



Executive Summary Global Industry Standard on Tailings Management (GISTM)

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A Message from the Chief Executive Officer

"In recent years, we have made foundational advances in our governance, risk management, and operational processes related to tailings storage facilities. We have fully adopted the Global Industry Standard on Tailings Management (GISTM), established by ICMM, UNEP, and PRI, with the goal of ensuring excellence at every stage of the facility lifecycle, from design through closure."



Gustavo Pimenta
Chief Executive Officer

A Message from the Executive Vice President of Operations and Accountable Executive



Carlos Medeiros
Vice President of Operations
and Accountable Executive

"Adopting the GISTM is part of our commitment to operating at the highest levels of safety and applying best-in-class risk management. Our decision to embrace the GISTM demonstrates how important it is to us to act safely and transparently in our day-to-day activities, putting our values into action."

A Message from the Technical Vice President

"Implementing the GISTM has been a process that requires discipline and strategy. The Global Standard helps our company focus on excellence in technical standards, as well as high levels of sustainability, governance, and transparency. Our commitment is to remain at the forefront of advances in this field, including by applying the lessons learned and GISTM models to the management of the company's other geotechnical structures."



Rafael Jabur Bittar
Technical Vice President

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1. Introduction

The Global Industry Standard on Tailings Management (GISTM) represents a landmark for the mining industry. Released in August 2020 by the International Council on Mining and Metals (ICMM), the United Nations Environment Program (UNEP), and the Principles for Responsible Investment (PRI), the GISTM establishes comprehensive requirements for the management of Tailings Storage Facilities (TSFs).

In May 2021, ICMM published the Conformance Protocol to provide guidance on best practices for implementing the GISTM. These protocols emphasize the need for mining companies to demonstrate a strong commitment to technical management and governance, in alignment with the highest standards of safety and social and environmental responsibility.

At the core of the GISTM is the principle of zero harm to people and the environment, reflecting an effort to mitigate risks and enhance operational safety at mining Tailings Storage Facilities. The Standard establishes a global benchmark for excellence in social, environmental, and technical management. This includes the adoption of rigorous safety practices throughout all phases of the TSF lifecycle, including planning, design, construction, operation, closure, and post-closure.

The objective is to ensure that mining operations not only meet, but exceed, applicable regulatory and ethical requirements, demonstrating a commitment to sustainability and corporate responsibility.

In January 2021, Vale, together with the other ICMM members, publicly committed to implementing the GISTM at all of its TSFs by August 5, 2023. In addition to dams, Vale has also adopted the GISTM for Tailings Disposal Stacks (PDRs) and Waste Rock and Tailings Disposal Stacks (PDERs).

By undertaking the challenge of meeting the requirements set out in the GISTM, Vale reaffirms its commitment to the safety of its operations, environmental protection, and human life. This work is continuously evolving, and the most current information on this journey is presented below.

2. Vale’s Tailings Storage Facility Portfolio

Reaffirming its commitment to the ICM, society, and its employees, Vale achieved GISTM conformance for 35 TSFs in Brazil by August 5, 2023.

Of the 35 dams, the B3/B4 Dam, located at the Mar Azul Mine in Nova Lima, Minas Gerais, and the Área IX and Grupo Dams, located at the Fábrica Mine in Ouro Preto, Minas Gerais, have completed decommissioning works in accordance with the criteria established by the Global Standard. These structures have been taken out of their original service, and their physical and environmental stability has been restored. For the Área IX Dam, approval from the licensing authority is pending to complete all legal requirements.

In addition, the Torto Dam and Dique de Pedra achieved GISTM conformance in August 2025. The Torto Dam was under construction when the GISTM was published, and Dique de Pedra was added to Vale’s dam portfolio after the GISTM was published.

In addition to the TSFs described above, Vale’s portfolio includes 19 stacks classified as Tailings Stacks (PDR/PDER). GISTM implementation at these facilities began at a later stage, with the aim of incorporating the lessons learned and maturity gained through its application at the other TSFs described above. These structures are at different stages of conformance. For requirements that have not yet been met, detailed action plans have been developed, with defined deadlines and ongoing monitoring, ensuring traceability and transparency throughout the implementation journey.

