



Our special process for assessing Vale in the 2023  
Corporate Human Rights Benchmark due to its  
role in the Brumadinho dam collapse

April 2023

# Introduction

While providing a snapshot in time of corporate human rights practices, the Corporate Human Rights Benchmark (CHRB) methodology does not adequately address major catastrophic events with severe negative human rights impacts. In order to better reflect such exceptional circumstances, the CHRB applies the 'special process for major catastrophic events'.

If a company that is assessed by the CHRB is involved in a major catastrophic event with severe negative human rights impacts, the CHRB reserves the right to temporarily suspend the company from the Benchmark and/or to reduce the company's score in the benchmark and assess whether appropriate remedial steps have been taken. The assessment, as set out in the special process for major catastrophic events methodology, investigates whether and the extent to which the company has taken short- and long-term steps to assess the causes of the event, to prevent similar episodes from occurring in the future and to provide remedies to the affected stakeholders. The assessment is meant to better reflect a company's response, ensure that the benchmark remains a robust and credible source of data, and encourage benchmarked companies to respond to such events in a transparent manner that prioritises actions to engage with and provide remedy to affected stakeholders.

The special process for major catastrophic events methodology establishes three short-term (within 12 months after the event) and three long-term (within 24 months after the event) remedial steps that the company must take in response to the major catastrophic event in order to restore its placement and scoring in the Benchmark. Based on the score obtained in this assessment, the company will be able to regain a percentage of its score in the 2023 CHRB.

The methodology divides events into two categories:

- Category 1 considers events with severe negative human rights impacts to the right to life or health of affected stakeholders that were caused or contributed to by the company. In this category the company's underlying score in the CHRB is capped at 50%.
- Category 2 considers other types of severe negative human rights impacts caused or contributed to by the company. In this category, the company's underlying score in the CHRB is capped at 70%.

This assessment covers the following Category 1 event involving Vale in 2019.

## Overview of the event

On 25 January 2019, Vale's tailing Dam I at the Córrego do Feijão iron ore mine collapsed and created a mudflow that killed 270 people of whom 267 were officially confirmed dead while the remaining 3 are still reported as missing. The collapse caused also environmental damage as the mud reached the Paraopeba River.

The CHRb recognises that the event the in question has caused a severe negative impact on the human rights of affected stakeholders and that, as a consequence of that, it is likely and quite understandable that there are stakeholders who may never agree with or accept Vale's reparative steps in response to the event. The CHRb acknowledges that much of the impact can never be fully repaired and in no way does it intend to diminish the adversity suffered as a result. The methodology instead seeks to prompt companies involved in such events to take appropriate immediate and longer-term remedial actions for and with affected stakeholders and to do so as transparently as possible to prompt lessons learned for the company, the sector, the country and the wider business and human rights community.

# Research process

## Sources

For the majority of the requirements, the CHRB special process considers publicly available information that is disclosed by the company. To provide a more comprehensive analysis of the indicators on remedies to affected stakeholders, the assessment also takes into account selected publicly available third-party evidence, including from the Business and Human Rights Resource Center and government investigations.

## Company engagement

Following Vale's involvement in a major catastrophic event with severe negative human rights impact, the company was informed of its suspension from the benchmark and the application of the special process for major catastrophic events methodology. Prior to the assessment, Vale was provided with the opportunity to share publicly available evidence they would like the CHRB to take into account. The CHRB research team has assessed the evidence provided by the company, other publicly available information from the company, and selected third-party sources to produce a draft assessment. This draft assessment was discussed with the company and the company provided written feedback, which was assessed to produce the final assessment.

## Scoring (Category 1)

The CHRB assessment is divided into six indicators for the three short-term and three long-term remedial steps, which are divided into different elements. For each element, the company may score 0, 1 or 2 points. Elements 2.B and 4.B, which assess stakeholder involvement and satisfaction with the remediation, have been double weighted for a total of 4 points each.

