in nickel mining and production operations. Some types of work in nickel mining and production operations pose high risks to occupational safety and health, such as manual handling of materials, working with mining equipment, working near hazardous gases, or working in extremely noisy areas. Some jobs in nickel mining and production operations are particularly hazardous. We have implemented measures to mitigate these potential dangers. In addition to applying operational safety standards, PT Vale also complies with applicable government regulations.[GRI 403-7]

Employee Health Program — Wellness Program Batch II IGP Morowali

PT Vale Indonesia Tbk, through the Indonesia Growth Project (IGP) Morowali, has relaunched the Wellness Program Batch II as an effort to encourage employees and contractors to adopt a sustainable healthy lifestyle. It's not limited to weight loss; the program also promotes sustainable lifestyle changesbut also on building healthy habits that include balanced nutrition, regular exercise, stress management, and adequate rest.

Through this program, participants gain an understanding of the importance of maintaining physical and mental balance as part of improving quality of life and preventing disease. Experiences from Batch I participants showed that consistency in maintaining a healthy lifestyle not only results in physical changes but also helps reduce the risk of health issues such as high cholesterol and other metabolic disorders.

The Wellness Program is expected to become an integral part of the healthy living culture within PT Vale's work environment and continue to encourage active participation from all employees and partners at every operational site.

Employee Health and Wellness Program — Wellness Talkshow Pomalaa

As part of the company's commitment to supporting employee welfare, PT Vale Indonesia Tbk through the Indonesia Growth Project (IGP) Pomalaa held a Wellness Program talk show with the theme "Our Energy Balance & Wellness Tips During Fasting". This activity was attended by Wellness Program participants in a hybrid manner and presented Coach Hendri Pardede as a resource person.

This program encourages employees to implement a healthy and balanced lifestyle, not only through proper diet management, but also with regular physical activity as part of long-term health management. In this session, participants gain an understanding of the importance of energy balance, optimal food consumption techniques, and nutritional guidelines during fasting. In addition, employees are also provided with practical tips on healthy eating patterns during sahur and breaking fast, as well as recommendations for maintaining fitness through light exercise during the month of Ramadan.

Type of Work	Risks Faced by Employees and Workers	Whether the Work-related Hazard caused any illnesses during the reporting period (2024)	Actions taken to eliminate hazards and minimize risks using the hierarchy of controls[GRI 403-9][GRI 403-10][GRI 403-3]
Operating heavy equipment	Serious injuries/ fatalities	No	• Developing CAR/MHS-03 standards. • Training and audit of vehicle operations.
Working at heights.	Serious injuries/ fatalities	No	• Implementation of CAR/MHS-09 standards. • Training and audit of hazards associated with working at heights.
Blasting	Serious injuries/ fatalities	No	• Implementation of CAR/MHS-09 standards. • Blaster certification. • Audit related to blasting work.
Working near hazardous gases.	Gas poisoning	No	• Conducting industrial hygiene risk assessments. • Monitoring both in-person and online. • Preparing safe work procedures. • Use of personal protective equipment (PPE).
Working at heat-exposed area	Heat stress	Tidak	• Conducting industrial hygiene risk assessments. • Monitoring both in-person and online. • Preparing safe work procedures. • Use of personal protective equipment (PPE).
Working in a loud environment	Hearing impairments	No	• Conducting industrial hygiene risk assessments. • Monitoring both in-person and online. • Preparing safe work procedures. • Use of personal protective equipment (PPE).
Other types of work identified from the project job demand analysis: • Working with mining equipment; • Handling materials manually	Musculoskeletal disorders (lower back pain, hernia, nucleus pulposus, and others)	No	• Implementing engineering controls for mining equipment that poses high ergonomic hazards. • Administrative controls by raising awareness among mining operators working with equipment that poses high ergonomic risks. • Administrative controls for all types of work involving manual material handling.

PT Vale provides medical protection to its employees by registering them in the BPJS Health Social Security program. As participants, employees are entitled to healthcare services for non-occupational diseases at primary healthcare facilities and referral hospitals. We also offer periodic health check-ups (Medical Check-Up/MCU) for employees and workers. In 2024, 3,099 employees and 15,303 contract workers underwent MCU. This is a proactive measure to ensure the well-being of the workforce.[GRI 403-6]

We also manage health conditions that may pose risks. Since 2008, we have been working with the East Luwu Health Department on a voluntary HIV/AIDS workplace program. We also address other illnesses such as Tuberculosis and Dengue Fever. These actions help protect workers from diseases that could disrupt their performance and safety at work.[GRI 403-6]

IGP Morowali Promotes Safe Work Through HIV/AIDS Education

In commemoration of World AIDS Day on December 1, PT Vale Indonesia Tbk (PTVI), through the Indonesia Growth Project (IGP) Morowali, organized HIV/AIDS prevention awareness program for employees and contractors at the Si'e Canteen, Port Bahomotefe, Morowali, on December 2, 2024. The event aimed to increase understanding and reduce the stigma surrounding HIV/AIDS, the event attended by around 70 participants.

Asri Djaya, Manager of Health, Safety & Operational Risk (HSOR) at IGP Morowali, underscored that providing education is a fundamental aspect of the company's commitment to safeguarding employee health.

The speaker, Dr. Arnis Fanasari Umar from the Morowali Regional Hospital, explained HIV, including its transmission pathways and preventive measures, "HIV is not the end of everything. With early detection and proper treatment, individuals can live healthy and productive lives," she told the participants.

A representative from the Health Office, Nursiah Musa, also presented a program for early HIV/AIDS detection to facilitate access to healthcare services, particularly in the workplace. This session included an interactive discussion, where participants actively asked questions about prevention and protection measures against HIV. PTVI IGP Morowali is committed to continually conducting health programs to create a healthy, inclusive, and stigma-free work environment regarding HIV/AIDS.

Health and Safety Performance

PT Vale conducts annual occupational health and safety (OHS) compliance audits based on the SMKP Minerba and IMS-EHS standards, carried out by certified internal auditors. The 2024 internal audit for SMKP Minerba reported a compliance rate of 76.73%, an improvement from 73.56% the previous year.

To monitor safety performance, PT Vale regularly tracks indicators such as the Frequency Rate (FR) and Severity Rate (SR) per 1,000,000 working hours. In 2024, the FR was recorded at 0.30 in Sorowako, 0.27 in Bahodopi, and 0 in Pomalaa. Regarding severity, Sorowako reported 400 lost workdays due to workplace accidents, while Bahodopi and Pomalaa reported none.

The company's Total Recordable Injury Frequency Rate (TRIFR) remained below the average reported by the International Council on Mining and Metals (ICMM). No Fatal Injury Frequency Rate (FIFR) cases were recorded during the reporting period.
In terms of high-consequence incidents (excluding fatalities), there were 17 cases reported in Sorowako, 2 in Bahodopi, and 1 in Pomalaa. These incidents are used as key references for evaluating and reinforcing risk control measures across all operational sites.

Additionally, Near Misses, Unsafe Actions, and Unsafe Conditions were reported 59 times in Sorowako, 6 times in Bahodopi, and once in Pomalaa throughout 2024. Monitoring such events plays a vital role in early detection of potential hazards and continuous improvement of field-level safety systems. [GRI 403-9][EM-MM-320a.1]

OHS Performance Statistics[GRI 403-9]

Indicator	2024		
	Sorowako	Bahodopi	Pomalaa
Lost Time Injuries	1	0	0
First Aid Injuries	20	2	
Near Miss Unsafe Action, Unsafe Condition	59	6	1
Days Lost due to Accident (Severity Rate)	400	0	0
Total Accident Rate (Frequency Rate)	0.30	0.27	0

Number and Rate of Occupational Accidents [GRI 403-9]

Occupational Accident Level	Sorowako		Bahodopi		Pomalaa	
	Total	Rate	Total	Rate	Total	Rate
Minor	15	0.51	2	0.55	1	0.39
Moderate and Severe	2	0,07	0	0	0	0
Fatal	0	0	0	0	0	0
Total	17	0.57	2	0.55	1	0.39

Safety Awareness Socialization for Contractors[GRI 202-2]

Occupational safety is a top priority at PT Vale Indonesia Tbk (PTVI), particularly for operational vehicle drivers who face the risk of accidents due to fatigue, negligence, and violations of safety regulations. In 2023, the Contractor Management Operations Department (CMT) recorded 202 driving violations by contractor workers, 39 of which were categorized as severe (Step 5). The number rose to 264 violations in 2024, underscoring the critical need to strengthen adherence to safety standards.

To address this, PTVI conducted a Safety Awareness Socialization program from November 19 to 22, 2024, in Sorowako, in collaboration with the Health, Safety, Operational Risk, Environment, and Sustainability Operations Department (HSORESO). Over 600 contractor workers—including bus and light vehicle (LV) drivers, supervisors, and operational managers (PJO)—participated in this training. The program aims to reduce violations, improve driving discipline, and foster a stronger safety culture. In addition to educating on the risks of fatigue and the consequences of violations, the session also encouraged the active role of PJOs in enforcing rules in the field.

This commitment aligns with the #SafetyIsMe campaign, emphasizing that safety is a shared responsibility. PTVI will continue to strengthen this initiative by promoting compliance and collaboration among all stakeholders to create a safer and more sustainable work environment.

Initiatives on Mental Health

In order to maintain the mental health of our employees, we provide various services that support mental and emotional well-being. As part of this initiative, PT Vale offers access to psychologists and psychiatrists at the INCO Sorowako Hospital/ Clinic, dedicated to offering professional care for employees experiencing mental health challenges. Additionally, we carry out regular health assessments to ensure the sustained physical and psychological wellness of all personnel.

PT Vale also supports the local community affected by disasters. The assistance provided includes trauma healing services for children who are disaster victims, as well as trauma healing services more broadly. Through these initiatives, we strive to create a healthy working environment and support our employees in achieving a balance between their personal and professional lives.

Helping Children Heal After Disaster — Trauma Support for Flood and Landslide Survivors in Luwu

As part of its humanitarian efforts, PT Vale Indonesia Tbk helped children cope with trauma following the floods and landslides through in Lindajang Sub-district, West Suli District, Luwu Regency, South Sulawesi.

The program was held on May 12, 2024, in collaboration with the Palopo Police Department and students from the Faculty of Medicine and Health Sciences at UIN Makassar. It included various educational and recreational activities such as singing, drawing, coloring, and group games aimed at helping restore the mental well-being of child survivors. In addition, PT Vale also distributed healthy food packages for pregnant women and toddlers as part of its support for nutritional needs in the affected area.

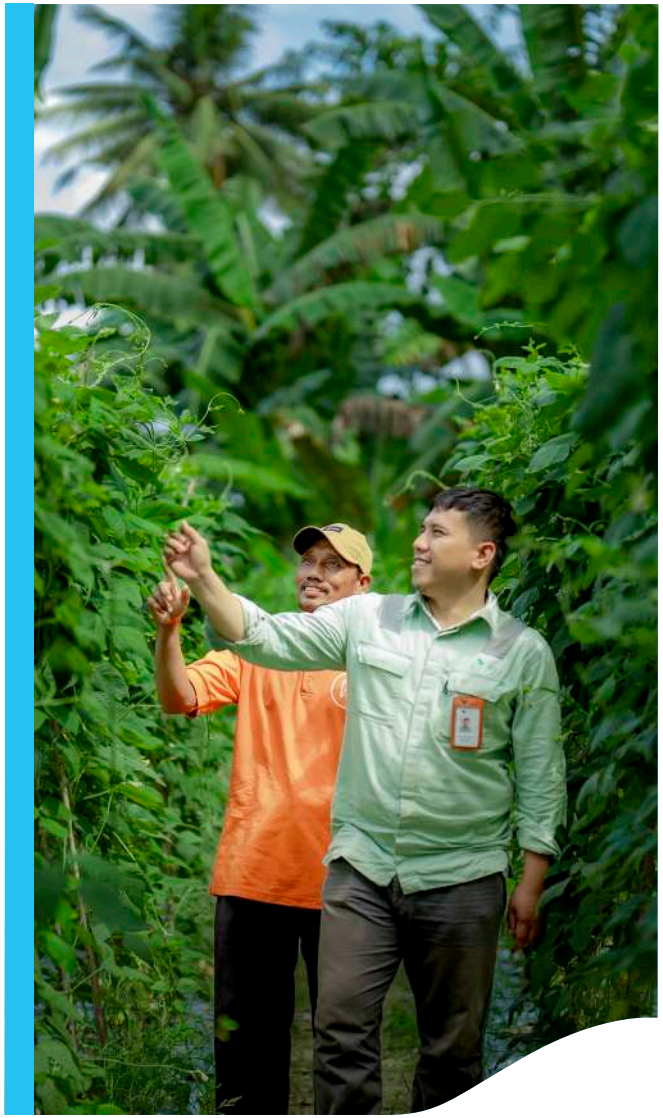
This activity is a continuation of PT Vale's broader disaster response initiatives, which previously included deploying the Emergency Response Group (ERG) team to assist with victim evacuation, as well as providing logistics support and heavy equipment to accelerate the recovery of infrastructure and transportation access in the disaster area.

PT Vale continues to play an active role in humanitarian support for its operational communities and their surroundings both during emergency response and throughout post-disaster rehabilitation and reconstruction phases, as part of its corporate social responsibility.dedicated healing sessions.

Maintaining Community Harmony through Strategic Engagement

VALE

General Approach



PT Vale Indonesia (PTVI) recognizes that our operational activities are closely interconnected with the lives of the surrounding communities. Therefore, we are committed to ensuring that every operational step is carried out responsibly, prioritizing the interests of the community, safety, well-being, and environmental preservation—beyond mere economic considerations.

Our approach to managing social impacts refers to international standards such as the IFC Performance Standards, ISO 26000, and ICMM guidelines. Our sustainability policy serves as the foundation for addressing social issues, including those directly related to communities around our operational areas. As a form of long-term commitment, we have developed a sustainability roadmap that serves as a strategic guide for planning, implementing, and evaluating programs aimed at creating long-term shared value.

We maintain constructive relationships with the community through open, meaningful, and continuous engagement. This includes information dissemination, gathering aspirations, and handling grievances through a structured complaints mechanism. The SDI system (Stakeholders, Demands, and Issues) is used to record interactions, monitor issues, and ensure prompt and responsive follow-up. In designing and implementing social programs, we also establish close communication with local communities and governments to ensure that the programs implemented are relevant to local needs and provide sustainable long-term impact.

Additionally, we support the preservation of local culture, community capacity building, and the improvement of quality of life through programs in education, health, economy, and infrastructure. In dealing with potential social impacts such as relocation, we apply the principle of mitigation hierarchy and strive to avoid displacement whenever possible. If relocation is unavoidable, the process is carried out in accordance with national regulations and international standards, with active involvement of stakeholders.

All these efforts reflect PTVI's commitment to conducting mining operations in a transparent, inclusive manner, aligned with the interests of the communities surrounding our operational areas.

As part of our transparency efforts, we have grouped various flagship programs designed to address issues, risks, and opportunities related to community aspects. The infographic below summarizes these programs, including material topics and achievements up to 2024.