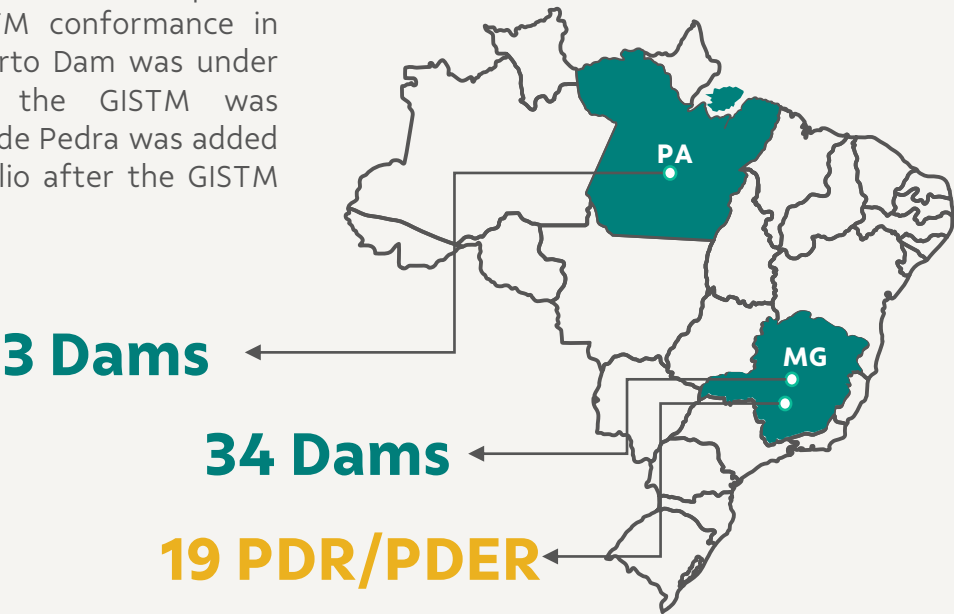


Figure 1: Location of TSFs

3. Vale Geotechnical Organizational Structure

Governance of Vale's Tailings Storage Facilities (TSFs) is based on the Lines of Defense model, which establishes roles, responsibilities, and independent assurance activities to strengthen risk management and decision-making.

Vale's First Line of Defense comprises multidisciplinary teams responsible for the operation, monitoring, maintenance, and performance assessments of TSFs, reporting to the Accountable Executive (Executive Vice President of Operations).

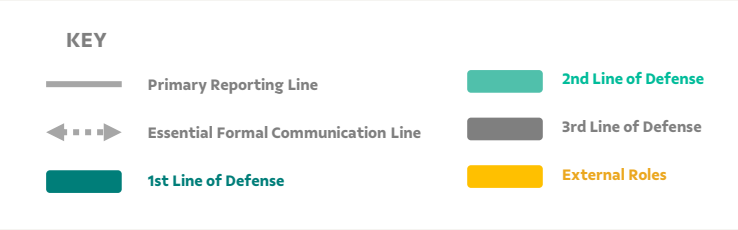
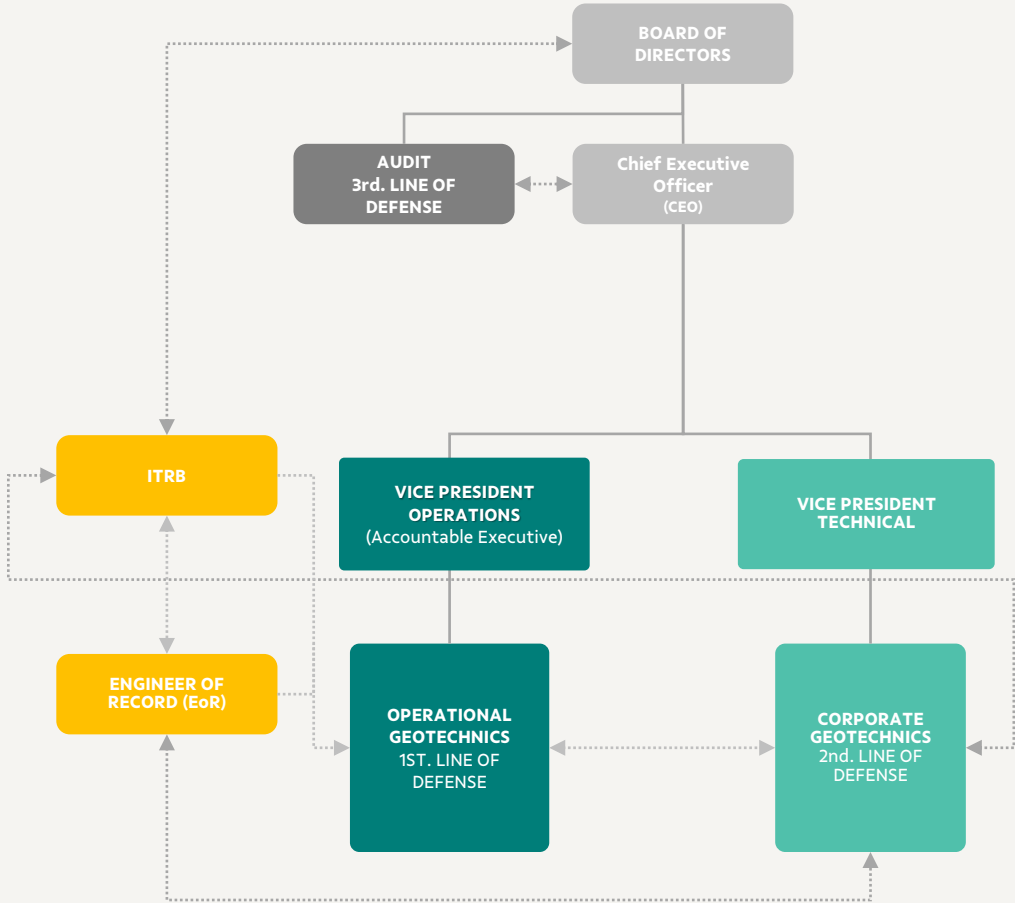
Under the leadership of the Executive Vice President of Technical Services, Vale's Second Line of Defense is responsible for defining the minimum methodologies and technical, technological, and management standards, as well as risk and asset reliability indicators, to be mandatorily adopted by the First Line of Defense.