Timeframe	Indicator	Element	Max. score	
Short-term	1	A	2	
		B	2	
		C	2	
	2	A	2	
		B ( <i>double weighted</i> )	4	
		C	2	
	3	A	2	
		B	2	
	Max. score short-term remedial steps			18
	Long-term	4	A	2
B ( <i>double weighted</i> )			4	
C			2	
5		A	2	
		B	2	
6		A	2	
		B	2	
		C	2	
Max. score long-term remedial steps			18	
Max. total score			36	

Prior to the assessment, the company's underlying score for the CHRB has been capped at 50%. A company that receives the maximum available score for the short- and long-term remedial steps (36 points) can regain its full underlying score for the CHRB. When a company receives less than the maximum available score, the percentage the company can regain will be calculated accordingly. For example, a company in Category 1 that has scored 15/36 points in the special process will regain 15/36 of 50%, meaning it will regain 21% and its underlying score in the CHRB will be capped at 71%.

# Assessment

## 12 months after the event

	<p>1. The company conducted and made <b>public an immediate assessment of its systems</b>, including related operational processes and infrastructure, to prevent further harm from the incident and to take any immediate steps to prevent similar impacts from happening in the future. <b>The views of affected stakeholders should be sought and disclosed</b> as part of this assessment and <b>the company should make public conclusions reached</b>.</p>
2	<p><b>(a) Public and immediate assessment of its systems</b></p> <p><i>Based on the following information, the CHRB has assessed the company as having conducted an immediate assessment of its systems, including related operational processes and infrastructure, to prevent further harm from the incident and to take any immediate steps to prevent similar impacts from happening in the future.</i></p> <p>As a consequence of the rupture of the B1 Dam, Vale established the Special Independent Committee for Dam Safety Advisory (CIAE-SB) on 15 February 2019. The CIAE-SB, which is composed of external members, advises the Board of Directors and was tasked to undertake an assessment of safety conditions, management and mitigation of risks related to Vale's dams, as well as to recommend measures to be taken to strengthen their safety conditions. The scope of its work covered Vale's most important dams, dams that presented safety issues, tailings and mining waste piles. The Committee issued 350 recommendations on 50 different dams and dikes, on 4 containment structures and on 4 piles. The CIAE-SB published a report after each technical visit. Furthermore, the Committee has been consulted on the use and implementation of the policy "Safety Policy for Dams and Geotechnical Mining Structures", which has been approved and published by Vale in November 2020 (Vale - Revised Policy for Dam Safety and Geotechnical Mining Structures, October 2022). As mentioned in the report, "the purpose of this policy, which is applicable to all types of dams, dikes, mines and waste rock piles, is to establish guidelines and commitments for the safety management of these structures, in order to correctly manage the critical aspects, as well as to meet the risk controls associated with the management systems that have been implemented" (Independent Committee for Extraordinary Advisory on Dam Safety – Final Report, 2021 p. 82).</p> <p>In addition to the Special Independent Committee for Dam Safety Advisory (CIAE-SB), the company conducted numerous reviews during 2019 and 2020 of its governance and health and safety processes, operational risk assessments, remediation processes, and human rights governance and management. Within 12 months after the event the company disclosed that these reviews included:</p> <ul style="list-style-type: none"><li>• Review of the Vale's Global Human Rights Policy (2019), including a public consultation;</li><li>• Update of the Human Rights Guide in Portuguese and English;</li><li>• Integration of human rights adverse impact risks into Vale's Global Integrated Risk Map (Vale - Webpage 'Human Rights'). In 2019, 82% of the operations carried out a human rights risk assessment and since 2020, 100% of operations have their risks recorded in Vale's risk management system and 100% of the action plans of the enterprises are monitored along with the other business risks (Vale – Webpage 'Human Rights')</li><li>• Approval and adoption the Safety Policy for Dams and Geotechnical Mining Structures (POL-0037-G), the purpose of which is to provide safety management and risk control guidelines (Vale - Revised Policy for Dam Safety and Geotechnical Mining Structures, October 2022)</li></ul>