Material Topic	Human Rights in the Community Community Engagement and Relations
Related Sustainability Topics	Human Rights Community Engagement Economic Impact Resettlement
Key Initiatives in 2024	SDI (Stakeholders, Demands, and Issues) System Ensures all complaints and grievances, including human rights violations, are recorded and followed up. • Community Development and Empowerment Program (PPM) aims to improve communities' quality of life by empowering the creative economy, developing infrastructure, and improving health and education. • Training and mentoring in field schools for farmers • Training for MSMEs to improve their technical and managerial capacity • Developing agrotourism and tourism around Lake Matano
Achievement 2024	• Throughout 2024, 83.7% of grievances were resolved • Revision of the stakeholder engagement plan and grievance mechanism in accordance with IFC standards • Handling of complaints related to human rights violations through the implementation of Human Rights Due Diligence (HRDD) • Preparation of Land Acquisition and Resettlement Framework (LARF) and Security Management Plan (SMP) • Updates to Security Risk Assessment (SRA) referring to the Voluntary Principles on Security and Human Rights (VPSHR) standard • Grievance mechanism training for all related departments. • ~300 families and >15 public facilities in Nuha District receive electricity subsidies • 113 micro, small, and medium enterprises (MSMEs) participants in the capacity and competitiveness improvement program • 115 members of women farmers' groups from 10 groups participate in organic farming training • 9 health centers in PT Vale • 41 students conducted research or internships in the operational area in Bahodopi

Respect for Human Rights

PT Vale is dedicated to upholding human rights of all stakeholders impacted by our operations, such as employees, business partners, and surrounding communities. This dedication is embedded in PT Vale's Sustainability Policy, which encompasses human rights risk management throughout the supply and manufacturing chains, and open monitoring and reporting of impacts.

This pledge is clearly outlined in PT Vale's Human Rights Policy, a guideline framework for protection, respect, and remediation of individual rights in the business activities of the company.

Access the Human Rights Policy:
https://vale.com/indonesia/our-policy

We guarantee that none of our business partners, including contractors and suppliers, are damaged by any association with human rights violations. Should such violations nevertheless happen, either through third-party complaint or through an internal investigation, PT Vale will impose sanctions accordingly. We also apply a mitigation hierarchy to our business operations to guard against human rights violations, following international standards such as the IFC Performance Standards. PT Vale upholds the Voluntary Principles on Security and Human Rights in the context of security and safety. We firmly reject the use of firearms or violence in our security activities, reserving them as a last option and in a manner that is both legal and proportionate, consistent with the UN Basic Principles.

Respect for Local Communities

Respect for community rights, including groups with strong connection to the company's operational areas, is a key principle of our sustainability commitment. In 2024, we continue to collaborate with relevant parties to ensure that the community engagement process is in accordance with the standards adopted by PTVI.

PT Vale is committed to building respectful relationships with communities by applying principles aligned with Free, Prior, and Informed Consent (FPIC). Although full implementation of FPIC is an ongoing process, we continue to strive to ensure that every interaction with the community is inclusive, transparent, and respectful of local aspirations.

Before starting any activity that may have the potential impacts, PT Vale holds open consultations with the community, sharing relevant and sufficient information, and opens up a dialogue to express views and concerns. This process is facilitated through a coordination forum involving the village government and community groups, representing our initial commitment to building meaningful and participatory consent.

We also understand that recognition of specific community groups is an essential part of upholding human rights. Therefore, if in the future there are legal provisions that specifically regulate the rights of these groups, PT Vale is committed to conducting engagement in accordance with applicable regulations and policies. This commitment is in line with our sustainability values and the foundational principle of human rights respect across our operations.

In addition, we regularly conduct social and environmental assessments to identify potential community impacts. Where significant impacts are found, PT Vale takes responsive mitigation measures such as adjusting work areas, preserving cultural sites, and supporting community capacity development. All of these efforts are carried out through participatory approaches that respect the cultural values of the local communities.[SASB EM-MM-210b.1]

Handling Human Rights-Related Grievances Through a Due Diligence Process[SASB EM-MM-210a.3]

PT Vale is committed to respecting, protecting, and fulfilling human rights as an integral part of our sustainability principles and responsible governance. We recognize that in carrying out complex operational activities, potential challenges and concerns from stakeholders may arise. Therefore, we strive to listen, understand, and proactively take appropriate and transparent corrective actions.

In 2023, we received an open letter from the community containing allegations of suspected human rights violations in areas around our operational sites, particularly in Sorowako, Asuli, and Tanamalia.

In response to this report, Vale Base Metals (VBM), one of PT Vale's main shareholders, commissioned an independent investigation as part of the Human Rights Due Diligence (HRDD) process. The objective was to gain a comprehensive, objective, and fact-based understanding of the alleged operational impacts on human rights in the reported areas.

The independent investigation aimed to assess the extent to which the concerns expressed in the open letter reflected the views and experiences of some community members in Sorowako, Asuli, and Tanamalia. Additionally, the investigation sought to determine whether those concerns required further review and follow-up through appropriate corrective or preventive measures. Based on the investigation's findings, we acknowledge that the concerns raised in the letter were indeed held by a portion of the community.

During the investigation, several community members also expressed appreciation for the positive contributions PT Vale has made—and continues to make—toward their lives and livelihoods. These findings are a vital part of our reflection process in developing more constructive, stakeholder-oriented improvement measures.

PT Vale fully welcomes and supports the results of the investigation, including the transparency of its findings to the public. The investigation produced a number of recommendations in response to the community's experiences and concerns, particularly regarding access to clean water, compensation mechanisms, livelihood sustainability, security approaches, and community engagement.

As a follow-up, PT Vale accepted these recommendations and developed a Human Rights Commitment and Action Plan—a comprehensive roadmap outlining steps to enhance and reinforce our human rights protection mechanisms. This plan includes enhancements to internal policies, grievance mechanisms, and a more inclusive and participatory approach to community engagement.

As part of our commitment to transparency and accountability, both the investigation report and the action plan have been published and are accessible via the company's official website:

Access the Human Rights Public Investigation Report document:

https://vale.com/documents/d/guest/ptvi-investigation-public-report-_-20240730

Access PTVI's Response and Action Plan:

https://vale.com/documents/d/guest/human-rights-commitment-and-action-plan

Summary of Human Rights Due Diligence Follow-up Action Plan

Topic	Goal and Follow up
Social & Environmental Management	Strengthening community engagement and updating grievance mechanisms in accordance with IFC PS5 standards. This includes staff training, routine reporting to the Board, and systematic issue tracking through the SDI system.
Sorowako: Compensation & Land issue	Compensation's evaluation and resettlement practices. Preparation of Land Acquisition and Resettlement Framework (LARF) to ensure compliance with national regulations and international
Asuli: Access to Clean Water	Human rights-based assessment of impacts on access to clean water, water quality monitoring, and review of community-based monitoring plans.
Tanamalia: Livelihoods & Consultation	Livelihood protection strategies, open and transparent dialogue about exploration activities, hydrological studies, and drafting of MoUs as a basis for understanding with the community.
Security and Freedom of Expression Approach	Adjustment of security policies refers to the Voluntary Principles on Security and Human Rights (VPSHR), human rights-based security training, and the involvement of independent facilitators in community dialogue.

The progress of the implementation of the action plan will be updated regularly through PT Vale's official website in line with our commitment to transparency and open communication.

Human Rights Training for Security Personnel[GRI 410-1]

The Company ensures that all security personnel have adequate knowledge and understanding of human rights. To uphold this commitment, PT Vale implements training and certification in accordance with the provisions outlined in the Chief of the Indonesian National Police Decree No. 4 of 2020 on Self-Security In this provision, material on law and human rights is part of the mandatory training curriculum.

All security personnel, comprising Company staff and those contracted through BUJPs officially certified and registered under the Indonesian BUJP Association have undergone training and obtained official certification with the *Gada Pratama* and *Gada Madya* qualifications from the Indonesian National Police.

Relocation and Rights to Land and Resources[GRI 14.12.2]

PT Vale recognizes that the company's operational activities require access to land that is currently utilized by local communities. We are committed to avoiding relocation whenever possible. However, if relocation becomes unavoidable, we will ensure that the process is carried out in a fair, transparent, and participatory manner, respecting the rights and well-being of the affected communities.

In accordance with the IFC Performance Standard 5 (PS5), PT Vale collaborates with local communities to identify, prevent, and manage the social and economic impacts resulting from land acquisition or restrictions on land use. The key principles we adhere to include the protection of land rights, livelihoods, and the fair treatment of all affected parties.

As part of our efforts to improve governance, PT Vale has initiated a comprehensive diagnostic process to assess past compensation and resettlement practices, including in the regions of Sorowako, Bahodopi, and Pomalaa. The goal of this review is to evaluate whether past processes align with applicable standards and identify necessary corrective actions. This study also aims to anticipate potential claims arising from shortcomings in previous processes and to manage community expectations fairly.

To ensure consistency in standards across all operational areas, PT Vale is developing a Land Access and Resettlement Framework (LARF) that integrates compliance with national regulations and international standards.

This framework includes:

1. Development of clear, consistent, and transparent compensation policies;
2. Review of past payments and their impact on community livelihoods;
3. Open communication of the study results to stakeholders;
4. Taking the necessary corrective actions responsibly;
5. Clear separation between impact mitigation activities and social investment; and
6. Proactive, documented, and inclusive consultation processes.

With this approach, our goals are to ensure that land acquisition and resettlement processes are carried out responsibly and in alignment with human rights principles, social justice, and sustainable development.

Post-Relocation Recovery and Development Program for Sustainable Livelihoods of the Dongi Community[GRI 14.12.2][GRI 14.12.3]

The To Karunsi'e Dongi tribe, one of the Indigenous groups in Sorowako, East Luwu, returned to the area in the 1970s after being displaced during conflicts in the 1950s. When the To Karunsi'e Dongi tribe returned, a portion of the land they reoccupied had been designated as part of PT Vale's Contract of Work area. To support the settlement process, the East Luwu Regency Government issued Regent Decree No. 166 of 2004, officially recognizing 57 Dongi community heads of families as eligible recipients of resettlement rights.

As part of our commitment to upholding human rights and promoting sustainable development, PT Vale has implemented an integrated relocation program in close collaboration with local government and stakeholders, ensuring a participatory and inclusive approach. This program has been completed, and currently PT Vale is focusing its efforts on strengthening the sustainable livelihoods of the Dongi community post-relocation.

The current focus of the program is to foster economic self-sufficiency and improve community well-being through a sustainable empowerment approach. Key initiatives include:

- Local economic training: Community members receive training in organic vegetable cultivation, the production of natural fertilizers, and the development of herbal products. These initiatives enable new entrepreneurial avenues while simultaneously reinforcing food security at the household level.
- Local workforce empowerment: During the construction of housing and infrastructure, approximately 90% of the workforce has been sourced from the local community. In addition to generating income, this engagement contributes to skill development in construction and civil engineering among community members.
- Empowering the role of women: PT Vale actively engages women's groups in entrepreneurship training and sustainable agricultural practices, enabling broader participation in household and community-level economic activities.
- Support for sustainable infrastructure: Efforts include the deployment of solar-powered streetlights and the construction of eco-friendly sanitation facilities contribute to creating a healthier, safer, and more comfortable living environment for the community.

Key Infrastructure Accomplishments (2020–2024):

- Renovation of 57 housing units with proper sanitation systems.
- Renovation of community churches to support social and religious engagement.
- Construction and improvement of 1,400 meters of road access.
- Construction of a 1,800-meter road drainage system as flood mitigation measure.
- Construction of a clean water pipe network (2023–2024), in parallel with a comprehensive AMDAL process aimed at sustainable development.

For a complete chronology of the Dongi Community relocation program and its key achievements, please visit:

https://vale.com/in/indonesia/esg/pemberdayaan-masyarakat-dongi

Community Engagement/Relationship [GRI 413-1]

Management of Impacts on Communities[GRI 413-1] [GRI 413-2] [POJK51-F.23]

We believe that managing social impacts on surrounding communities is a vital part of operational sustainability. To that end, we follow best practices and internal company guidelines to minimize and address potential social impacts.

Each operational site presents unique socio-political and environmental challenges. Therefore, our approach to stakeholder engagement is adaptive, while remaining consistent with the principles of transparency and accountability. We also recognize that open engagement may give rise to new community expectations, the potential for information misuse, and the need for additional resource allocation.

We consistently implement various programs that provide indirect benefits to the community, such as road and bridge improvements in Loeha Village and the provision of clean water facilities in Mahalona Village. We believe that meaningful engagement helps build trust and reduce the risk of social conflict, ultimately contributing to the establishment of a sustainable social license to operate (SLO).

Most of our operations have implemented participatory community engagement processes in social impact assessments and community development programs as part of our operational practices.[SASB EM-MM-210b.2] [GRI 413-2]

Below is a summary of the impact assessments from the three main areas of our operations:

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
Sorowako Block			
Nuha District	5	13%	Air Pollution Management Measures: • Use of air filters • Carbon emission reduction technologies • Sustainable environmental management Water Pollution Management Measures: • Runoff sedimentation ponds • Wastewater treatment installations • Recycling of liquid and solid waste • Sustainable environmental management Soil Pollution Management Measures: • Reclamation of former mining land • Recycling of solid waste • Sustainable environmental management Employment Opportunities Management Measures: • Increase in real income • Infrastructure development • Food security programs

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
			Population Growth Management Measures: • Infrastructure development • Food security programs • Sustainable environmental management Cultural Changes Management Measures: • Strengthening local social and cultural values • Sustainable environmental management
Wasuponda District	6	15%	• Food security program • Increase in real income • Infrastructure development • Strengthening of local social and cultural aspects • Sustainable environmental management
Towuti District	18	47%	Air Pollution Management: • Use of air filters • Carbon emission reduction technology • Sustainable environmental management Water Pollution Management: • Sedimentation ponds for runoff water • Wastewater treatment plants • Recycling of liquid waste • Sustainable environmental management.

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
			Land Pollution Management: • Reclamation of former mining land • Recycling of solid waste. • Sustainable environmental management Job opportunities Management: • Food security programs • Increase in real income • Infrastructure development Population growth Management: • Infrastructure development • Food security program • Sustainable environmental management Local cultural change Management: • Local social and cultural resilience program • Sustainable environmental management
Malili District	9	23%	Air Pollution (increased dust particles due to operational vehicle activity) Management: • Road improvement and vehicle speed limitation to reduce airborne dust • Regular road maintenance and water spraying

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
			Water Pollution (potential water contamination due to industrial or project activities) Management: • Environmental management to maintain water quality Employment Opportunities (availability of job opportunities for local communities) Management: • Food security programs to support community welfare • Increase in real income Population Growth (due to incoming workers from outside the area) Management: • Development of supporting infrastructure • Spatial planning and provision of basic services Changes in Local Culture Management: • Local social and cultural resilience programs
Pomalaa Block			
Pomalaa District	12	55%	Population Growth and Changes in Local Culture Management: • Program interventions to increase real income and preserve socio-cultural values Increase in Dust Particles Due to Operational Vehicle Activity Management: • Regular road maintenance and water spraying

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
			Land Acquisition from Vulnerable Community Plantations Management: • Preparation of a Land Rehabilitation Program (LRP)
Baula Distric	10	45%	Population Growth and Changes in Local Culture Management: • Program interventions to increase real income and preserve socio-cultural values Increase in Dust Particles Due to Operational Vehicle Activity Management: • Regular road maintenance and water spraying Land Acquisition from Vulnerable Community Plantations Management: • Preparation of a Land Rehabilitation Program (LRP)
Bahodopi Block			
Bungku Timur District	10	77%	Population growth, local cultural changes Management: • Real income increase program intervention, socio-cultural sustainability. Waste piles Management: • Household waste management Increased dust particles due to operational vehicle activities. Management: • Regular road maintenance and watering

Region	Number of Villages Affected	Percentage Of Villages In Operational Area	Impact Management and Forms of Social Investment
Bahodopi District	3	23%	Population growth, local cultural changes Management: • Real income increase program intervention, socio-cultural sustainability. Waste piles Management: • Household waste management. Increased dust particles due to operational vehicle activities: Management: • Regular road maintenance and watering

Grievance Mechanism[GRI 14.10][POJK F.24]

As part of its responsible stakeholder engagement approach, PT Vale Indonesia Tbk (PTVI) offers a grievance mechanism that is easily accessible to all stakeholders, including local communities. This mechanism serves as a tool for raising concerns, complaints, or potential human rights violations.