The Internal Audit Directorate, which reports to the Chair of the Board of Directors, represents Vale's Third Line of Defense. It conducts audits through control testing and the investigation of reports, providing independent assurance, including assurance regarding the effectiveness of risk management and prevention, internal controls, and compliance.

Managers involved in TSF management have an appropriate level of authority to access the human, technical, and financial resources required to manage the safety and risks associated with these structures.

In addition, Vale relies on independent specialists and technical review bodies, such as the Engineer of Record (EOR) and the Independent Tailings Review Board (ITRB). These external parties maintain direct and independent communication channels with those responsible for managing the structures, contributing impartial technical assessments, recommendations, and challenges that strengthen the effectiveness of controls and the continuous improvement of risk management.

3. Vale Geotechnical Organizational Structure



4. Implementation History Through GISTM

Conformance as of August 2023

In 2019, Vale began enhancing its Tailings and Dam Management System (TDMS), establishing roles and responsibilities, standards, and procedures for the safe management of TSFs.

In 2020, shortly after the GISTM was released, Vale mobilized a dedicated team to oversee the GISTM implementation process across the company. Also in 2020, Vale's Board of Directors approved a new Dam and Mining Geotechnical Structure Safety Policy (POL0037-G), which identifies the GISTM as one of its key references.

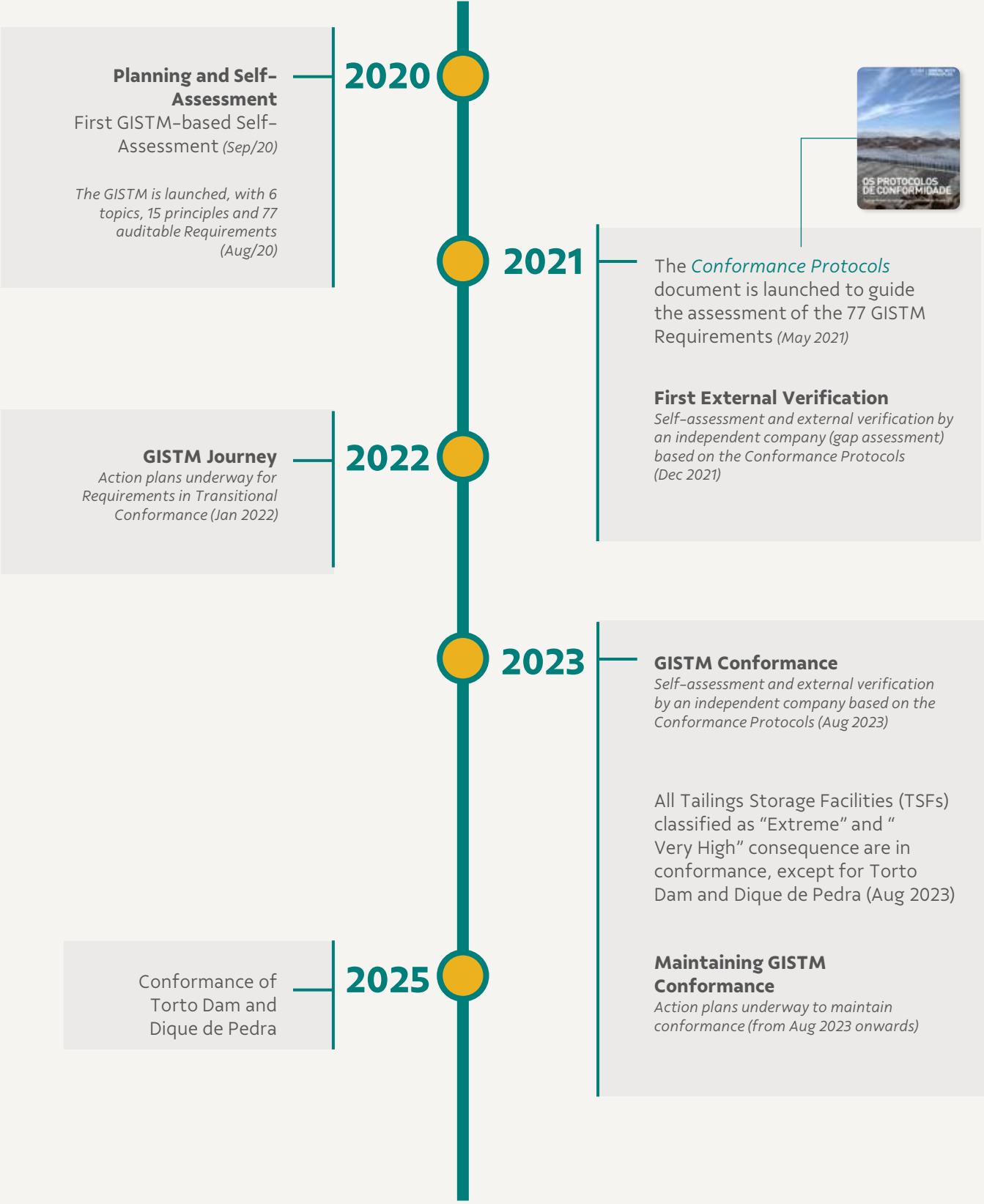
The formal GISTM implementation process began in September 2020 with a self-assessment, followed by a review conducted in 2021.