	<ul style="list-style-type: none"> <li>• Introduction of the Engineer of Record (EoR) role in 2020, who is the person responsible for permanent technical oversight for the majority of the most important dams, as well as "Independent Technical Review Boards" for the areas in which Vale operates. These two measures aimed at having in place a more comprehensive technical management of the structures through direct and continuous supervision. (Independent Committee for Extraordinary Advisory on Dam Safety – Final Report, 83)</li> </ul> <p>Sources:  Independent Committee for Extraordinary Advice on Dam Safety - <a href="#">Final Report, 2021</a>  Vale – Webpage '<a href="#">Human Rights</a>'  Vale - <a href="#">Revised Policy for Dam Safety and Geotechnical Mining Structures, October 2022</a></p>
0	<p><b>(b) The views of stakeholders should be sought and disclosed</b>  <i>No evidence was found in the public domain that the CIAE-SB interacted with stakeholders as part of the assessment, nor was relevant evidence found in the company's disclosure regarding stakeholder responses to the assessments.</i></p>
1	<p><b>(c) Company should make public the conclusions reached</b>  <i>Based on the following information, the CHRB has assessed the company as having made public the conclusion of the CIAE-SB report and the status of implementation of the CIAE-SB's recommendations. However, as stakeholders views have not been sought during the assessment (see element (b)), the company cannot be assessed as having disclosed a full and all-rounded assessment</i></p> <p>The Independent Committee for Dam Safety Advisory's final report is publicly available and includes the assessment, recommendations, and how these have been implemented by the company. The report contains the Recommendation Status Tables for the dams and geotechnical structures of the Ferrosos area, which Vale uses to "monitor the adoption of the recommendations in which the report/technical note, the mine, the structure analyzed, the Committee recommendation, comment of the Vale team responsible for the analysis and compliance with each recommendation, the deadline for the implementation of each recommendation and the final diagnosis of the actions related to each recommendation are inserted in sequential order for each recommendation" (Independent Committee for Dam Safety Advisory – Final Report, 2021, 46). The 350 recommendations cover "Observations of tailings dams, dams that accumulate water for various purposes, including for electric power generation, containment structures, compacted earth fill dams for disposal of tailings and sediments, dikes, waste piles and tailings piles are included. In total, this item brings together 350 recommendations on 50 different dams and dikes, on 4 containment structures and on 4 piles" (Independent Committee for Extraordinary Advisory on Dam Safety - Final Report, 2021, 17).</p> <p>However, there is no public disclosure to demonstrate that the Special Independent Committee for Dam Safety Advisory's assessment and the 350 recommendations did not received input from affected stakeholders as there is no publicly available evidence that the Committee has engaged with them.</p> <p>Sources:  Independent Committee for Extraordinary Advice on Dam Safety - <a href="#">Final Report, 2021</a></p>

2. The company appointed an **independent committee** including stakeholder representatives to **review the event**, in a manner that is transparent, **independent and co-designed with affected stakeholders**, to **identify and assess the root causes** and immediate causes of the event, including systemic and structural issues, **and recommend actions** to the board and to others. **The conclusions of the review and its recommendations should be made public** to build trust in the results and as a measure of respect for the stakeholders affected, and the **company should respond publicly to the findings.**