To ensure its effectiveness and alignment with global best practices, PT Vale has updated its Stakeholder Engagement Plan and Grievance Mechanism to align with IFC Performance Standards and has conducted internal training for all relevant departments.

Communication channels include a phone number, a complaint box, email and postal addresses, as well as regular coordination meetings at the sub-district level. All complaints are logged into the Stakeholder Demands and Issues (SDI) System, reviewed and addressed according to procedures, and communicated back to the reporter as part of transparency.

Complaint data is also periodically reported to PTVI's Board of Directors to ensure managerial support in addressing strategic issues promptly. If human rights impacts are detected, PT Val is committed to taking corrective and mitigation actions fairly and effectively, in collaboration with relevant parties.

PT Vale prioritizes the principles of legitimacy, accessibility, fairness, transparency, and continuous learning, referring to the UN Guiding Principles on Business and Human Rights (UNGPs) and ICMM guidelines. By providing a clear, open, and inclusive grievance mechanism, PT Vale aims to continue building harmonious and respectful relationships with local communities and other stakeholders.

Grievance Mechanism:

1. Grievance Submission
Grievances can be submitted verbally or in writing via email, phone, or complaint box. Once received, each grievance is recorded and forwarded to the relevant party for investigation and follow-up.

2.Grievance Investigation
The grievance is reviewed by a team consisting of External Relations and representatives from the relevant departments. Input from external parties, such as local government officials, may also be considered during the process. The evaluation will determine whether the grievance warrants further action.

3. Grievance Resolution
Valid grievances will be addressed through an appropriate resolution method, such as direct handling by the responsible unit, negotiation, consultation, or third-party involvement. The agreed-upon resolution will be documented in a report signed by both parties.

4. Resolution Verification
The resolution is verified based on the signed agreement and supported by evidence such as photographs and written documentation. If both parties are satisfied, the grievance is considered resolved and the case is closed. Any new issues outside the scope of the original grievance will be treated as new and processed accordingly.

Throughout 2024, there were a number of reports and grievances submitted to PT Vale by the community and stakeholders, addressing a range of concerns related to social, operational, and environmental aspects. These grievances are an important part of building transparent and constructive two-way communication between the company and the surrounding community. The range of reported topics included various issues, including environmental issues that are of common concern in efforts to maintain the sustainability of operational activities.[POJK51 F.16]

Here is a summary of the grievances received:

- The Sorowako operation area received 207 grievances, including issues such as road access and conditions, compensation payments, land conflicts and land acquisition, job opportunities, access to water and water resources, requests for permanent housing, property or home damage, water quality, dust, compliance with legal agreements, and involvement of service providers or suppliers.

- The Pomalaa operation area received 80 grievances, which included issues related to land conflicts and acquisition, as well as general information about the project such as scope and timeline. Other complaints involved dust, compliance with legal agreements, fires, road or port accidents, and issues with logging or deforestation.

- The Bahodopi operation area received 86 grievances, including concerns about road access, employment opportunities, property impact, land conflicts, and requests for social support.

Location	Number of Grievance	% Total Reports Completed
Sorowako	207	74.9%
Bahodopi	80	100%
Pomalaa	86	76.1%

Some complaints that are still in the process of being resolved are currently being worked on to achieve the best solution for all parties. We recognize that each complaint has a unique context, therefore we are committed to resolving them with a fair and transparent approach. We ensure that there is open communication with the complainant so that they feel valued and heard.

In addition, we will continue to evaluate each stage that has been passed to ensure that the steps taken meet the standards of justice, human rights, and transparency. We are also committed to continuing to learn from each complaint to prevent similar problems from occurring in the future.

Responsible Approach to Tanamalia Exploration

To ensure that exploration activities in Tanamalia are conducted in an inclusive and responsible manner, PT Vale complies with IFC Performance Standards and prioritizes stakeholder engagement from the beginning. PT Vale actively interacts with community groups, including farmers and local organization representatives. This is done through both formal and informal forums to assess their concerns about long-term impacts on land, livelihoods, and access to clean water.

This engagement comprises sharing information about exploration plans through print and digital media, as well as direct discussions on potential impacts and mitigation strategies. Community input informs the development of the Land Access Plan (LAP) and fosters mutual understanding, ensuring PTVI's commitment to protecting community rights and managing social impacts by reinforcing the concept of "co-existence framework" that we promote, where communities can continue to carry out their activities with minimal impact from exploration activities.

SPT Vale also establishes constructive communication with local governments, including regional councils, to ensure exploration processes align with community expectations and aspirations. All approaches are based on principles of transparency, participation, and respect for human rights, while supporting ESG best practices and international standards like IFC. We assure that solutions related to livelihood and meeting the needs of the community in Tanamalia will always be an integral part of this process, in order to maintain a balance between economic development and social protection.

In 2024, PT Vale continue to enhance stakeholder engagement through various initiatives, both formal and informal. This engagement will be carried out through programs designed to encourage community participation and support social, educational, and environmental development. Several programs have already been implemented, including:

Vocational Program
Certified training programs aimed at developing a skilled and competitive local workforce.

Safari Ramadan
Fostering engagement between the community and the company, along with reinforcing the company's social responsibility role.

Talent Scouting
Preparation for entering college.

KSP Training 2024 Loeha Raya School
Enhancing the capacity of schools and educators through training in curriculum development and school-based management

World Environment Day Tanamalia Block
Public awareness about the importance of caring for the environment and transforming waste into valuable, useful products through careful management

17th August 2024 Independence Day Event
An event aimed to strengthen ties between villages in the Tanamalia Block and PT Vale.

Initiatives to Create Positive Impacts for Society[POJK51-F.25]

PT Vale implements integrated social initiatives to create a positive impact on the communities surrounding the mine, Improve their quality of life and plan for a sustainable economy after mining. This program involves partnerships between the community, government, and the company to achieve sustainable development.

PT Vale improves the community's quality of life through the Community Development and Empowerment Program (PPM), focusing on fostering creative economic empowerment. developing infrastructure, and enhancing health and education. This initiative aims to create job opportunities, increase income, and facilitate access to education and healthcare services.[GRI 203-1] [GRI 203-2]

Vale's commitment to the community is not limited to the active mining period but also extends to the sustainability of their lives after mining operations cease. This program is designed to help communities manage local resources sustainably, allowing them to continue to thrive and be self-sufficient without relying on mining activities.

In 2024, we allocated US$4,000,198 as a direct reflection of this commitment for the implementation of the Community Development and Empowerment Program across the operational areas of PTVI. Compared to the previous year, this amount is lower due to the delay in the commencement of Regular PPM activities in the Pomalaa area, which is still in the process of appointing a permanent official.

Detailed information regarding the allocation of costs by program type can be found in the Data Table chapter.

PPM Fund per Year (US$)		
2024	2023	2022
4,000,198	5,571,359	6,381,165

Programs and Activities	Sorowako	Bahodopi	Pomalaa*	Total
Education	142,608	25,430	-	168,038
Health	255,729	38.817	-	294,546
Real Income Level	181,517	176.671	57.448	415,636
Economic Independence	832,568	49.929	-	882,497
Social Culture	320,524	27.472	-	347,996
Social Environment	48,250	130,938	-	179,608
Community Institutions	272,149	16,041	-	288,190
Infrastructure Development that Supports PPM	1,244,470	179,637	-	1,424,107
Total	3,297,815	644,936	57,448	4,000,198

** The program has not been realized due to pending inauguration of definitive officials later this year*

PPM Sorowako Realization[GRI 203-2]

Education

In 2024, PT Vale's Community Empowerment and Development Program (PPM) in the education sector focused on improving the quality of education through the provision of supporting facilities, enhancing the capacity of educators, and supporting access to education in remote areas in line with our previous commitments.

One of our initiatives was the provision of school buses in five villages—Balambano, Laskap, Pongkeru, Pasi-Pasi, and Harapan—helping to overcome transportation challenges. We hope that this facility will increase school attendance and motivate students to continue their education. PT Vale also awarded postgraduate (Master's and Doctoral) scholarships to community members to improve human capital in the surrounding areas. In August 2024, PT Vale granted scholarships to 70 students from the University of Sembilanbelas November Kolaka (USN) who demonstrated academic achievement but faced economic hardship.

These initiatives underscore PT Vale's role in enhancing access to quality education and empowering a smarter, more competitive generation.

Health

Inco Hospital is one of our key contributions to improving the quality of life in communities around our operational areas, particularly in enhancing public health services.

The healthcare services we provide to the local community include check-ups, consultations, treatment, and referrals to other hospitals if necessary. In the first quarter of 2024, 456 people from the community benefited from outpatient and inpatient care, as well as referrals.

We also run disease prevention programs, with a focus on combating Dengue Fever through activities such as mosquito nest elimination competitions and "Junior Jumantik Cadre" training for elementary school students. We also launched a program called "Martabak Berdasi" to address hypertension and diabetes.

Additional educational programs include promoting participation in the National Health Insurance (BPJS), helping the community register, and conducting "Drug Awareness and Safe Driving" campaigns in collaboration with the National Narcotics Board (BNN) targeting youth, parents, and educators.

Public health education is crucial to fostering awareness about the importance of preventive healthcare. Our contributions help improve access to quality healthcare and promote overall community well-being.

Economic Empowerment

Our economic empowerment programs in Sorowako focus on increasing community income through organic farming, capacity-building, circular economy practices, and support for Micro, Small, and Medium Enterprises (MSMEs).

These efforts include training and field school mentorship for farmers, and technical and managerial capacity-building for MSME actors. The organic farming program involved 115 participants from 10 Women Farmers Groups (KWT). Through these trainings, we aim to help communities increase their income and strengthen the local economy.

We also assist MSMEs in expanding market opportunities, particularly at the regional level, in collaboration with the South Sulawesi Chamber of Commerce (APINDO). PT Vale has also taken the initiative to develop agro-tourism and tourism around Lake Matano and other areas as part of the Economic Independence Program.

To further support MSMEs and leverage the momentum of Ramadan, we hosted the "UMKMFest," in which 50 MSMEs participated. This event helped them expand their market networks and create new economic opportunities.

Socio-Cultural

PT Vale supports religious and cultural preservation activities. We were involved in the renovation of mosques in several villages, such as Darul Amin Mosque in Puncak Indah Malili and Al-Furqan Mosque in Palopo. We also participated in cultural events such as Luwu Anniversary and Luwu People's Resistance Day, and supported religious events such as the Tabligh Akbar and the construction of Nurul Ilham Mosque in Lette, Mariso Losari Regency.

In preserving local culture, PT Vale also supports eco-tourism and environmental awareness efforts at Laa Waa River Park through tree planting and eco-tourism management training. Through economic, cultural, and environmental empowerment, PT Vale aims to create lasting positive impacts for the community.

Environment

Our environmental programs span several locations. At Lake Matano, PT Vale involves the local community in conservation and ecosystem management efforts, including fish population surveys, biodiversity maintenance, and sustainable use of invasive species. These programs aim to protect endemic species, improve ecological balance, and deliver economic benefits.

We actively engage local youth through the Village-Owned Enterprise (BUMDes) Nikkel, with the involvement of local governments and youth organizations in policy implementation. These efforts aim to raise environmental awareness and deliver community-wide benefits.
Another key initiative is community-based waste management, designed to reduce waste and create economic opportunities through waste banks in the villages of Matano, Towuti, Wasuponda, and Nuha. This includes waste management training and the production of goods from waste materials, such as aromatic candles made from used cooking oil.

The program targets a 30% reduction in waste generation and 70% managed waste treatment by 2025, aligned with Presidential Regulation No. 97 of 2017 on the National Policy and Strategy for Household Waste Management (Jakstranas). These efforts not only raise environmental awareness but also create sustainable economic opportunities and strengthen collaboration between communities, local governments, and PT Vale.

Realization of PPM in Pomalaa

In Pomalaa, PT Vale assists conventional farmers in transitioning to environmentally friendly organic farming through the Sustainable Environmentally Friendly Healthy Agriculture Program (PSRLB). Our support includes training and guiding them in adopting the Organic Rice Intensification System (SRI) and helping market their agricultural products. This program has led to higher agricultural yields and increased farmer incomes.

Additionally, we promote the conversion of organic waste into compost. Other community empowerment programs we conduct in this area include processing medicinal plants into quality herbal products. The local community has successfully started producing Wedang Rempah, Rosella, Simplisia Bunga Telang, and Virgin Coconut Oil (VCO). We participated in the International Conference and Expo on Jamu (Loloh) in Bali in December 2024 with these products. This program boosts local skills and opens up bigger market opportunities to showcase Pomalaa's natural wealth globally.

Realization of PPM in Bahodopi

Education

Throughout 2024, PT Vale Indonesia, through the IGP Morowali Project, implemented various initiatives in the field of education to strengthen the capacity of the younger generation in the empowerment area. A total of 41 students and university students from various schools and universities in Indonesia participated in internship and research programs that provided direct experience in the mining and community development sectors. In addition, various training programs were held to improve job readiness and local competitiveness, such as job interview simulations, introduction to psychological tests, and effective CV writing training.

The company also organized personal development seminars themed around growth mindset and the introduction of artificial intelligence (AI) technology for youth in villages around the project area. As a form of social inclusion in the education sector, PT Vale also facilitated equivalency education programs Package B and C for those who have not completed formal education, supporting equitable access to education and sustainable development.

Health

In 2024, PT Vale Indonesia, through the IGP Morowali Project, focused health efforts on addressing stunting and improving nutrition for pregnant women and toddlers in the empowerment area. In collaboration with the Morowali Health Department and village cadres, the company provided supplementary food and delivered nutrition education, growth monitoring, and family guidance. This program is targeted to be completed by the first quarter of 2025 as a long-term strategy to strengthen the health of future generations.

In addition to curative approaches, the company also ran promotive and preventive initiatives such as the "One Tree, One House" program in Bohomahi Village to encourage balanced nutrition consumption through planting moringa trees and conducting group exercise activities. PT Vale also supported UKBM Herbal by mentoring PKK groups in eight villages in areas such as production, sanitation, administration, and halal certification for local herbal products. Several groups have obtained halal certification, expanding market access and increasing the economic value of the community.

Real Income Level / Employment and Economic Independence

Through the IGP Morowali Project, PT Vale Indonesia promotes sustainable local economic transformation with a focus on increasing real income, job creation, and strengthening community value chains. The Sustainable Environmentally Friendly Healthy Agriculture Program (PSRLB) has supported the cultivation of 11.89 hectares of organic rice in four villages and 4.59 hectares of organic vegetables in seven villages, successfully obtaining certification from INOFICE. This program strengthens food security while enhancing the quality and competitiveness of local agricultural products.

Business innovation is being developed through PEPSOLI, an organic farming business model that integrates production, distribution, and marketing of organic rice. PEPSOLI products have reached various market segments with varied packaging, supported by digital marketing strategies and participation in exhibitions. Through collaborative approaches with farmer groups, stores, local agents, and middlemen, as well as the use of appropriate technology, PEPSOLI has expanded its distribution reach while creating added value from agricultural by-products.