Also in 2021, Vale engaged a specialized consulting firm to obtain an independent external assessment. In November 2021, Vale publicly reported its initial results, which served as the basis for developing action plans to address the requirements under Transitional Conformance.

The second phase of the GISTM implementation program was launched in March 2022. It consisted of a series of integrated activities involving multidisciplinary teams.

Given the broad scope of the GISTM requirements, the work resulted in the teams' continuous maturation across the various workstreams, with clear improvements in the lines of defense related to environmental, social, and governance matters.

To carry out an additional independent external verification, Vale engaged specialized technical consulting firm KPMG at the end of 2022 to calibrate and validate the methodology and the results achieved in implementing the GISTM across its operations.



5. Maintaining Conformance

The GISTM Conformance Maintenance Program comprises a set of processes designed to ensure the continuity of conformance with the GISTM throughout the TSF lifecycle.

According to the criteria set out in the ICMM Conformance Protocols, a company may declare conformance with the GISTM based on Requirements that have been met and those for which action plans are under way. The implementation of, and adherence to, a management standard such as the GISTM is an ongoing process.

To enable the monitoring and control of indicators, Vale has established the following definitions:



Requirements in Conformance

These are Requirements that have already been met during implementation and do not require action plans.



Requirements in Transitional Conformance

These are Requirements that have been met but still have action plans under way.