<p><b>2</b></p>	<p><b>(a) Independent committee to review the event and provide related recommendations</b></p> <p><i>Based on the following information, the CHRB has assessed the company as having appointed an independent committee to assess the cause of the event, which also provided recommendations.</i></p> <p>Vale’s Board of Directors created the Investigation Committee (CIAE-A) to assess the technical causes of the dam collapse as well as non-technical contributing factors, including indirect factors. The Investigation Committee was composed of three external and independent members, whose selection has been supported by the consulting firm Korn Ferry. Furthermore, the Investigation Committee hired a Brazilian law firm specializing in internal investigations, a U.S. law firm, Ernst &amp; Young Assessoria Empresarial Ltda. (“EY”), and a technical team of ABSG Consulting Inc. and ABSG Group Services do Brasil Ltda. which has been supported by the firm Geocompany Tecnologia Engenharia e Meio Ambiente Ltda. (“GeoCompany”).</p> <p>The Investigation Committee investigation assessed the following:</p> <ul style="list-style-type: none"> <li>• Processes, controls and governance workstream: it assessed the governance culture, the internal risk and dam management, the relationship with external auditing companies and governmental officials, Vale’s remuneration policy and the maintenance spending.</li> <li>• Electronic data collection and review workstream: it reviewed electronic data of actual and former employees and collected relevant Vale’s databases and systems.</li> <li>• External monitoring workstream: it analyzed the legal procedures and external investigation linked to the dam’s collapse, the five Parliamentary Inquiry Commissions documents; electronic documents made available by Vale in response to requests from administrative and judicial authorities; and reports published by federal and state agencies.</li> <li>• Technical review: it focused on any relevant documents aimed at identifying technical factors potentially related to the failure of the B1 tailings dam that collapsed.</li> <li>• Other activities: analysis of 36,000 documents from Vale’s internal departments, interviews with employees, former employees and third parties.</li> </ul> <p>The final report made 25 recommendations to the Board (CIAEA - Executive Summary of the Independent Investigation Report, 2020, 6, 12, 40-41, 45).</p> <p>Sources: Extraordinary Independent Consulting Committee for Investigation (CIAEA) - <a href="#"><u>Executive Summary of the Independent Investigation Report, February 2020</u></a></p>
<p><b>0</b></p>	<p><b>(b) Co-designed with affected stakeholders</b></p> <p><i>No evidence was found that the Investigation Committee was co-designed with stakeholders, nor that it engaged with affected stakeholders other than employees as part of the review.</i></p> <p>As part of the investigation, the Investigation Committee engaged with current and former employees, conducting a total of 160 interviews. Furthermore, the Investigation Committee engaged with the authorities responsible for other related investigations and monitored the work of the various established parliamentary committees in order to obtain relevant information from multiple sources (CIAEA - Executive Summary of the Independent Investigation Report, 2020, 10-12).</p> <p>However, it is not clear that the interviews were part of a co-designing mechanism, e.g. engaging with actual and former employees for the purpose of co-designing the review process. Rather, the interviews were part of the investigation itself. As such, the CHRB was not able to identify public evidence that the review carried out by Investigation Committee was co-designed with affected stakeholders.</p>

	<p>Sources:  Extraordinary Independent Consulting Committee for Investigation (CIAEA) - <a href="#">Executive Summary of the Independent Investigation Report, February 2020</a></p>
2	<p><b>(c) The conclusions of the review and its recommendations should be made public and the company should respond publicly to the findings</b></p> <p><i>Based on the following information, the CHRB has assessed the company as having disclosed the Investigation Committee's recommendations and having responded to the latter by either acting on the majority of them by the 12 month period or by setting public timebound targets.</i></p> <p>Vale published the Executive Summary of the Independent Investigation Report in February 2020 which includes the conclusions of the investigation and 25 recommendations. The Investigation Committee concluded that the dam collapse occurred due to structural instability with liquefaction and that Vale had information in relation to the fragile conditions of the dam prior to its collapse. It also concludes that the actions taken by Vale since 2003 to improve the safety of the dam were limited and unsuccessful. Furthermore, the Investigation Committee concluded that external dam auditors were not independent, which created a conflict of interest and might have resulted in biased audits.</p> <p>The Investigation Committee issued 25 technical and governance-related recommendations in February 2020. Vale published the timeline of implementation of the 25 recommendations on March 2020. It disclosed that 21 out of the 25 recommendations had been addressed and set the target to complete them by December 2022 (Vale - Press Release "Vale informs on timeline").</p> <p>Sources:  Extraordinary Independent Consulting Committee for Investigation (CIAEA) - <a href="#">Executive Summary of the Independent Investigation Report, February 2020</a>  Vale - <a href="#">Press Release "Vale informs on timeline of implementation of CIAE-A recommendations"</a></p>