Economic Independence

PT Vale Indonesia, through the IGP Morowali Project, continues to strengthen the MSME sector as a pillar of local economic independence. Throughout 2024, support was provided through interactive and practical training in Laroue Village, covering business planning, production management, and marketing strategies for three business groups: Nata de Coco, Smoked Fish, and Lumako Chili Sauce. This approach aims to create adaptive and innovative entrepreneurs capable of competing in a broader market.

The results of this program are starting to show, such as Lumako Chili Sauce winning the Favorite Award at the 2024 Nusantara Chili Festival, and the participation of supported MSMEs in the Jamu International Expo to promote local herbal products. PT Vale carries out a community-based MSME development strategy in a sustainable manner, in line with ESG principles and supporting SDG targets related to economic growth, industrial innovation, and sustainable consumption and production.

Social and Cultural

PT Vale Indonesia, through the IGP Morowali Project, continues to demonstrate its commitment to preserving local culture and building inclusive social development. Throughout the year, various initiatives have been carried out to strengthen cultural identity and enhance social cohesion. Support was provided for the district-level Quran Recitation Competition (MTQ) and the implementation of the Local Cultural Festival, which featured traditional games such as "Mehule" and the "Luminda" dance, as an effort to preserve cultural heritage and encourage youth involvement.

Additionally, the company showed social concern through the distribution of aid for residents affected by the fire in Bahomotefe Village. All of these initiatives reflect a responsive and sustainable community-based approach, in line with the Social Responsibility principle within the ESG framework, and support the achievement of SDG 4, SDG 10, and SDG 11.

Community Empowerment in Environmental Management

As part of its commitment to participatory environmental governance, PT Vale Indonesia, through the IGP Morowali Project, continues to promote community-based waste management to create a self-sustaining, standardized, and adaptive system. Throughout the year, support was provided for the operation of the Onepute Jaya 3R waste management site, including the development of technical SOPs, increasing community participation, and waste segregation education. At the same time, preparations for the establishment of a new 3R waste management site in Dampala Village were underway, adhering to technical standards from the Ministry of Public Works and involving cross-stakeholder coordination.

PT Vale also strengthened the institutional capacity of the LPM Valone Jaya as the manager of the 3R waste management site through financial management training and accountability support.

Environmental education programs were expanded to primary schools, encouraging early awareness. Within four months, the number of customers at the Onepute Jaya 3R site increased by more than 100%, reflecting improved community participation. Moving forward, this model will be replicated in other villages as a strategy to build an inclusive waste management ecosystem based on community empowerment.

Community Institutional Formation

PT Vale Indonesia, through the IGP Morowali Project, places strengthening local institutions as a key element in achieving sustainable empowerment. Throughout the year, support was focused on strengthening community organizations such as TPK, herbal communities, and MSMEs in supported villages, covering aspects of governance, product innovation, and marketing strategies relevant to local potential. In Laroue Village, three official MSMEs were established—Berkah Jaya, Lumako, and Bahonala—that have participated in the "UMKM Naik Kelas" program and received facilitation in branding development and market expansion.

In the field of environmental management, PT Vale also supported the establishment of LPM Valone Jaya in Onepute Village as the manager of the 3R waste management site. This institution was supported in financial management and activity reporting, and is being explored as a community-based replication model. These efforts strengthen local social capacity and responsible governance, in line with the Social Governance principle within the ESG framework, and support the achievement of SDG 8, SDG 11, and SDG 17.t

Supporting Infrastructure for Community Development Programs (PPM)

As a form of development based on community aspirations, PT Vale Indonesia, through the IGP Morowali Project, continued the implementation of the Village Participation Program throughout 2024. This program allows local residents to directly determine development priorities through a consultation forum. By the fourth quarter of 2024, six infrastructure projects were completed, including the construction of village fences, tourism facilities, breakwaters, and clean water reservoirs. These infrastructures aim to improve public access, basic services, and support socio-economic activities.

Seven additional activities are still under construction and are targeted for completion by the first quarter of 2025, while two other villages are in the administrative preparation stage. This program not only strengthens physical infrastructure but also fosters local governance, active participation, and cross-sector collaboration. These initiatives reflect the company's commitment to ESG principles, particularly in governance and social responsibility, and support the achievement of SDG 6, SDG 9, and SDG 11.

Pineapple Agrotourism Program in Tabarano Village

As part of PT Vale's commitment to community empowerment and environmental preservation, we have developed an initiative in the beautiful landscape of Tabarano Village, East Luwu Regency, South Sulawesi. We have partnered with the local community to run the Tabarano Agrotourism Program, which marks a new chapter in the village's economic development and environmental conservation.

Launched in early 2024, we are working together to convert previously unused, disaster-prone land into a productive and sustainable agricultural area. On this 1.5-hectare plot, 15,000 pineapple seedlings have been planted. This initiative was designed not only to generate economic opportunities but also to protect the area from potential natural disasters such as droughts, fires, and landslides that frequently occur. The villagers were also taught how to grow pineapples in an eco-friendly way, without the use of chemical fertilizers.

> "With the establishment of this pineapple horticultural area, we are able to help families that fall under the poverty category. We have employed 15 villagers and plan to expand the area," said Rimal Manukallo, Head of Tabarano Village.

According to the village head, Rimal Manukallo, this initiative has opened up job opportunities while enhancing the skills of the locals in sustainable farming. Even more encouraging, our efforts have been recognized with the prestigious Subroto Award 2024 in the category of Community Development and Empowerment (PPM). This award serves as recognition of our dedication and motivates us to further develop programs that have a positive impact on the community.

The evaluation of this program was conducted using the Community Satisfaction Index (IKM) method, which measures satisfaction levels in three phases: planning, implementation, and socio-economic impact. The evaluation results showed a satisfaction rate of 78.86%, indicating that the majority of the community is satisfied with the program. The program was rated highly in terms of community participation, understanding of cultivation techniques, and technical support from PT Vale. However, there is still room for improvement, particularly in helping the community better understand the program and take part in planning and using what they've learned.

photo

Laa Waa River Park: Sustainable Ecotourism for the Community and Nature

Laa Waa River Park, located in Matano Village, Nuha District, East Luwu Regency, is a successful example of sustainable ecotourism management. The name "Laa Waa" means "never dry," and it is located by Lake Matano, offering stunning natural beauty. Since the opening in 2022, Laa Waa River Park has not only become a popular tourist destination but has also had a significant economic impact on the local community.

Through the Community Development and Empowerment Program (PPM), we have helped the development of Laa Waa River Park by building a community hall, providing speedboats, and supplying a village ambulance. This support is important because the village is hard to reach—Lake Matano limits access to the area.These facilities help facilitate access to healthcare and improve mobility for the residents.

The park not only showcases the area's natural potential but also creates job opportunities and boosts the income of local residents. As the number of visitors to Laa Waa River Park grows, so do small and medium-sized business opportunities for the community. The introduction of digital payment facilities and affordable entry fees has further simplified this process.

In 2022, Laa Waa River Park was ranked among the top 50 best tourist villages in Indonesia. This award serves as evidence that ecotourism management, which involves the community and is environmentally conscious, can create sustainable positive impacts.

In over 50 years of mining activities, the ecosystem of Lake Matano has remained well-preserved, proving our commitment to environmental sustainability.

While this program has had positive impacts, evaluations show that some improvements are needed. One of the key areas is getting the community more involved, which is still being planned. We also need to improve communication to build a stronger sense of ownership and avoid confusion. Additionally, to ensure this program lasts in the long run, it is important to strengthen the skills of local facilitators and build up the community's abilities. Focusing on growing local small and medium-sized businesses (SMEs) and the tourism industry is key to helping the community become economically independent.

> "I traveled all the way from Jakarta to East Luwu and visited Laa Waa River Park. I am very happy; the long journey was worth it because of its beauty. Moreover, the place is very clean, you couldn't find a piece of trash," said Tias, a visitor to Laa Waa River Park.

Organic Farming Transformation in Kolaka: Blessings from PT Vale's Program

Our journey in introducing the System of Rice Intensification (SRI) or Organic Rice Cultivation Method to the community in Kolaka was not without its challenges. A group of farmers in Puuroda Village, Kolaka, was initially hesitant when we approached them to try this method through the Sustainable, Environmentally Friendly Agricultural Program (PSRLB). This hesitation was understandable as the SRI method was new to them and different from their conventional farming system, which heavily relied on chemical fertilizers. After agreeing to give it a try, we began providing technical training, understanding the importance of sustainable farming, and how to manage agricultural products.

Mustari, one of the farmers who participated in the program, is grateful for his decision to join the PSRLB training.

> "We were initially unsure, but after seeing the results, we are very thankful. Organic farming really makes a difference. It required more work in the beginning, but the results have been very satisfying. Organic farming not only reduces costs but also yields better results," said Mustari, a participant in the PSRLB program.

The SRI Organic method that we introduced to the farmers in Puuroda Village resulted in much higher yields. Mustari now harvests up to five tons of rice per hectare, far higher than the yields when he used the conventional farming method.

We are proud that this program has created a positive impact on the lives of farmers, as explained by Watno, the head of the Kolaka Organic Farmers Association. Farmers have now switched to environmentally friendly farming practices and no longer rely on chemicals in agriculture.

They gained more than just farming knowledge; they also learned about marketing and product development. Additionally, PT Vale supported the promotion of their agricultural products. The organic rice produced is now marketed at a more competitive price of IDR 20,000 per kilogram.

As of now, 56 farmers have joined our development program, with a total planting area of nearly 12 hectares, and they have completed 12 harvests.

The new knowledge provided by this program helps other farmers maintain their health in a natural and environmentally friendly way.

Another farmer, Salmi, shared how her health has improved after participating in this program. Salmi, who had heart disease, started consuming organic rice and herbal medicine available through the PSRLB program.

We are proud of the success of this program, as it has not only boosted agricultural harvests but also enhanced the health and well-being of farmers. This aligns with the principles of sustainability and Environment, Social, and Governance (ESG). PT Vale hopes that PSRLB can strengthen farmers' economic independence and support environmentally friendly agriculture for a sustainable future.

"By learning from the PSRLB-UKBM Herbal program, we have avoided purchasing pesticide toxins and synthetic chemical fertilizers. Another benefit we gained is that the organic SRI rice harvest exceeds previous yields when we were using chemical fertilizers and pesticides. One proof of this is that from the organic SRI rice harvest, I was able to buy a new motorcycle. We are grateful to PT Vale for guiding us,"

Mr. Rudin

Organic SRI Rice Farmer in Ululere Village.

About This Report

VALE

About This Report

This Sustainability Report reflects PTVI's commitment to transparency and accountability in managing key sustainability issues in 2024. Through this report, we aim to provide a comprehensive overview to all stakeholders—including the government, employees, labor union representatives, non-governmental organizations (NGOs), civil society, investors, customers, and suppliers—about our efforts and achievements in conducting responsible operations.

In this report, we intend to share PTVI's sustainability journey, focusing on our strategic approach and corporate governance. We also outline concrete steps we have taken to enhance operational efficiency, address challenges, protect the environment, and deliver positive contributions to surrounding communities.

As a testament to accountability, PTVI's Sustainability Report has been approved by the Board of Directors and Board of Commissioners, the highest governance bodies responsible for implementing and overseeing sustainability aspects within the company. This report has also undergone an external assurance process by an independent party, PT Sejahtera Rambah Asia, based on the Board of Directors' approval. There were no conflicts of interest during the verification process conducted on 10–15 April 2025.[GRI 2-5][GRI 2-14]

Reporting Principles

The Sustainability Report for the fiscal year 2024 has been prepared with reference to the following frameworks, regulations, standards, and ESG rating indicators:

- Law No. 40 of 2007 concerning Limited Liability Companies;
- Financial Services Authority (OJK) Regulation No. 51/POJK.03/2017 on the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies;
- Global Reporting Initiative (GRI) Standards 2021;
- GRI 14: Mining Sector 2024;
- Sustainability Accounting Standards Board (SASB) Metals and Mining Standard 2021;
- MSCI (used as a reference for disclosure-related indicators);
- Sustainalytics (used as a reference for disclosure-related indicators);
- International Council on Mining and Metals (ICMM) (used as a reference for disclosure-related indicators).

By integrating the best international standards and complying with national regulations, PTVI is committed to presenting a relevant, accountable report that meets stakeholder expectations both locally and globally. This approach ensures that our ESG reporting aligns with best practices as well as applicable legal provisions in Indonesia and international standards.

GRI Reporting Principles

Accuracy
We report information that is correct and detailed, enabling the assessment of the Company's impacts.

Completeness
We provide sufficient information to evaluate the Company's impacts during the reporting period.

Balance
We present information in an unbiased manner, providing a fair representation of both positive and negative impacts.

Sustainability Context
We report our impacts within the broader context of sustainable development.

Clarity
We communicate information in a way that is accessible and understandable.

Timeliness
We disclose information on a regular schedule, ensuring it is available for decision-making.

Comparability
We select, compile, and report information consistently to enable analysis over time and comparisons with other companies.

Verifiability
We gather, record, compile, and analyze information in a manner that allows for verification of its quality.

Reporting Scope and Boundaries

This Sustainability Report presents a comprehensive overview of PTVI's operational activities across all business units. The primary data is sourced from our Sorowako operations, complemented by data from Bahodopi and Pomalaa.[GRI 2-2]

It is important to note that operations in Bahodopi and Pomalaa are currently in the construction phase. This affects the complexity and completeness of available data. Therefore, in certain sections of the report, data from these two locations is presented separately, with adjusted indicator coverage. Additionally, project costs related to Bahodopi and Pomalaa are not included in operational expenditure calculations, as they are still classified as capital expenditure (Capex) and recorded as fixed assets in the financial statements. Once these projects enter the operational phase, related data and costs will be fully consolidated. Further explanation regarding the scope and reporting boundaries for each material topic is provided in the Material Topics Disclosure section.

This report covers data and information from the period of January 1 to December 31, 2024, and represents our 14th Sustainability Report. Several restatements have been made to previous report data to ensure the accuracy and consistency of the information presented. These include adjustments to the following data sets:[GRI 2-3][GRI 2-4]

1. Domestic Component Level (TKDN)
An adjustment was made due to differences in data collection methods. In the 2024 report, local suppliers counted are those with a valid TKDN certification, which differs from the previous year when the calculation was based on the Domestic Production Level.

2. Procurement Value by Suppliers
An adjustment was made to align the calculation method with the approved Work Plan and Budget (RKAB).

3. Employees with Disabilities Data
The calculation was adjusted based on categorization in accordance with Law No. 8 of 2016 concerning Persons with Disabilities.

4.Employee data
The Board of Directors is excluded from the total employee data calculation.

PTVI greatly values all feedback and responses from readers of this Sustainability Report. We encourage readers and report users to share suggestions, feedback, opinions, or any other insights that could help improve the quality of our sustainability reporting.

To facilitate your participation, we have provided a Feedback Form at the end of this report. Your contributions are highly valuable and will play a key role in supporting the continuous improvement of our future reports.

Please submit completed feedback forms via email to:[GRI 2-3]
ptvicommunications@vale.com

Note for the Year 2023[POJK51 G.3]
In the 2023 reporting period, PTVI did not receive any formal feedback on its published sustainability report.

Material Topic Disclosure[GRI 3-2]

As outlined in the chapter "Sustainability Management in Creating Long-Term Value," the determination of material topics is carried out by considering the most relevant issues for PTVI and its stakeholders. Through a comprehensive double materiality assessment, PTVI has identified nine material topics that form the foundation for the development of the Company's sustainability strategy. These topics have been updated from the previous reporting period to ensure responsiveness to emerging issues, including the addition of new topics related to human rights, which we consider highly relevant and essential to support our operational sustainability.