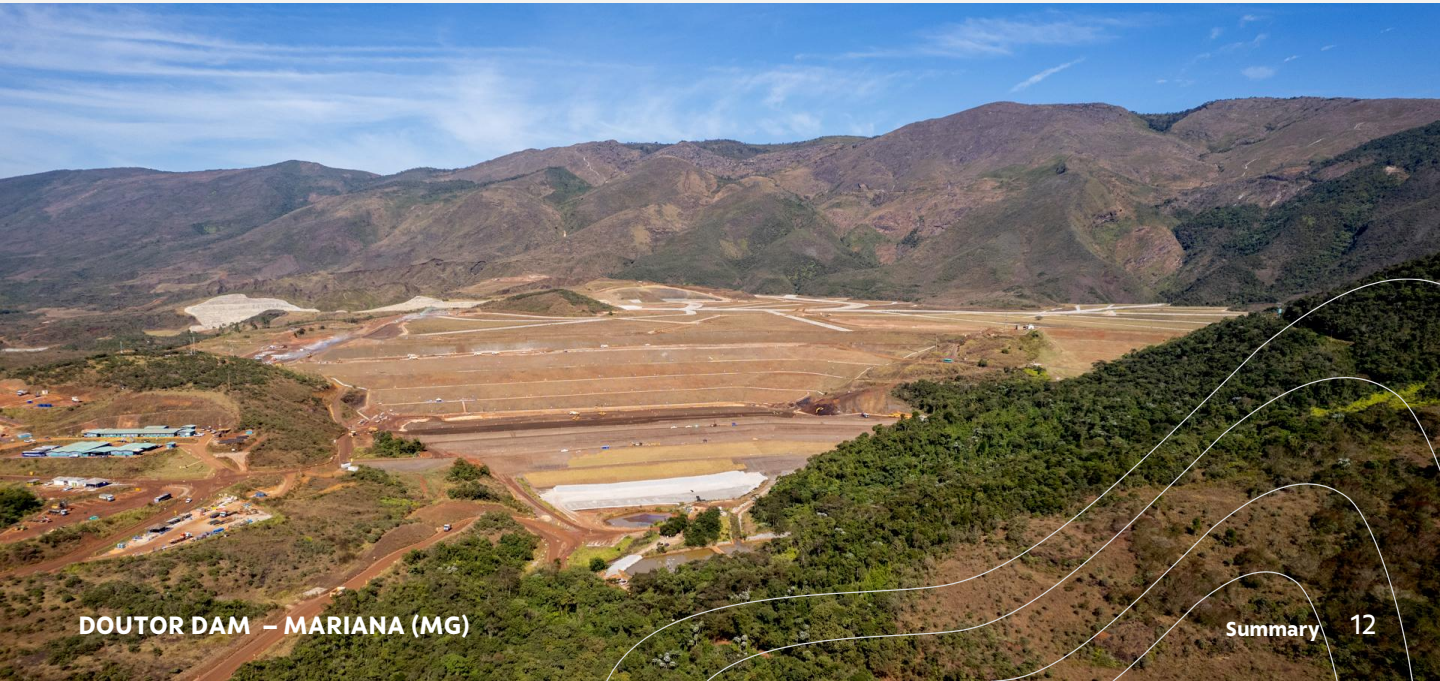
Requirements classified as being in Transitional Conformance are more complex and are therefore associated with GISTM requirements that demand engineering work and/or other long-term measures. These Requirements are expected to be completed as soon as reasonably practicable, with actions being duly monitored and communicated among all parties involved. In addition to meeting the Standard’s 77 Requirements, a TSF in Conformance indicates that its management, oversight, monitoring and information transparency have been enhanced and continue to undergo continuous improvement. The priority focus is the safety of people and the environment throughout the TSF lifecycle.

The current assessment reflects the consolidation and effective implementation of these initiatives, which have resulted in noticeable improvements in requirement conformance. This progress not only demonstrates compliance with the established plan but also shows the increasing maturity of management and control processes, reinforcing the safety and reliability of operations at these structures.

For the requirements in Transitional Conformance, the ongoing action plans were approved by the Accountable Executive, including their completion deadlines. It is important to emphasize that, in line with the GISTM’s objective of zero harm to people and the environment, Vale prioritized and completed all actions aimed at ensuring such integrity.

Furthermore, although Vale is increasingly close to fully implementing the actions identified for all of its TSFs, it is essential to maintain a continuous approach to reviewing and updating compliance with the requirements.

Conformance should not be regarded as a permanent state, but rather as a dynamic process subject to change over time, making constant monitoring and the capacity to respond to any necessary adjustments indispensable.