<p>3. The company provided <b>immediate and appropriate forms of remedy</b>, including <b>compensation to victims and their families and their communities</b> as appropriate to provide immediate relief.</p>	
1	<p><b>(a) Provision of appropriate types of remedy and coverage to victims, families, and community</b></p> <p><i>Based on the following information, the CHRB has assessed the company as having provided various remedies to the victims and their families as immediate relief. However, it is not clear if the remedies provided were deemed appropriate by all stakeholders involved.</i></p> <p>The company put in place various forms of immediate non-financial remediation for the affected workers and communities that have been provided since the disaster occurred. Immediate remedies provided in the first 12 months include:</p> <ul style="list-style-type: none"> <li>• Means of rescue, including helicopter assistance (Vale – Webpage "Vale updates on support efforts")</li> <li>• Humanitarian and psychological assistance through the establishment of three Help Centres for those affected, which provided basic needs such as water, food and shelter and aided in issuing copies of personal documents such as ID's and birth certificates (Vale – Webpage "Vale begins construction of bridge");</li> <li>• Humanitarian Aid Committee, which is constituted by social workers and psychologists specialized in trauma and disaster, to provide care to those affected (Vale – Webpage "Vale announces new emergency measures");</li> </ul>



	<ul style="list-style-type: none"> <li>• Funeral assistance (Vale – Webpage “Vale begins construction of bridge);</li> <li>• Water for human consumption for people affected, covering farmers and families mapped by Vale, the Department of Agriculture of Brumadinho and EMATER (Empresa de Assistência Técnica e Extensão Rural) (Vale – Webpage “Farmers receive water”);</li> <li>• Provisional housing for people who have lost or had to leave their homes due to the rupture of the dam (Vale – Sustainability report 2019).</li> </ul> <p>Therefore, it is not clear whether all affected stakeholders have received appropriate immediate forms of remedy.</p> <p>Sources:  Vale – Webpage <a href="#">“Vale updates on support efforts for the population of Brumadinho”</a>, accessed in May 2022  Vale – Webpage <a href="#">“Vale begins construction of bridge”</a>, accessed in May 2022  Vale – Webpage <a href="#">“Vale announces new emergency measures”</a>, accessed in May 2022  Vale – Webpage <a href="#">“Farmers receive water”, accessed in May 2022</a>  Vale – <a href="#">Sustainability report 2019</a></p>
1	<p><b>(b) The company offered stakeholders the option of receiving economic compensation for losses suffered</b></p> <p><i>Based on the following information, CHRB has assessed the company as having provided economic compensation affected stakeholders as immediate relief. However, the provision of compensation could have been broader in terms of scope.</i></p> <p>Within 12 months after the event, Vale disclosed that it provided the following financial compensation to the affected stakeholders:</p> <ul style="list-style-type: none"> <li>• A payment of one hundred thousand reais to the families of each missing person/confirmed fatality, regardless of whether they are Vale employees;</li> <li>• Humanitarian financial aid to survivors and those that carried out any rural or commercial activities in the Self-Saving Zone;</li> <li>• The company reached a settlement agreement with public labor prosecutors in July 2019, to indemnify workers that were based at the dam or were otherwise victims of the dam rupture. The company states that it provided “for the period of three years from the date of the dam rupture, with the possibility of conversion of this stability right into the proportional amount of money that these employees and outsourced workers would have received until the date of completion of such three-year period (i.e. January 25, 2022). Spouses or companions and parents of deceased workers will be granted lifetime health insurance and children of deceased workers will be granted health insurance, until the age of 25. As of March 31, 2020, we entered into 615 indemnification agreements with individuals or groups pursuant to this settlement agreement, corresponding to 1,578 beneficiaries and 244 families of deceased workers, providing for payments in the total amount of approximately R\$1,007 million. The settlement agreement also provided for the payment of R\$400 million as collective moral damages (danos morais coletivos), which we fully paid in 2019” (UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington - Form 20-F ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934, 4);</li> <li>• In April 2019, Vale entered into an agreement with the public defenders’ office of the state of Minas Gerais to “permit those affected by the dam rupture to join individual or family group out-of-court settlement agreements for the indemnification of property, and other economic and personal damages (danos morais) sustained by affected persons. This agreement establishes the basis for a wide range of indemnification payments. As of March 31, 2020, we entered into 2,267 indemnification agreements with individuals or groups, corresponding to 4,898 beneficiaries, providing for payments in the amount of approximately R\$857 million” (UNITED STATES SECURITIES AND EXCHANGE</li> </ul>