To complement this explanation, the following table presents the alignment between PTVI's material topics and relevant disclosure indicators based on GRI and SASB standards, aimed at enhancing transparency and accountability through reference to globally recognized reporting frameworks.

Material Topics and GRI/SASB Disclosure References

Material Topic		Related Sustainability Topics	Specific Material Topic Disclosure	
			GRI	SASB
1	Good Corporate Governance	• Good Corporate Governance (GCG) • Cyber Security and Data Privacy	• GRI 204: Procurement Practices • GRI 205: Anti-corruption 2016 • GRI 206: Anti-competitive Behavior 2016 • GRI 207: Tax 2019 • GRI 301: Materials 2016 • GRI 415: Public Policy 2016 • GRI 418: Customer Privacy 2016 • GRI 14: Topic 14.22 Anti-corruption • GRI 14: Topic 14.23 Payments to governments	**Business Ethics and Transparency** EM-MM-510a.1 EM-MM-510a.2
2	Water and Effluent Management	• Water and Effluent Management • Environmental Management System • Responsible Production	• GRI 303: Water and Effluents	**Water Management** EM-MM-140a.1 EM-MM-140a.2
3	Waste Management (Hazardour and Non-Hazardous)	• Waste Management (B3 and Non-B3) • Residue Management • Environmental Management System • Responsible Production	• GRI 306: Waste and Waste 2016 • GRI 306: Waste 2020	**Waste & Hazardous Materials Management** EM-MM-150a.4 EM-MM-150a.5 EM-MM-150a.6 EM-MM-150a.7 EM-MM-150a.8 EM-MM-150a.9 EM-MM-150a.10

Material Topics and GRI/SASB Disclosure References

Material Topic		Related Sustainability Topics	Specific Material Topic Disclosure	
			GRI	SASB
				Tailings Storage Facilities Management EM-MM-540a.1 EM-MM-540a.2 EM-MM-540a.3
4	Emission and Energy Management	• Emissions and Energy Management • Climate Adaptation and Resilience • Environmental Management Systems • Responsible Production	• GRI 201: Economic Performance 2016 • GRI 302: Energy 2016 • GRI 305: Emissions 2016	**Greenhouse Gas Emissions** EM-MM-110a.1 EM-MM-110a.2 **Air Quality** EM-MM-120a.1 **Energy Management** EM-MM-130a.1
5	Biodiversity and Land Use	• Land Closure and Rehabilitation • Biodiversity • Environmental Management Systems • Responsible Production	• GRI 101: Biodiversity 2024 • GRI 304: Biodiversity 2016 • GRI 402: Labor/Management Relations 2016 • GRI 404: Training and Education 2016 • GRI 14: Topic 14.8 Closure and rehabilitation 2024	**Biodiversity Impacts** EM-MM-160a.1 EM-MM-160a.2 EM-MM-160a.3
6	Occupational Health and Safety	• Occupational Health and Safety	• GRI 403: Occupational Health and Safety 2018	**Occupational Health and Safety** EM-MM-320a.1

Material Topics and GRI/SASB Disclosure References

Material Topic		Related Sustainability Topics	Specific Material Topic Disclosure	
			GRI	SASB
7	Industrial Relations and Labour Rights	• Human Resource Development • Industrial Relations and Labor Rights	• GRI 202: Market Presence 2016 • GRI 401: Employment 2016 • GRI 402: Labor/Management Relations 2016 • GRI 404: Training and Education • GRI 405: Diversity and Equal Opportunity 2016 • GRI 406: Nondiscrimination 2016 • GRI 407: Freedom of Association and Collective Bargaining 2016 • GRI 408: Child Labor • GRI 409: Forced or Compulsory Labor • GRI 14: Topic 14.20 Freedom of Association and Collective Bargaining	**Labour Practices** EM-MM-310a.1 EM-MM-310a.2
8	Relationship with Communities and Community Involvement	• Community Engagement/Relations • Economic Impacts	• GRI 201: Economic Performance • GRI 203: Indirect Economic Impacts • GRI 410: Security Practices 2016 • GRI 413: Local Communities 2016 • GRI 14: Topic 14.9 Economic Impacts • GRI 14: Topic 14.10 Local Communities • GRI 14: Topic 14.12 Land and Resource Rights	
9	Community Human Rights	• Resettlement • Community Human Rights	• GRI 14: Topic 14.12 Rights to land and resources • GRI 14: Topic 14.25 Conflict-affected and high-risk areas	**Community Relations** EM-MM-210b.1 EM-MM-210b.2

Our Contribution to the Sustainable Development Goals

Through membership and sustainability initiatives: The Indonesia Business Council for Sustainable Development (IBCSD), PT Vale participates in designing business contribution documents to support the SDGs.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
2. Zero Hunger	End all forms of malnutrition, including by 2025 achieving internationally agreed targets for stunting and wasting in children under 5 years old, and meeting the nutritional needs of adolescent girls, pregnant and lactating women, and the elderly.	Stunting prevalence (short and very short) in children under five years old.	Reduce stunting rates in East Luwu District to 14% and create a healthy and productive young generation.	Launch the Stunting Prevention and Nutrition Fulfillment Movement (Genzi), focusing on nutrition education, healthy food provision, and nutrition action campaigns.	PT Vale distributed 309 healthy food packages to nine health centers, formed Peer Mentors, and organized a Nutritional Action Campaign with the Luwu Timur Youth Forum. Additionally, PT Vale collaborated with BKKBN to implement Healthy Kitchens to Combat Stunting and strengthen nutrition and health services in empowerment areas.
3. Good Health and Well-being	Achieve universal health coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable medicines and vaccines for all.	Essential health services coverage.	Employee participation in BPJS Health.	Mandatory participation in BPJS Health for PT Vale employees and encourage contractors, partners, and vendors to register their employees with BPJS Health.	• Achieve 100% BPJS Health membership for PT Vale employees. • Achieve 100% BPJS Health membership for contractor employees, partners, and vendors.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
5. Gender Equality	Reduce all forms of discrimination against women.	Availability of legal frameworks that promote, set, and monitor gender equality and eliminate discrimination based on gender.	Increase the number of female employees and employees with disabilities.	• Implement the Diversity, Equity, and Inclusion (DEI) Charter. • Recruit more female employees and employees with disabilities, considering the type of work.	• Conduct DEI Charter socialization to employees and stakeholders. • Increase the proportion of female employees to 11.6% by 2024. • Achieve 2% disability employee representation by 2024.
	Building the resilience of poor and vulnerable communities, and reducing their susceptibility to climate-related extreme events as well as economic, social, environmental, and disaster-related shocks.	Proportion of women in managerial positions.	Providing equal opportunities and support for female employees to assume managerial roles.	Implementing capacity-building programs to enhance employees' knowledge, skills, and competencies in line with the organization's needs and evolving business challenges.	Achieved a 10.9% representation of women in managerial positions, with 18 female employees in those roles—an outcome that underscores the Company's commitment to gender equality and the empowerment of women in the workplace.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
7. Affordable and Clean Energy	Expand infrastructure and enhance technology for providing modern and sustainable energy services to all developing countries, particularly least developed countries, small island developing states, and developing countries.	Installed renewable energy capacity in developing countries (in watts per capita).	Renewable energy for PT Vale operations with 100% clean energy generation to achieve energy independence by 2030.	Optimize clean energy, power stability, waste heat utilization, solar power utilization, and fuel conversion.	By 2024, 30.6% of PT Vale's total energy consumption comes from renewable energy sources, such as three hydroelectric plants and B35 biodiesel, which not only supply the majority of operational electricity needs but demonstrates the company's commitment to clean energy transition and sustainability.
10. Reduced Inequality	Ensure equal opportunities and reduce inequality in outcomes, including by eliminating discriminatory laws, policies, and practices, and promoting appropriate legislation, policies, and actions.	Proportion of human rights violations addressed.	Raise awareness of human rights, including gender diversity and inclusivity, among leaders (supervisors and above) and employees.	• Conduct human rights awareness campaigns and training for employees. • Empower indigenous communities through integrated community empowerment and development programs.	Preserve local cultures through collaboration with the local Mekongga community, including the construction of a pavilion at the Mekongga King's tomb to support traditional activities.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
11. Sustainable Cities and Communities	Significantly reduce the number of deaths and the number of people affected by disasters, and substantially decrease the economic losses in relation to global GDP due to disasters, including water-related disasters, with a focus on protecting the poor and vulnerable.	Number of deaths, missing persons, and people affected by disasters per 100,000 people.	Be part of the efforts to accelerate the recovery of disaster-affected areas.	Deploy emergency response teams to disaster areas and provide assistance to affected regions.	Actively provide disaster relief.
12. Responsible Consumption and Production	Manage chemicals and waste throughout their life cycle in an environmentally sound manner, and significantly reduce chemical pollution and waste to air, water, and soil to minimize adverse impacts.	• Percentage reduction in ozone-depleting substances from baseline. • (a) Hazardous waste generated per capita; and (b) Proportion of hazardous waste handled/treated based on the type of handling/treatment.	• Gradually reduce the consumption of ozone-depleting substances to zero, compared to the baseline. • Reduce hazardous waste per capita and increase the proportion of hazardous waste that is safely utilized or treated according to regulations.	• Discontinue the use of HCF-22 freon and replace it with alternative refrigerants with zero Ozone Depletion Potential (ODP), such as R32. • Improve operational efficiency to reduce hazardous waste, and develop facilities and partnerships for its utilization through appropriate treatment.	• Discontinue the use of HCF-22 (CHF_2Cl) refrigerant and transition to more environmentally friendly alternatives. Currently, most refrigerant in use is R32, which has an Ozone Depletion Potential (ODP) of 0. • A total of 1,453 tons of hazardous and toxic waste (B3 waste) have been successfully repurposed, underscoring the company's commitment to reducing its environmental impact.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
	Targeting substantial reductions in waste production by 2030 through prevention, reduction, recycling, and reuse.	Amount of waste recycled.	Reduce the volume of waste disposed into the environment by increasing the reuse rate of non-hazardous waste (non-B3), as well as supporting the implementation of circular economy principles throughout the operational supply chain.	Promote innovation in the reuse of slag as construction material and mine road surfacing.	A total of 377,964.29 tons of slag has been repurposed as construction material and mine road surfacing, demonstrating the company's efforts to support the circular economy and reduce industrial waste.
	Encouraging companies, particularly large and multinational corporations, to adopt sustainable practices and integrate sustainability information into their reporting cycles.	• Number of companies publishing their sustainability reports. • Number of companies implementing SNI ISO 14001 certification.	• Sustainability reports published regularly. • ISO 14001:2015 certification for Environmental Management Systems.	• Standardize reporting according to GRI and POJK No. 51/POJK.03/2017. • Conduct periodic ISO 14001:2015 assessments.	• Publish the Sustainability Report annually since 2011. • Renew ISO 14001:2015 certification.
	Support developing countries in strengthening their scientific and technological capacity to transition to more sustainable consumption and production patterns.	Installed renewable energy generation capacity (in watts per capita).	Renewable energy for PT Vale operations with 100% clean energy generation to achieve energy independence by 2030.	Optimize clean energy, power stability, waste heat utilization, solar energy utilization, and fuel conversion.	30.6% of the energy sources used in operations in 2024 are from renewable energy sources.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
13. Climate Action	Integrate climate change mitigation measures into national policies, strategies, and planning.	• Greenhouse gas (GHG) inventory, monitoring, reporting, and verification of GHG emissions reported in the Biennial Update Report (BUR) and National Communications. • Amount of GHG emissions per year.	• Move towards low-carbon and carbon-neutral operations by 2050. • Achieve a 33% reduction in GHG emissions by 2030. • 100% clean energy production to achieve energy independence by 2030.	• Optimize energy consumption in the supply chain, replace fuels with lower-carbon alternatives, and electrify heavy mining and supporting equipment. • Convert fossil fuels to renewable energy sources, rehabilitate pre-mining areas, and conduct cross-border reforestation.	Not using B30 biodiesel and fully switch to B35.
16. Peace, Justice, and Strong Institutions	Significantly reduce corruption and bribery in all forms.	Anti-Corruption Behavior Index (ACBI).	Increase awareness of ethics and continuous improvement.	Conduct campaigns and training on anti-corruption and ethics & behavior. Provide Vale Reporting Channels to report allegations and complaints related to bribery, extortion, and nepotism.	Conduct the following activities: • Conduct Ethics & Compliance, Anti-Bribery, and Anti-Corruption training for new employees. • Anti-Bribery & Corruption awareness for all employees and leadership. • Raise awareness about reporting channels via posters, banners, and e-flyers. • Conduct online ethics training for all PT Vale employees.

SUSTAINABLE DEVELOPMENT GOALS	BAPPENAS METADATA		PT VALE'S SUPPORT		
	Target	Indicator	Target	Strategy	Achievements
17. Partnerships for the Goals	Strengthen the mobilization of domestic resources, including through international support to developing countries, to enhance domestic capacity in tax collection and other revenue generation.	Proportion of domestic budget funded by domestic taxes.	Direct and indirect contributions to local governments.	Taxes and non-tax revenues paid to the Luwu Timur District government, including local revenue, transfer income, and other legitimate regional income.	TTaxes and non-tax revenues paid to the Luwu Timur District government, including local revenue, transfer income, and other legitimate regional income.