DOUTOR DAM – MARIANA (MG)

6. External Reviews

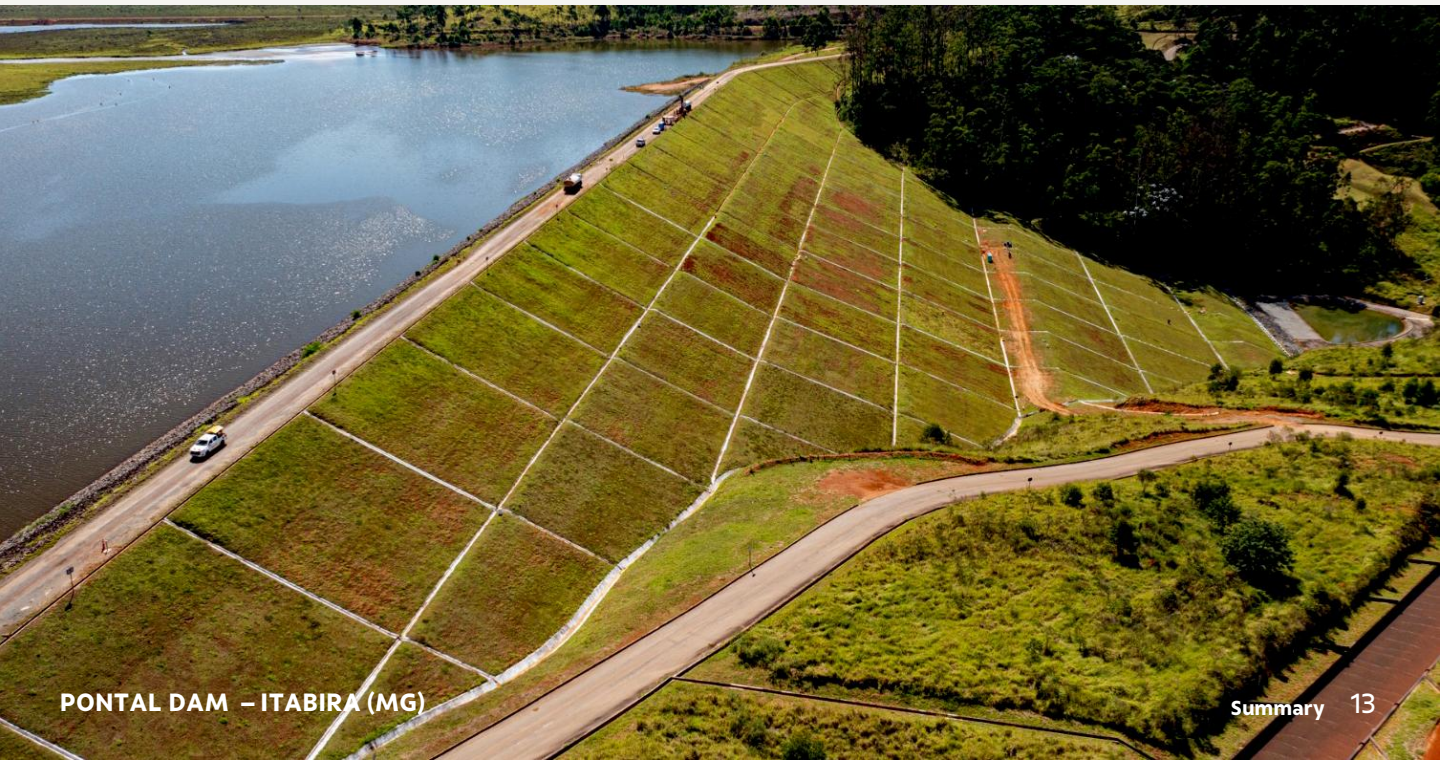
In January 2025, the Global Tailings Management Institute (GTMI) was officially established, with the objective of strengthening the safety of tailings storage facilities through the broad adoption and implementation of the GISTM.

Vale has supported the GTMI and monitored the Institute’s development, recognizing this initiative as a significant advancement for the safe management of TSFs, reinforcing the industry’s commitment to continuous improvement and the standardization of best practices.

Since 2022, Vale has carried out periodic assessment cycles conducted by KPMG, a specialized audit and technical consulting firm, to verify its structures’

adherence to GISTM requirements. These assessments provide a comprehensive view of progress in implementing the Standard and contribute to preparing the company for future external conformity reviews.