COMMISSION Washington - Form 20-F ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934, 4);

- Vale "entered into 12 other agreements with authorities to cover specific topics, such as (ii) emergency payments to families relocated in Barao de Cocais and for the ~ Pataxos indigenous community" (UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington - Form 20-F ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934).
- As of 2/26/22, Vale provided individual indemnity (5.414 agreements involving 11.076 people) and workers' indemnity (1.478 agreements involving covering 2056 people) (Vale – Webpage 'Indemnity')
- "In October 2021, Vale concluded the escrow deposit of the total amount foreseen for the Income Transfer Program - R\$ 4.4 billion - adjusted by the IPCA until August 2021 and deducting operating costs and emergency payments between June and October 2021, as provided for in the Full Reparation Agreement signed in February this year between the Government of Minas Gerais, Federal and State Public Prosecution Offices, State Public Defender's Office and the company. This is the definitive solution for the emergency payment made by Vale to those affected by the collapse of the Brumadinho dam. This is the definitive solution for the emergency payment made by Vale to those affected by the collapse of the Brumadinho dam. As of November 1st, the terms of the new Income Transfer Program, created and managed by the Justice Institutions, without the participation of Vale, will take effect. The Justice Institutions are responsible for defining participation criteria, payments and program management." (Vale – Webpage 'Indemnity')

While the company disclosed evidence of providing economic compensation to affected stakeholders, third-party sources highlight that some affected stakeholders were not covered by these arrangements. An article by IndustriAll, shared through the Business and Human Rights Resource Centre, states "Last year, in response to a civil suit brought against Vale by the workers' union Sindicato Metabase Brumadinho, a labour court ordered Vale to pay R\$1million (US\$200,000) compensation to the families of Vale employees. The disaster killed 270 people, but the action only benefits the families of 131 workers directly hired by Vale and does not include subcontracted workers. In a shocking demonstration of insensitivity, Vale, a company which according to the Brumadinho metalworkers' union earns R\$1 million in 255 seconds, has appealed the decision, claiming that the amount of compensation owed to the victims is 'absurd" (IndustriAll -Three years after Brumadinho tragedy, justice and accountability still elude the victims, January 2022).

Sources:

UNITED STATES SECURITIES AND EXCHANGE COMMISSION – April 2020, [Form 20-F, ANNUAL REPORT PURSUANT TO SECTION 13 OR 15\(d\) OF THE SECURITIES EXCHANGE ACT OF 1934, April 2020](#)

Vale – Webpage '[Indemnity](#)'

IndustriAll - [Three years after Brumadinho tragedy, justice and accountability still elude the victims, January 2022](#)