Data Table

06 About PT Vale Indonesia Tbk

Business Scale

Description	Unit	2024	2023*	2022*
Number of Workers				
Employees of PT Vale Indonesia Tbk	Person	3,038	3,018	2,929
Production Volume				
Nickel Production in Matte	Ton	71,311	70,728	60,090
Business Revenues				
Total Revenue	Thousand US$	990,388	1,232,263	1,179,452
Net Profit for the Current Year		57,761	274,334	200,401
Total Capitalization				
Total Liabilities	Thousand US$	443,752	361,462	303,336
Total Equity		2,732,776	2,564,537	2,354,780
Total Assets		3,176,528	2,925,999	2,658,116

*Restatement: Directors excluded from total employee calculation

Domestic Component Level (TKDN)

Description	2024*	2023**	2022***
TKDN Achievement	25.37%	36.04%	55.82%

*2024 data is the result of self-assessment with the same method, but the verification process is still ongoing.
**Restatement of 2023 data: Results after verification
***Restatement of 2024 data: Results after verification

Economic Value is Generated and Distributed (Thousand US$)

Nickel Production Realization in Matte					
Description	2024	2023	2022	%	
	1	2	3	1:2	2:3
Production	71,311	70,728	60,090	0.8	17.7
Sale	72,625	70,108	60,960	3.6	16.7

07 Sustainability Management in Growing Long-Term Value

Supplier Involvement Proportion

Description	2024		2023		2022	
	Total	%	Total	%	Total	%
Local	151	15%	158	17%	301	11%
National	632	62%	629	66%	2,051	74%
International	235	23%	163	17%	432	16%
Total	1,018	100%	950	100%	2,784	100%

Supplier Procurement Value (US$) [GRI 204-1]

Description	2024		2023		2022	
	Jumlah	%	Jumlah	%	Jumlah	%
Local	116,623,037.23	15%	96,389,658.55	11%	128,307,342.32	18%
National	611,153,381.01	77%	627,139,936.48	74%	516,979,943.74	71%
International	68,768,362.08	9%	119,703,373.33	14%	78,339,538.99	11%
Total	796,544,780.33	100%	843,232,968.36	100%	723,626,825.04	100%

08 Leading Through Ethical Governance

Handling of Violation Reports Through Vale Whistleblower Channel (VWC)

Description	2024	2023	2022
Number of Reports Received	23	34	27
Number of Reports Followed Up	17	30	20
Percentage of Valid Reports	74%	94%	74%

Volume of Energy Consumption in Organizations (GJ) [GRI 302-1][POJK51-F.6] [SASB EM-MM-130a.1]

Energy Sources (a, b)	Allocation (c)	Unit	2024	2023	2022
Non Renewable					
Coal	Drying Kilns/*Tanur Pengering*	GJ	5,380,753.10	4,477,155.00	3,221,576.00
	Reduction Kilns – Reductant/*Tanur Reduksi – Reductant*	GJ	3,263,552.46	3,399,804.00	3,226,794.00
	Reduction Kilns – Combustion/*Tanur Reduksi – Combustion*	GJ	2,611,034.77	1,761,553.00	1,685,919.00
	Total Firing Kilns/*Total Tanur Pembakar*	GJ	11,255,625.11	9,638,512.00	8,134,288.00
High Speed Diesel (HSD)	Thermal Generators/*Pembangkit Thermal*	GJ	1,349.89	9,269.00	2,506.00
	Steam Boilers/*Ketel Uap*	GJ	6,631.87	7,740.00	6,804.00
	PP Dryer Furnaces & Others/*PP Tanur Pengering & Lainnya*	GJ	370,522.86	335,981.00	314,318.00
	Reduction Kilns/*Tanur Pereduksi*	GJ	29,650.21	40,555.00	47,087.00
	Refining – 78% Nickel/*Pemurnian – Nikel 78%*	GJ	38,950.98	40,571.00	36,775.00
	Heavy Vehicles/*Kendaraan Berat*	GJ	1,700,685.55	1,593,558.00	1,409,259.00
	Light Vehicles, Trucks, and Others/ *Kendaraan Ringan, Truk dan Lainnya*	GJ	108,137.52	216,462.00	119,638.00
	Total	GJ	2,255,928.89	2,244,136.00	1,936,386.00

Energy Sources (a, b)	Allocation (c)	Unit	2024	2023	2022
High Sulphur Fuel Oil (HSFO)	Steam Boilers/*Ketel Uap*	GJ	30,696.12	24,928.00	11,811.00
	Drying Kilns/*Tanur Pengering*	GJ	1,202,834.46	1,600,666.00	1,980,456.00
	Reduction Kilns/*Tanur Pereduksi*	GJ	8,097,404.44	8,669,728.00	7,088,557.00
	Total	GJ	9,330,935.01	10,295,322.00	9,080,824.00
Gasoline	Light Vehicles/*Kendaraan Ringan*	GJ	7,367.19	5,784.00	6,625.00
Renewable					
Hydroelectric Power Plants	Processing Plant/*Pabrik Pengolahan*	GJ	8,935,798.81	8,791,124.00	7,797,981.00
Biodiesel B30		GJ	–	150,766.00	580,916.00
Biodiesel B35		GJ	789,575.11	609,554.00	N/A
Non-Renewable + Renewable Energies (e)			31,785,655.01	30,974,879	26,956,105

Energy Intensity [GRI 302-3][POJK51-F.6]

Description	Unit	2024	2023	2022
Nickel Production Amount	Ton	71,310.68	70,728.00	60,090.00
Amount of Energy Used	GJ	31,785,655.01	30,974,879.00	26,956,105.00
Energy Intensity	GJ/Ton Ni	445.73	437.90	448.60

Reduction of Energy Consumption [GRI 302-4]

Energy Sources	Unit	2024	2023	Volume Change	Percentage Change
HSFO	Barrel	1,509,299.55	1,654,992.70	-145,693.15	-8.80%
HSD	Liter	68,261,137.58	68,057,320.00	203,817.58	0.30%
Batu Bara	Ton	403,351.64	347,362.00	55,989.64	16.12%

GHG Emission Intensity Value Calculation Results [GRI 305-1] [GRI 305-2] [GRI 305-4] [POJK51-F.11][SASB EM-MM-110a.1]

Description	Unit	2024	2023	2022
Scope 1	Ton CO_2eq	2,132,973.00	2,029,486.00	1,745,817.00
Scope 2	Ton CO_2eq	2,769.00	2,827.00	2,735.00
Total	Ton CO_2eq	2,135,742.00	2,032,313.00	1,748,552.00
Nickel Production Amount	Ton	71,310.68	70,728.00	60,090.00
GHG Emission Intensity	Ton CO_2eq/Ton	29.95	28.73	29.10

Results of Measurement and Calculation of SO_2 Emission Intensity [GRI 305-7] [POJK51-F.11][SASB EM-MM-120a.1]

Description	Unit	2024	2023	2022
Nickel Production Amount	Ton	71,311	70,728	60,090
Amount of SO_2 Emissions	Ton SO_2eq	52,172.00	53,188.00	43,377.00
Emission Intensity	Ton SO_2eq/Ton Ni	0.73	0.75	0.72
SO_2 Quality Standard		0.80	0.80	0.80

Results of Measurement and Calculation of Particulate Emission Intensity [GRI 305-7] [POJK51-F.11][SASB EM-MM-120a.1]

Description	Unit	2024	2023	2022
Nickel Production Amount	Ton	71,311	70,728	60,090
Amount of Particulates Emitted	Ton Particulates	879	600	681
Particulate Emission Intensity	Ton Particulates/ Ton Ni	0.012	0.007	0.009

Water Consumption Intensity Value [GRI303-5][SASB EM-MM-140a.1]

Description	Unit	2024	2023	2022
Nickel Production Amount	Ton	71,310.68	70,728.00	60,090.00
Water Usage Volume	m^3	8,498,939.00	7,561,108.00	8,519,762.00
	Megaliter	8,498.94	7,561.10	8,519.80
Water Consumption Intensity	m^3/Ton Ni	118.35	106.90	141.80
	Megaliter/Ton Ni	0.12	0.11	0.14

Water Disposal Based on Disposal Destination [GRI 303-4]

Disposal Destination	Unit	2024
Surface water		
Lake Matano	m^3	25,639,690
Lake Mahalona	m^3	20,648,522
Salo Lamunto River	m^3	3,705,430
Petea River	m^3	50,716,129
Total water discharge		**100,709,801**

Waste Production [GRI 306-3]

	Activity	Types of Waste	Unit	2024	2023	2022	2021
Hazardous Waste	Production	Used oil and grease	Ton	1,135.5	1,094.5	1,079.7	1,102.0
	Production	Used batteries and accumulators	Ton	30.4	56.2	53.6	54.6
	Production	Garbage containing heavy metals	Ton	934.9	488.4	356.8	2.5
	Production	Asbestos waste	Ton	2.0	5.8	3.8	3.5
	Production	Health care waste (incinerator ash)	Ton	3.8	3.6	4.1	4.3
	Production	Waste contaminated with oil and grease	Ton	525.3	295.9	292.1	360.1
	Production	Special waste	Ton	54.5	62.5	45.4	47.4
	Production	Medical waste	Ton	10.21	34.1	29.8	29.8
	Production	Total Hazardous Waste	Ton	2,696.6	2,041.0	1,865.3	1,604.2
Non-Hazardous Waste	Mining	*Topsoil*	WMT	371,243.67	468,061.40	495,832.20	459,314.20
	Mining	*Overburden*	WMT	36,012,124.64	30,112,378	29,607,650	35,979,568
	Production	Furnace slag	Ton	4,212,058	4,131,817	3,533,347	3,739,088
	Production	Converter slag	Ton	380,417	409,568	377,804	417,906
	Production	Total	Ton	4,592,475	4,541,385	3,911,151	4,156,994
	Supporting	Non-industrial household waste generated	Ton	1,461	875	670	1,001
	Supporting	Separated non-industrial household waste	%	17	15.1	15.2	10.2
	Supporting	Industrial household waste produced	Ton	5,906	6,378	6,295	3,492
	Supporting	The resulting scrap metal waste	Ton	6,347	5,786	7,497	5,229

Effluent Quality Measurement Results 2024 [POJK51 F.13]

Location	Processed Volume (m^3)	Parameters, Quality Standards and Measurement Results				
		TSS	Jumlah Cr	Cr6+	Fe	Ni
		<200 ppm	0.5 ppm	0.1 ppm	5 ppm	0.5 ppm
Petea East	11,900,854	11.13	0.09	0.02	0.04	0.01
Petea West	13,099,563	10.84	0.08	0.02	0.04	0.01
Petea Far East	38,815,275	11.84	0.07	0.01	0.04	0.01
Lorraine	1,872,745	2.91	0.03	0.005	0.026	0.011
Kathryn	7,175,570	7.09	0.08	0.01	0.42	0.03
Lamoare Creek A	3,184,204	5.12	0.09	0.01	0.01	0.01
Lamangka 1	6,494,250	4.23	0.06	0.02	0.02	0.02
Lamangka 2	4,866,408	6.76	0.14	0.01	0.02	0.02
Lamangka 3	8,862,665	18.17	0.19	0.01	0.04	0.02
Petea Washing Pad	307,608	11.59	0.07	0.01	0.07	0.03
Petea D3 West	3,705,430	9.01	0.09	0.02	0.03	0.01
Total	**100,284,572**					

Area of Disturbed and Rehabilitated Land (Ha) [GRI 304-3] [GRI 14.8.6]

Year	Total Accumulated Area of Disturbed Area Not Yet Rehabilitated at the Beginning of the Year	Area Disturbed in Current Year	Area of Land Rehabilitated in Current Year	Accumulation of Unrehabilitated Land Area at the End of the Year
	1	2	3	1+2-3
2024	2,014.1	177.7	178.9	2,104.3
2023	1,958.4	230.2	224.4	1,964.2
2024	2,054.1	199.8	295.4	1,958.4

IPPKH, Area and Percentage of Protected Areas [GRI 304-1][SASB EM-MM-210a.1][SASB EM-MM-160a.3]

Block	IPPKH Number	Protected Area Area (Ha)	Percentage	Proven Reserves (Ha)	Estimated Reserves (Ha)
Sorowako	SK No.645/MenLHK/SetJen/PLA.0/12/2018	8,199	41%	1.986	1,462
	SK No.866/MenLHK/SetJen/PLA.o/10/2021	3,730			
	SK No.850/MenLHK/SetJen/PLA.0/10/2021	17,239			
Bahodopi	SK No.341/MenLHK/SetJen/PLA.0/5/2019	2,143	68%	0	0
	SK No.5/MenLHK/SetJen/PLA.0/1/2022	2,493			
Pomalaa	SK No.238/1/KLHK/2021	11,439	46%	440	1,011

List of Protected Fauna Species Based on the IUCN Red List [GRI 304-4]

Local Name	Species Name	Conservation Category
Monyet Digo	*Macaca ochreata*	Vulnerable
Rusa Timor	*Rusa timorensis*	Vulnerable
Anoa	*Bubalus sp.*	Endangered
Babi Hutan	*Sus celebensis*	Near threatened
Cabai Panggu Kelabu	*Dicaeum celebicum*	Least concern
Cabai Panggu Kuning	*Dicaeum aureolimbatum*	Least concern
Elang Bondol	*Haliastur indus*	Least concern
Elang Alap Kecil	*Accipiter nanus*	Near Threatened
Elang Alap Nipon	*Accipiter gularis*	Least concern
Elang Hitam	*Ictinaetus malayensis*	Least concern
Alap-alap Sapi	*Falco moluccensis*	Least concern
Elang Alap Ekor Total	*Accipiter trivirgatus*	Least concern
Elang Ular Sulawesi	*Spilornis rufipectus*	Least concern
Elang Tiram	*Pandion haliaetus*	Least concern
Kadalan Sulawesi	*Rhamphococcyx calyorhynchus*	Vulnerable
Tiong Lampu Sulawesi	*Coracias temminckii*	Least concern
Kepudang Sungu Biru	*Coracina temminckii*	Least concern
Udang Merah Sulawesi	*Ceyx fallax*	Near Threatened
Pelatuk Kelabu Sulawesi	*Mulleripicus fulvus*	Least concern
Julang Sulawesi	*Rhyticeros cassidix*	Vulnerable

Local Name	Species Name	Conservation Category
Kangkareng Sulawesi	*Rhabdotorrhinus exarhatus*	Vulnerable
Serindit Sulawesi	*Loriculus stigmatus*	Least concern
Tir-kiring Bukit	*Prioniturus platurus*	Least concern
Raja Perling Sulawesi	*Basilornis celebensis*	Least concern
Maleo Senkawor	*Macrocephalon maleo*	Endangered

List of Protected Flora Species Based on the IUCN Red List Daftar Spesies Flora Dilindungi Berdasarkan Daftar Merah IUCN [GRI 304-4]

Local Name	Species Name	Conservation Category
Agathis	*Agathis dammara*	Vulnerable
Eboni	*Diospyros celebica*	Vulnerable
Manggis Hutan	*Garcinia celebica*	-
Jambu-jambu	*Kjellbergiodendron celebicum*	-
Kayu asa	*Lithocarpus celebicus*	Least concern
Buri	*Weinmannia devogelii*	-
Angsana	*Dillenia serrata*	Least concern
Bayur	*Pterospermum celebicum*	Least concern
Belimbing Majo	*Sarcotheca celebica*	-
Cenrana	*Pterocarpus indicus*	Endangered
Kantong Semar Maksimum	*Nepenthes maxima*	-
Kantong Semar Bersungut	*Nepenthes tentaculata*	Least concern
Kantong Semar	*Nepenthes petiolata*	Vulnerable
Beluang	*Stemonurs celebicus*	-
Lokomomo	*Deplanchea bancana*	Least concern

Local Name	Species Name	Conservation Category
Kayu Mata Kucing	*Hopea celebica*	Vulnerable
Dengen	*Dillenia serrata*	Least concern
Kumea	*Manilkara fasciculata*	Vulnerable
Knema	*Knema matanesis*	Least concern

Location and Area of Watershed Rehabilitation by PT Vale in 2024

South Sulawesi Batch 1		
Regency	**Watershed**	**Area (Ha)**
East Luwu	Labongko Watershed, Kalaena Watershed, and Pongkeru Watershed	1,490.00
North Luwu	Rongkong Watershed	895.00
Luwu	Tomboe Watershed, Keppe Watershed, Larompong Watershed, and Lamasi Watershed	1,101.00
Tana Toraja	Saddang Watershed	1,190.00
North Toraja	Saddang Watershed dan Paremang Watershed	329.00
Enrekang	Saddang Watershed	200.00
Pinrang	Saddang Watershed	450.00
Soppeng	Bila Walanae Watershed	400.00
Bone	Bila Walanae Watershed dan Matuju Watershed	1,735.00
Barru	Lisu Watershed	250.00
Maros	Bila Walanae Watershed	1,000.00
Gowa 1	Jeneberang Watershed	100.00

South Sulawesi Batch 1		
Regency	**Watershed**	**Area (Ha)**
Gowa 2	Jeneberang Watershed, Kelara Watershed, dan Tangka Watershed	735.00
Takalar	Pamukkulu Watershed	125.00
Total		**10,000.00**

West Java		
Regency	**Watershed**	**Area (Ha)**
Sumedang	Cipunagara Watershed	191.00
Pangandaran	Cikembulang Watershed and Cikeuleuweung Watershed	35.00
Tasikmalaya	Cisaringi, Cipatujah I, Cikamunding, Cipanyerang, Cipalireman, Cilanglah, Cilangiah I, Ciwulang, Cimedang, Cipacor, Cipadabumi, and Cipadabumi II watersheds	209.00
Total		**435.00**