The results obtained have guided the implementation of continuous improvement actions, reflecting the evolution of the level of adherence to the GISTM over recent years. In line with its commitment to transparency, Vale also assesses the public disclosure of the results of these evaluations, expanding access to information on the progress of its journey toward implementation of the Standard.



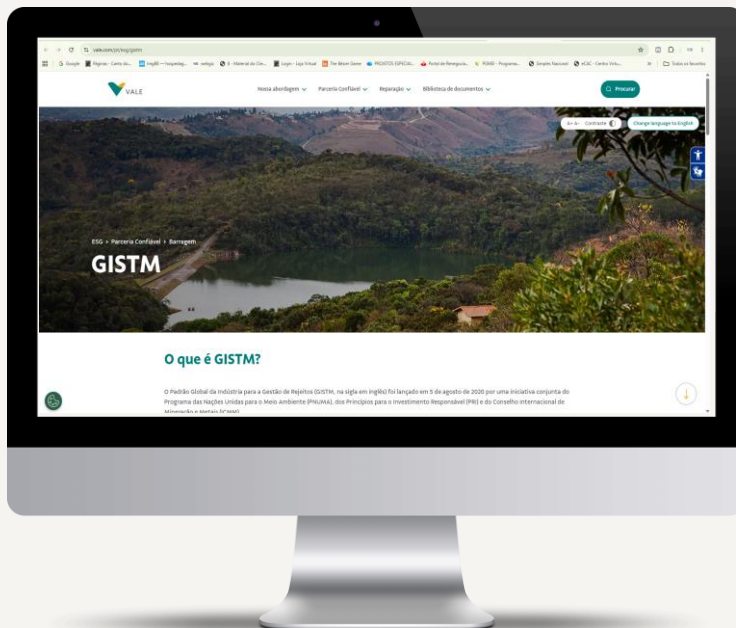
PONTAL DAM – ITABIRA (MG)

7. Public Disclosure

The GISTM is founded on the principle of public disclosure of information through the maintenance of communication channels, ensuring transparency based on standardized and reliable data. Principle 15 calls for: “Publicly disclose and provide access to information about Tailings Storage Facilities to support public accountability.”

Furthermore, according to Principle 15, Requirement 15.1 states: “Publish and regularly update information on the Operator’s commitment to the safe management of Tailings Storage Facilities; the implementation of its tailings governance framework; and its policies, standards or approaches applicable across the organization for the design, construction, monitoring and closure of Tailings Storage Facilities.”

Vale maintains external communication through the company’s official channels, including the Whistleblower Channel, Contact Us, Reparation, among others.



**CLICK HERE TO
ACCESS THE DAMS
SECTION OF THE ESG
PORTAL**

Since 2021, Vale has kept an Executive Summary on the implementation of the GISTM publicly available and up to date. This document is updated annually and can be accessed on the website in the Dams section of the ESG Portal. Access it.

8. Conclusion

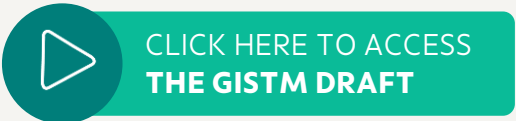
Vale reaffirms its commitment to the Global Industry Standard on Tailings Management, reinforcing its dedication to activities related to the integrity of its Tailings Storage Facilities. This commitment encompasses not only dams, but also tailings piles, reinforcing a comprehensive and integrated approach to tailings management.

Since the last publication of the Executive Summary, significant progress has been made in implementing actions and strengthening compliance with the requirements established for Dams and Tailings Stacks. This progress reflects Vale’s ongoing commitment to compliance and the continued advancement of its management processes.

The teams dedicated to implementing the GISTM remain committed to reviewing and maintaining compliance over time. The periodic reassessment of the protocols makes it possible to identify opportunities for improvement, correct any deviations, and ensure that the necessary corrective actions are implemented to restore compliance whenever required.

This document is updated and published annually.

THE GISTM DRAFT, PUBLISHED ON AUGUST 5, 2020, IS AVAILABLE IN PORTUGUESE AT THE FOLLOWING LINK:



THE GISTM CONFORMANCE PROTOCOLS, DATED MAY 2021, ARE AVAILABLE IN PORTUGUESE AT THE FOLLOWING LINK:



Approved by the Accountable Executive

Carlos Medeiros

Vice President of Operations

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