**Total score: 9 / 18**

## 24 months after the event

<b>4. The company sets out clearly how it provides for or cooperates in longer-term remediation programs to and with victims and their communities as appropriate in a manner that is acceptable to the overwhelming majority of them and co-operates fully with any legal or administrative procedures designed to deliver a remedy to victims</b>	
<b>2</b>	<p><b>(a) The company sets out clearly how it provides for or cooperates in longer-term remediation programs to and with victims and their communities</b></p> <p><i>Based on the following information, CHRB has assessed the company as having set out clearly how it provides for or cooperates in longer-term remediation programs to and with victims and their communities.</i></p> <p>Vale's remediation efforts are guided by the "Full Reparation Agreement", which was signed by Vale and the authorities of the Minas Gerais state government and entered into force in February 2021 (Reparation Report July 2021, pp. 4, 27). The agreement "reinforces the commitment to fully repair the environmental and social damage resulting from the breach of the B1 dam, in Brumadinho. The mediation process was conducted by the Court of Appeals of Minas Gerais, through the Justice Center for the Settlement of Conflicts and Second Tier Citizenship. The agreement includes socio-economic and socio-environmental repair projects to mitigate the impacts of the dam breach on the affected State and regions" (Reparation Report March 2021, p. 3).</p> <p>Since September 2019, Vale has released 8 "Reparation Reports" to report on its remedial actions. As of April 2023, the last Reparation Report dates from the second semester of 2022 (Vale - Webpage 'Reparation'). In its July and December 2021 Reparation Reports, over two years after the dam collapse, the company disclosed various long-term reparation actions and plans in relation to the dam collapse. The reparation framework consists of Programs for Socioeconomic Reparation; Social and Environmental Reparation Programs; Mobility Programs and Programs for Reinforcing Public Service; and other obligations of the Framework Agreement of Integral Reparation (Reparation Report 2<sup>nd</sup> Semester 2022, 13-37). As the list of programs is quite extensive in scope and time, the CHRB team has summarised below some of the initiatives:</p> <ul style="list-style-type: none"><li>• A program of income transfer to the affected population, replacing the payment of emergency aid that was paid immediately following the accident (Reparation Report July 2021, pp. 4, 27);</li><li>• Public consultations with the residents of the 26 municipalities affected by the dam breach through which affected individuals could indicate areas of priority for investment in socio-economic reparation projects in their municipality;</li><li>• Socio-economic projects such as tourism, language training, territorial projects; civil or labor compensation agreements; and open communication channels with the community (Reparation Report December 2021, pp. 14, 15, 22, 33);</li><li>• On the environmental side, the company discloses initiatives on water security; quality and monitoring of water in the Paraopeba river, and forestry recovery (Reparation Report December 2021, pp. 40, 44);</li><li>• Furthermore, more than R\$ 40 million will be invested in various areas such as education, health care, infrastructure and urbanism, economic development, and public safety (Reparation Report December 2021, 59). The report does not disclose over what timeframe the investment will be completed;</li><li>• Finally, the company discloses progress and timelines for the Integral Reparation Program (Reparation Report December 2021, pp. 60, 61; Webinar ESG - Brumadinho and Culture Transformation, 30).</li></ul> <p>Sources: Vale – Webpage '<a href="#">Reparation</a>'</p>

	<p>Vale - <a href="#">Reparation Report March 2021</a></p> <p>Vale - <a href="#">Reparation Report July 2021</a></p> <p>Vale - <a href="#">Reparation Report December 2021</a></p> <p>Vale - <a href="#">Reparation Report 2<sup>nd</sup> Semester 2022</a></p> <p>Vale- <a href="#">Webinar ESG - Brumadinho and Culture Transformation</a></p>
0	<p><b>(b) The remediation programs are accepted by the overwhelming majority of the affected stakeholders</b></p> <p><i>No quantitative data has been found in the public domain to support a conclusion that most of the affected stakeholders have accepted the compensation as adequate. In addition, the following external sources suggest that the remediation programs have not been accepted by some stakeholders.</i></p> <p>While the company has disclosed qualitative evidence from affected stakeholders' interviews on the acceptance of the remediation programs in the various Reparations Reports, it lacks relevant disclosure that proves the programs have been accepted by the majority of the affected stakeholders.</p> <p>On 22 October 2020, 150 demonstrators staged a sit-in at the administration building of Vale in the city of Brumadinho to protest their treatment of nearly two years after a deadly mining waste dam collapsed there, killing about 270 people. The protesters are demanding an extension of emergency aid payments for about 100,000 people affected by the disaster, while also alleging that miners have failed to provide clean drinking water after mining waste contaminated local water sources. Protesters said aid payments were essential to support low-income communities and river dwellers whose livelihoods were destroyed by the dam collapse (Reuters, 23 October 2020).</p> <p>Sources: Reuters - <a href="#">Protesters sit-in at Brazil miner Vale dam burst site, demand aid extension, 23 October 2020</a></p>
2	<p><b>(c) The company cooperates with any legal or administrative procedures to deliver the remedies</b></p> <p><i>Based on the following information, CHRB has assessed the company as having collaborated with legal or administrative procedures to deliver the remedies.</i></p> <p>The company's various long-term reparation actions and plans are guided by the "Full Reparation Agreement", which was entered into in February 2021 by the Minas Gerais state government, the State and Federal Public Prosecutor's Office, the Public Defender's Office, and Vale. The agreement specifies Included among the initiatives carried out throughout this second half of 2021 was the payment of R\$ 4.4 billion allocated towards the implementation of the Income Transfer Program (PTR), which is governed by the legal system institutions and operated by the Getúlio Vargas Foundation. PTR is a definitive solution for emergency aid payments provided by Vale to those affected by the dam collapse in Brumadinho" (Reparation Report, p. 4).</p> <p>In the most updated Reparation Report, the company discloses the amounts of the Reparation Agreement which have been executed as well as those that are still outstanding (Reparation Report 2nd semester 2022, p. 14).</p> <p>Sources: Vale - <a href="#">Reparation Report December 2021</a> Vale - <a href="#">Reparation Report 2nd semester 2022</a></p>