South Sulawesi Batch 2		
Regency	**Watershed**	**Area (Ha)**
Barru	Lisu (South) and Malusetasi	212.00
Bone	Pangkajene and Baleng	249.00
Enrekang	Saddang (South)	556.00
Gowa	Tangka	79.00
Jeneponto	Cikoang	66.00
Kota Pare-Pare	Karajae	58.00

South Sulawesi Batch 2		
Regency	**Watershed**	**Area (Ha)**
Luwu	Suli (West and South), Suso and Battang	605.00
Luwu Timur	Kalaena (West)	1,350.00
Pinrang	Saddang (West)	427.00
Sidenreng Rappang	Sawitto – Kariago – Rappang	134.00
Tana Toraja	Saddang (East)	214.00
Wajo	Gilireng	280.00
Total		**4,230.00**

Central Sulawesi Batch 1		
Regency	**Watershed**	**Area (Ha)**
Palu	Palu (North)	17.00
Tojo Una-Una	Bongka	2,293.00
Total		**2,310.00**

Bali		
Regency	**Watershed**	**Area (Ha)**
Klungkung	Tabuana	75.00
Total		**75.00**

10 Human Resource Excellence for Sustainable Growth

Number and Percentage of Local Workers

Description	Unit	2024	2023	2022
Number of Employees	Person	3,038	3,018*	2,929*
Number of Local Employees	Person	2,516	2,589	2,550
Percentage of Local Employees	%	83	86	87

*Restatement: Directors are excluded from the total employee count

Number and Percentage of Employees by Gender, Persons with Disabilities, and Local Workers [GRI 405-1]

Description		2024		2023*		2022*	
		Total	%	Total	%	Total	%
Gender	Pria	2,689	88.5	2,710	89.8	2,674	91.3
	Wanita	352	11.6	308	10.2	255	8.7
	Total	3,038	100	3,018	100	2,929	100
Persons with Disabilities		70	2.3	64	2.1	58	1.9
Local Workers		2,516	82.8	2,589	85.8	2,550	87.1

*Restatement: Adjustment of calculation with categorization of Law no.8 of 2016

Number of Employees by Position and Gender [GRI 405-1]

Position and Gender	2024			2023			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Management	30	4	34	24	4	28	17	2	19
General Manager or Specialist	112	13	125	104	11	115	83	10	93
Senior Staff or Manager	473	102	575	402	79	481	358	64	422
Staff	685	155	840	691	131	822	680	102	782
Non-Staff	1.386	78	1.464	1.489	83	1.572	1.536	77	1.613
Total	2.686	352	3.038	2.710	308	3.018	2.674	255	2.929

Number of Employees of PT Vale Indonesia Tbk by Age and Gender [GRI 405-1]

Age Group and Gender	2024			2023			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
> 50 Years	577	28	605	539	24	563	555	17	572
30-50 Years	1,980	254	2,234	2,059	228	2,287	2,042	210	2,252
< 30 Years	129	70	199	112	56	168	77	28	105
Total	2,686	352	3,038	2,710	308	3,018	2,674	255	2,929

Number of Employees of PT Vale Indonesia Tbk Based on Education Level and Gender [GRI 405-1]

Educational Level and Gender	2024			2023			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Doctoral Degree | Ph.D	8	1	9	1	-	1	1	-	1
Master's Degree	68	26	94	56	22	78	51	16	67
Bachelor's Degree	769	219	988	700	176	876	607	133	740
Diploma	301	64	365	276	57	333	284	58	342
Senior High School	1,526	42	1,568	1,657	53	1,710	1,705	48	1,753
Junior High School	14	-	14	20	-	20	26	-	26
Total	2,686	352	3,038	2,710	308	3,018	2,674	255	2,929

Number of Employees by Employment Status and Gender [GRI 405-1]

Employment Status and Gender	2024			2023			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Permanent Employee	2,607	322	2,929	2,653	280	2,933	2,621	252	2,873
Non-permanent Employee	79	30	109	57	28	85	53	3	56
Total	2,686	352	3,038	2,714	309	3,018	2,674	255	2,929

Number of Employees Based on Placement Area and Gender

Placement Area and Gender	2024			2023			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jakarta Head Office	58	35	93	45	26	71	45	23	68
Makassar Representative Office	5	3	8	3	2	5	4	2	6
Sorowako	2,477	266	2,743	2,550	243	2,793	2,625	230	2,855
Pomalaa	71	29	100	56	21	77	15	3	18
Bahodopi	74	19	93	55	16	71	0	0	0
Palu	1	0	1	1	0	1	0	0	0
Total	2,686	352	3,038	2,710	308	3,018	2,674	255	2,929

Number of Employees Who Are Not Direct Workers [GRI 2-8]

Year	Jakarta		Makassar		Sorowako		Pomalaa		East Bungku	
	Male	Female	Male	Female	Male	Female	Male	Female	Pria	Wanita
2024	13	3	4	2	7,659	1,040	0	0	0	0
2023	3	2	0	0	8,680	1,028	0	0	0	0
2022	3	1	0	0	7,420	800	0	0	0	0

Maternity leave [GRI 401-3]

Description	Unit	2024	2023	2022
The total number of employees entitled to maternity leave	Person	209	195	180
Total number of employees taking maternity leave	Person	7	4	6

Description	Unit	2024	2023	2022
Total number of employees who returned to work in the reporting period after maternity leave ended	Person	7	4	6
Total number of employees returning to work after maternity leave ended, who were still employed 12 months after returning to work	Person	7	4	6
The rate of employees returning to work after taking maternity leave	%	100%	100%	100%
The rate of employees returning to work and being retained after taking maternity leave	%	100%	100%	100%

Number of Employees Who Underwent Performance Reviews by Gender and Category

Employee Categories	2024		2023		2022	
	Male	Female	Male	Female	Male	Female
Senior General Management	37	5	28	5	21	3
General Management	112	13	104	11	82	8
Senior Staff	474	102	402	79	360	62
Staff	689	153	691	131	682	101
Non-staff	1,415	78	1,489	83	1,541	78
Jumlah	1,493		1,572		1,619	

Occupational Health and Safety Statistics [GRI 403-9]

Indicator	2024			2023			2022		
	Sorowako	Bahodopi	Pomalaa	Sorowako	Bahodopi	Pomalaa	Sorowako	Bahodopi	Pomalaa
Lost Time Injuries	1	0	0	3	0	0	2	0	0
First Aid Injuries	20	2		10	0	1	13	0	0
Near Miss Unsafe Action, Unsafe Condition	59	6	1	62	0	0	70	0	0
Days Lost due to Accident (Severity Rate)	400	0	0	0.51	0	0	254.14	0	0
Total Accident Rate (Frequency Rate)	0.30	0.27	0	0.31	0	0	0.68	0	0

Number and Rate of Occupational Accidents [GRI 403-9]

Occupational Accident Level	Sorowako		Bahodopi		Pomalaa	
	Total	Rate	Total	Rate	Jumlah	Tingkat
2024						
Minor	15	0.51	2	0.55	1	0.39
Moderate and Severe	2	0.07	0	0	0	0
Fatal	0	0	0	0	0	0
Total	17	0.57	2	0.55	1	0.39
2023						
Minor	0	0	0	0	0	0
Moderate and Severe	3	0.25	0	0	0	0
Fatal	0	0	0	0	0	0

Occupational Accident Level	Sorowako		Bahodopi		Pomalaa	
	Total	Rate	Total	Rate	Jumlah	Tingkat
Total	3	0.25	0	0	0	0
2022						
Minor	0	0	0	0	0	0
Moderate and Severe	6	0.25	0	0	0	0
Fatal	1	0	0	0	0	0
Total	7	0.25	0	0	0	0

Distribution of PPM Fund Assistance

Programs and Activities	2024				2023				2022			
	Sorowako	Bahodopi	Pomalaa	Jumlah	Sorowako	Bahodopi	Pomalaa	Jumlah	Sorowako	Bahodopi	Pomalaa	Jumlah
Education	142,608	25,430	-	168,038	151,579	92,010	5,004	248,593	116,670	0	4,038	15,705
Health	255,729	38,817	-	294,546	408,288	143,181	73,070	624,539	943,347	179,242	4,058	1,126,647
Real Income Level	181,517	176,671	57,448	358,188	348,902	158,310	188,432	695,644	1,069,078	97,000	7,159	1,076,334
Economic Independence	832,568	49,929	-	882,497	963,783	-	12,780	976,573	522,478	-	-	522,478
Socio-cultural	320,524	27,472	-	347,996	210,895	221,654	61,509	494,058	156,075	62,546	143,430	232,964
Social Environment	48,250	130,938	-	179,188	106,903	112,946	-	219,849	18,445	4,581	13,687	36,713
Community Institutions	272,149	16,041	-	288,190	169,821	74,053	-	243,874	252,885	-	-	252,885
Infrastructure Development that Supports PPM	1,244,470	179,637	-	1,424,107	1,321,323	233,437	513,469	2,068,229	2,264,607	389,234	132,609	2,786,450
Total	**3,297,815**	**644,936**	**57,448**	**3,942,750**	**3,681,504**	**1,035,591**	**854,469**	**5,571,359**	**5,343,585**	**732,603**	**304,977**	**6,381,165**

POJK Index[POJK G.4]

The POJK index in this report is compiled based on:

- Financial Services Authority Regulation (POJK) Number 51/POJK.03/2017
- Circular Letter of the Financial Services Authority (SEOJK) Number 16/SEOJK.04/2021

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			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
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	303-3 Water withdrawal	98, 99				14.7.4
	303-4 Water discharge	98, 182				14.7.5
	303-5 Water consumption	99, 182				14.7.6

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	109, 110, 185				
	304-2 Significant impacts of activities, products and services on biodiversity	186				
	304-3 Habitats protected or restored	185				
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	186-187				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	94, 181				14.1.5
	305-2 Energy indirect (Scope 2) GHG emissions	94, 181				14.1.6
	305-3 Other indirect GHG emissions (Scope 3)	94				14.1.7
	305-4 GHG emissions intensity	94, 181				14.1.8
	305-5 Reduction of GHG emissions	94-95				14.1.9
	305-6 Emissions of ozone-depleting substances (ODS)	95				
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	96, 181				14.3.2
GRI 306: Effluent and Waste 2016	306-1 Water discharge by quality and destination	16-18				
	306-2 Waste by type and disposal method	101, 104				
	306-3 Significant spills	101, 102, 104, 183				14.15.2
	306-4 Transport of hazardous waste	19				
	306-5 Water bodies affected by water discharges and/or runoff	16				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	101				14.5.2
	306-2 Management of significant waste-related impacts	101, 104				14.5.3
	306-3 Waste generated	101, 102, 104, 183				14.5.4
	306-4 Waste diverted from disposal	101				14.5.5
	306-5 Waste directed to disposal	101				14.5.6
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	125				14.17.3
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	121, 123				14.17.4
	401-3 Parental leave	193, 121				14.17.5 14.21.3
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	112, 117				14.8.2 14.17.3

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	127				14.17.4
	403-2 Hazard identification, risk assessment, and incident investigation	128				14.17.5 14.21.3
	403-3 Occupational health services	129-130				14.16.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	128				14.16.5
	403-5 Worker training on occupational health and safety					14.16.6
	403-6 Promotion of worker health	131				14.16.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	129				14.16.8
	403-8 Workers covered by an occupational health and safety management system	127				14.16.9
	403-9 Work-related injuries	130, 132, 195				14.16.10
	403-10 Work-related ill health	130				14.16.11
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	122				14.17.7 14.21.4
	404-2 Programs for upgrading employee skills and transition assistance programs	122				14.8.3 14.17.8
	404-3 Percentage of employees receiving regular performance and career development reviews	122				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	116, 120, 191-192				14.21.5
	405-2 Ratio of basic salary and remuneration of women to men	124				14.21.6
GRI 406: Non-discrimi-nation 2016	406-1 Incidents of discrimination and corrective actions taken	120				14.21.7
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the ight to freedom of association and collective bargaining may be at risk	63, 117				14.20.3
GRI 408: Pekerja anak 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	63, 119				14.18.2
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	63, 119				14.19.2
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	141				14.14.2
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	143				14.10.2
	413-2 Operations with significant actual and potential negative impacts on local communities	143				14.10.3
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	63				14.17.9 14.18.3 14.19.3
	414-2 Negative social impacts in the supply chain and actions taken	63				14.17.10
GRI 415: Public Policy 2016	415-1 Political contributions	26, 77				14.24.2
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	81				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
GRI 14: Mining Sector 2024						
14.6 Tailings	14.6.2 Report the tailings disposal methods used by the organization	98				
	14.6.3 List the organization's tailings facilities, and report the name, location, and ownership status, including whether the organization is the operator.	101				
14.8 Closure and rehabilitation	14.8.4 For each mine site, report whether it: • has a closure and rehabilitation plan in place; • is undergoing closure and rehabilitation activities; • has been closed and rehabilitated.	109, 112				
	14.8.5 For each closure and rehabilitation plan: • report whether the plan has been approved by relevant authorities; • report the dates of the most recent and next reviews of the plan.	109, 112				
	14.8.6 For each mine site, report in hectares: • total land disturbed and not yet rehabilitated; • total land disturbed and rehabilitated (including progressively rehabilitated, if applicable).	109, 185				
	14.8.7 For each mine site, report the estimated life of the mine (LOM).	112				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
	14.8.8 For financial provisions made by the organization for closure and rehabilitation, including environmental and socioeconomic post-closure monitoring and aftercare for mine sites, report: • the total estimated closure cost (not discounted), whether the financial provision covers the full amount of the current estimated closure cost, and whether the financial provision made is in line with the applicable regulatory requirements, by mine site; • the methodology used to calculate the estimated closure cost; • financial instruments used or developed to guarantee adequate financial provisions for closure and rehabilitation.	112				
	14.8.9 Describe non-financial provisions made by the organization to manage the local community'ssocioeconomic transition to a sustainable post-mining economy, including collaborative efforts, projects, and programs.	112				
14.9 Economic impacts	14.9.6 Report the percentage of workers hired from the local community at the mine-site level, broken down by gender, and the organization's definition used for 'local community'.	116, 120, 191				
14.10 Local communities	14.10.4 For each mine site, report: • the number and types of grievances from local communities during the reporting period; • the percentage of grievances that were addressed and resolved during the reporting period; • the percentage of grievances resolved through remediation during the reporting period.	150				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
14.12 Land and resource rights	14.12.2 List the mine sites where involuntary resettlement is planned, ongoing, or has taken place. For each mine site listed: • report the number of persons who have been or will be displaced, and a breakdown by gender; • describe how peoples' livelihoods and human rights are or could be affected and restored.	141, 142				
	14.12.3 List the locations of operations where conflicts or violations of land and resource rights (including customary, collective, and informal tenure rights) occurred, and describe the incidents and the stakeholders whose rights are or could be affected.	142				
14.15 Critical incident management	14.15.3 Report the number of critical incidents in the reporting period, describe their impacts, and actions taken to remediate them.	127				
	14.15.4 Report the percentage of mine sites that have emergency preparedness and response plans in place, and list the sites that do not.	127				
14.20 Freedom of association and collective bargaining	14.20.3 Report the number of strikes and lockouts involving 1,000 or more workers lasting one full shift or longer, and their total duration in worker days idle.	126				

GRI STANDARDS	DISCLOSURE	LOCATION	NOT LISTED			GRI SECTOR STANDARD REFERENCE NO.
			REQUIREMENTS NOT LISTED	REASON	EXPLANATION	
14.22 Anti-corruption	14.22.5 Describe the approach to contract transparency, including: • whether contracts and licenses are made publicly available and, if so, where they are published; • if contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future.	109				
	14.22.6 Report the following information about the organization's beneficial owners, including joint ventures: • name, nationality, and country of residence; • whether they are politically exposed persons; • level of ownership; • how ownership or control is exerted.	24				
14.23 Payments to governments	14.23.8 For minerals purchased from the state or from third parties appointed by the state to sell on their behalf, report: • volumes and types of minerals purchased; • full names of the selling entity and the recipient of the payment; • payments made for the purchase.	-	All disclosures	relevant information	PT Vale does not purchase minerals from the state so this indicator is not relevant to PT Vale's operations.	

TOPICS IN APPLICABLE GRI SECTOR STANDARDS THAT ARE DETERMINED TO BE NON-MATERIAL	
TOPIC	**Explanation**
14.11 Rights of Indigenous Peoples	This topic is not currently considered material for the Company as there is no official recognition or national regulation regarding the designation of customary land in the Company's operational areas. Nevertheless, the Company remains committed to respecting community rights in accordance with human rights principles.
14.13 Artisanal and small-scale mining	PT Vale is not involved in artisanal and small-scale mining (ASM) activities, either directly or through its supply chain. The Company's operations are conducted entirely on an industrial scale under legitimate mining licenses and are subject to strict oversight by the Government of Indonesia. Accordingly, this topic is not considered material in the context of the Company's operational activities and sustainability impacts.
14.25 Conflict-affected and high-risk areas	PT Vale does not operate in areas classified as conflict-affected or high-risk zones as defined by international guidelines. All of the Company's core operations are located in regions that are relatively stable both politically and socially, and are subject to national legal oversight and protection. Therefore, this topic is not considered material in the context of relevant sustainability risks and impacts for the Company.

SASB Index

CODE	METRIC	LOCATION
Greenhouse Gas Emissions		
EM-MM-110a.1	Gross global Scope 1 emissions, percentage covered under emissions limiting regulations	94, 181
EM-MM-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	89, 94
Air Quality		
EM-MM-120a.1	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	96, 181
Energy Management		
EM-MM-130a.1	(1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	92-93, 179
Water Management		
EM-MM-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	99, 182
EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	100
Waste & Hazardous Materials Management		
EM-MM-150a.4	Total weight of non-mineral waste generated	101
EM-MM-150a.5	Total weight of tailings produced	101
EM-MM-150a.6	Total weight of waste rock generated	
EM-MM-150a.7	Total weight of hazardous waste generated	102, 104
EM-MM-150a.8	Total weight of hazardous waste recycled	102
EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management	101

CODE	METRIC	LOCATION
EM-MM-150a.10	Description of waste and hazardous materials management policies and procedures for active and inactive operations	101
Biodiversity Impacts		
EM-MM-160a.1	Description of environmental management policies and practices for active sites	84, 109
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	99
EM-MM-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	109-110, 185
Security, Human Rights & Rights of Indigenous Peoples		
EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	109, 185
EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land	-
EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	139
Community Relations		
EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	98, 138
EM-MM-210b.2	(1) Number and (2) duration of nontechnical delays	143
Labour Practices		
EM-MM-310a.1	Percentage of active workforce employed under collective agreements	117, 119
EM-MM-310a.2	(1) Number and (2) duration of strikes and lockouts	156
Workforce Health & Safety		
EM-MM-320a.1	(1) All-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) direct employees and (b) contract employees	132

CODE	METRIC	LOCATION
Business Ethics & Transparency		
EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain	76
EM-MM-510a.2	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	76
Tailings Storage Facilities Management		
EM-MM-540a.1	Tailings storage facility inventory table: (1) facility name, (2) location, (3) ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	101
EM-MM-540a.2	Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	101
EM-MM-540a.3	Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	101
Activity Metrics		
EM-MM-000.A	Production of (1) metal ores and (2) finished metal products	24
EM-MM-000.B	Total number of employees, percentage contractors	116

Assurance Statement

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AA1000 Licensed Assurance Provider 000-758

Independent Assurance Statement

The 2024 Sustainability Report of PT Vale Indonesia Tbk

Number	: 13/000-758/IV/2025/SRAI
Assurance Type	: Type 1 and Type 2 for Energy and Emissions, Health and Safety, and Labor Management
Assurance Level	: Moderate
Reporting Standards	: GRI Universal Standard 2021 Consolidated, Sustainability Accounting Standard Board (SASB) Sector Metals and Mining
Reporting Regulation	: Otoritas Jasa Keuangan Regulation (POJK) Number 51/POJK.03/2017 and SEOJK No. 16/SEOJK.04/2021

Dear stakeholders,

PT Sejahtera Rambah Asia or "SRAI" is issuing an **Independent Assurance Statement** ("the Statement") of **the 2024 Sustainability Report** ("the Report") of **PT Vale Indonesia Tbk** ("the Company"). The Company is a multinational corporation engaged in metals and mining. The Report presents the commitment and efforts of the Company in managing its sustainability performance for the reporting period of **January 1st to December 31st, 2024**. As agreed with Management, SRAI's responsibility is to make an assessment based on the data and content of the Report for the year.

Intended User and Purpose

The purpose of the Statement is to present our opinion including the findings and recommendations based on the results of assurance work to the Company's stakeholders. The assuror team in accordance with specific procedures and a specific scope of work carried out the assessment. Except for the areas covered in the scope of the assurance, we encourage all NOT to solely interpret the Statement as the basis to conclude the Company's overall sustainability performance.

Responsibilities

Our obligations to the Management involve assessing the Report's content, generating findings, and recommendations, and issuing a Statement. Additionally, we are tasked with establishing conclusions and recommendations according to agreed-upon standards, methods, and approaches. Consequently, SRAI's evaluation is solely based on the most recent editorial and data received as of April 22nd, 2025, regarding the final draft. SRAI's responsibility lies solely in providing assurance work, distinct from an audit, in accordance with the Non-Disclosure Agreement, the Assurance Engagement Agreement, Representation Letter, and Subsequent Event Testing. Management bears the sole responsibility for presenting data, information, and disclosures within the Report. Therefore, any parties relying on the Report and Statement must assume and manage their own risk.

Independence, Impartiality, and Competency

SRAI confirms NO relationships between the assuror team and the clients that can influence their independence and impartiality to conduct the assessment and generate the Statements. The assuror team is mandated to follow a particular assurance protocol and professional ethical code of conduct to ensure their objectivity and integrity. We carried out a pre-engagement assessment before the assurance work was taken to verify the risks of engagement as well as the independence and impartiality of the team. The assuror team members have knowledge of ISO 26000, AA1000 AccountAbility standards and principles, and also have experience in sustainability report assessment based on various reporting regulations such as Regulation of Otoritas Jasa Keuangan

SRAI Independent Assurance Statement, version 2025, page **1** of **4**

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No.51/POJK.03/2017 on Sustainable Finance, GRI Universal Standard, and Sustainability Accounting Standard Board (SASB) Sector Metals and Mining Standard.

Type and Level of Assurance Service

1. **Type 1 assurance** on the Report content.
2. **Type 2** on Energy and Emissions, Health and Safety and Labor Management.
3. **A moderate level of assurance** to the procedure on the Report content and evidence, where the risks of information and conclusions of the Report being error is reduced, but not to very low, but not zero.

Scope and Limitation of Assurance Service

1. Data and information in the Report for the period of **January 1st to December 31st, 2024.**
2. Material topics presented in the Report: **Good Corporate Governance, Water Management, Waste Management, Energy and Emission, Biodiversity and Land Use, Health and Safety, Labor Management, Community Relations, Human Rights**.
3. Evaluation of publicly disclosed information, system, and process of the Company to ensure adherence of the Report content to the reporting principles.
4. SRAI does NOT include financial data, information, and figures in the Report content. We assumed that the Company, independent parties, or other parties associated with the Company have verified and/or audited financial statements, data, and information.
5. Adherence to the following reporting principles, standards, and regulations:
   a) Regulation of Otoritas Jasa Keuangan (OJK) No.51/POJK.03/2017 regarding the Implementation of Sustainable Finance for Financial Service Institution, Listed, and Public Companies (POJK 51) with reference to OJK Circular Letter (SEOJK) 2022 No.16/SEOJK.04/2021.
   b) Consolidated set of GRI Sustainability Reporting Standards 2021 (GRI Universal Standards).
   c) Sustainability Accounting Standard Board – Metals and Mining.

Exclusion

1. The expression of opinion, belief, expectation, advertisement, and also forward-looking statements, including future planning of the Company as specified in the Report content.
2. Analysis or assessment against regulations, principles, standards, guidelines, and indicators other than those indicated in the Statement.
3. Topics, data, and information outside the reporting period, or in the public domain not covered in the reporting period.
4. Financial performance data and information as presented in the Company's financial statements and documents, other than those mentioned in the Report.

Methodology and Source Disclosure

1. Form an Assuror Team whose members are capable in sustainability report development and assurance.
2. Perform the pre-engagement phase to ensure the independence and impartiality of the Assuror Team.
3. Hold a kick-off meeting and initial analysis of the Report draft based on the SRAI Protocol on Assurance Analysis refers to the standards, principles, and indicators of AA1000AS v3, AA1000APS (2018), and standards/regulations used in the Report.
4. Discuss online the results of the analysis with the Management and data contributors.
5. Verify evidence and trace data and information as covered in the Report.

SRAI Independent Assurance Statement, version 2025, page **2** of **4**

VALE

Assurance Statement

SRAI Reaching Great

AA1000 Licensed Assurance Provider 000-758

6. The Company incorporated our recommendations in the draft Report and release the final Report content.
7. Prepare the Statement and send it to AA1000 AccountAbility for review to get approval before submitting it to the Company.
8. Prepare a Management Letter detailing all aspects seen, recorded, and observed during the assurance work to the Management of the Company for further improvement of sustainability processes.

Adherence to AA1000AP (2018) and GRI Universal Standards

Inclusivity – The Company has conducted stakeholder mapping across all operational areas to ensure inclusive and comprehensive engagement. In addition, the Company has explained and implemented stakeholder engagement activities. The Company actively engages with community groups, including farmers and representatives of local organizations, through formal and informal forums to listen to and understand their concerns regarding long-term impacts on land, livelihoods, and access to clean water.

Materiality – The report states that the Company has identified material topics based on the principle of double materiality approach. However, it is important for the Company to undertake a comprehensive materiality assessment to evaluate both direct and indirect environmental and social impacts of its operations, along with the implications of sustainability on its long-term financial and operational outcomes when selecting these topics.

Responsiveness – The Company has set up both internal and external channels to effectively manage grievances. These include telephone hotlines, grievance boxes, email and mailing addresses, as well as regular coordination meetings at the sub-district level. In 2024, all received grievances have been processed according to follow-up procedures, with some still undergoing resolution. The Company remains committed to finding the most appropriate solutions for all stakeholders involved.

Impact – In 2024, the Company navigated various challenges, including a significant drop in global nickel prices, which directly affected its operating income and profitability. However, the Company was able to maintain operational stability by increasing production and successfully exceeding production targets. In addition to price pressures, the Company faces significant challenges triggered by climate change, this has an impact on increasing fuel consumption and GHG emission intensity. The Company has not yet calculated scope 3 GHG emissions, but the Company has developed tools as an initial step towards calculating scope 3 GHG emissions. In 2024, the Company managed to maintain zero fatality and recorded the lowest rate of work accident. In addition, the Company implements community development and empowerment programs in the Sorowako, Bahodopi, and Pomalaa areas to improve the local communities quality of life.

Statement of Use: "In Accordance to the GRI Standards" – We evaluated the Report content in adherence to the GRI Universal Standards principles, disclosures, and requirements for reporting. The Company has referred to the nine requirements: apply the reporting principles, report the disclosures in GRI 2: General Disclosures 2021, determine material topics, report the disclosures in GRI 3: Material Topics 2021, report disclosures from the GRI Topic Standards for each material topic, provide reasons for omission for disclosures and requirements that the organization cannot comply with, publish a GRI content index, provide a statement of use, and notify GRI.

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GRI Standards Principles – As the assurance work was taken, the report content sufficiently indicates its adherence to the Reporting principles (accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability). The Management provided sufficient support during the assurance work by submitting evidence/documents as requested.

Type 2 Assurance – In 2024, the Company conducted a scope 3 GHG emissions study and identified carbon trading as a potential option. However, the Company has not reported scope 3 GHG emissions using the initial data sampling and the Company has not implemented concrete plans or actively participated in the carbon trading market, limiting its ability to offset emissions through market-based mechanisms. In addition, the Company conducted a climate impact study conducted by third party, which assessed the financial and operational risks associated with climate change. On the topic of health and safety, the Company achieved zero fatalities recorded across strategic projects in Pomalaa, Bahodopi, and Sorowako Limonite, indicating strong safety protocols. The Company also provides extensive health and safety training. In addition, the Company monitors the effectiveness of training by looking at the validity period of the certification attended by employees. In terms of labor management, the Company regularly holds quarterly forums to discuss issues for both unionized and non-unionized workers. Meanwhile, Company has successfully resolved the disputes that occurred through a mediation process. In addition, the Company also has a Contractor Compliance Review (CCR) to monitor and ensure vendor compliance with labor standards.

Recommendation

1. To strenghten vendor pay compliance and transparency by enhancing the Contractor Compliance Review (CCR) process.
2. To enhance explanatory notes for numeric data by providing brief explanatory notes or footnotes for significant year-over-year changes.
3. To include a timeline or roadmap in the report will provide stakeholders with clearer expectations and accountability mechanisms.

The assurance provider,

Jakarta, April 22nd 2025

Lim Hendra
Assurance Director
PT Sejahtera Rambah Asia
(SRAI)

SRAI Reaching Great

AA1000 Licensed Report 000-758/V3-QLQX9

VALE

Feedback Form [POJK G.2]

Thank you for taking the time to read the 2024 Sustainability Report of PT Vale Indonesia Tbk.

To improve the quality of the report, enhance transparency of our sustainability performance, and gather input for the preparation of future reports, we kindly ask you to complete the following Feedback Form and return it to us via email, or scan the QR code to fill it out online.

Thank you once again for your time and support.

Reader's Profile
Full Name:
Institution/ Company:
Email:
Category:

- ◯ Government
- ◯ NGO
- ◯ Industry
- ◯ Academic
- ◯ Media
- ◯ General Public
- ◯ Others (*please specify*) .....

1. This Sustainability Report provides valuable insights into PTVI's economic, environmental, social, and governance performance.

   ◯ Agree ◯ Somewhat Agree ◯ Disagree

2. The data and information disclosed in this report are structured, systematic, and easily understandable.

   ◯ Agree ◯ Somewhat Agree ◯ Disagree

3. The data and information disclosed in this report are complete, transparent, and unbiased.

   ◯ Agree ◯ Somewhat Agree ◯ Disagree

4. The design, font type, size, color scheme, layout, and images in this report are attractive and easy to read.

   ◯ Agree ◯ Somewhat Agree ◯ Disagree

5. What are the information(s) in this report that you consider most useful?

   .....

6. What are the information(s) in this report that can be improved?

   .....

7. What information in this report do you think should be included in future reports?

   .....

Thank you for taking the time to provide feedback on this report. We greatly appreciate your contribution in completing this form. Please send the completed feedback form via email to: ptvicommunications@vale.com

VALE

2024
Sustainability Report

VALE

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