5. The company **describes longer-term changes to its systems, processes, and practices to prevent similar adverse impacts in the future, which have been reviewed by competent authorities, experts, or other relevant stakeholder**

**2 (a) The company describes longer-term changes to its systems, processes and practices**

*Based on the following information, CHRB has assessed the company as having described various long-term changes in relation to the Control and Management of Dams, Global Industry Standards on Tailings Management, and progress on various initiatives.*

Vale has invested in the expansion of the Safety Management Systems for water reservoirs, tailings storage facilities, sediment ponds, mine waste storage facilities, earthen stacks, waste rock dumps, open pits and underground structures which are considered critical assets. It has also developed Critical Control Systems for geotechnical risks. Some of the related adopted changes include:

- The creation of the role of Engineer of Record (EoR), responsible for providing permanent technical oversee throughout the life of the structure for each critical asset (Vale Policy for Dam Safety and Geotechnical Mining Structures);
- The registration of documents and historical technical analyses of all dams' physical conditions (Vale Policy for Dam Safety and Geotechnical Mining Structures);
- The construction of backup dams downstream of facilities at a critical level and/or providing additional reinforcement (Vale Policy for Dam Safety and Geotechnical Mining Structures);
- The decommission of upstream dams. Vale expects to end 2022 with 40% of its structures of this type eliminated. This means that 12 of the 30 dams mapped will already be de-characterized (Webpage - ESG Control and Management of dams);
- The establishment of an Executive Committee for geotechnical risks to continuously improve the management of these critical assets (Webpage - ESG Control and Management of dams).
- Increase the monitoring of its structures and the assessment of their conservation status. For instance, three Geotechnical Monitoring Centers (CMG) have been established and monitor the dams 24/7. Additionally, Vale disclosed the technical document Dam Safety Plan (PSB) -filed with city halls and Civil Defenses (municipal, state and federal) which defines immediate actions in case of emergency (Webpage - ESG Control and Management of dams).

During 2019 and 2020, Vale stated that it worked closely with the International Council on Mining and Metals (ICMM) and participated actively in the Global Industry Standard on Tailings Management ("GISTM") to improve safety through all phases of the tailings storage facilities lifecycle. In 2020, the company committed to implement the GISTM by 2025. As part of this effort, Vale's Board of Directors approved in 2020 a new Policy for Dam Safety and Geotechnical Mining Structure.

Vale plans to invest in alternatives that allow wet processing operations to be replaced by safer and more sustainable processes, among others:

- 70% of iron ore production with dry processing by 2025;
- US\$ 2.3 billion in investments between 2020 and 2025 to increase the use of filtration and dry stacking to 16% of total production increased development of new technologies such as dry iron ore magnetic separation, from New Steel (company acquired in 2018).

Sources:

Vale - [Policy for Dam Safety and Geotechnical Mining Structures](#)

Webpage - [ESG Control and Management of dams](#)

1	<p><b>(b) The long-term changes have been reviewed by competent authorities, experts, or other relevant stakeholders</b></p> <p><i>Based on the following information, CHRB has assessed the company as having conducted extensive reviews, it is not clear that all the long-term changes have been reviewed by external authorities.</i></p> <p>As part of the GISTM adherence timeline, Vale started the gap-assessment process in mid-2021 through a self-assessment conducted for all Tailings Storage Facilities (TSF's). This self-review has been supported by an external gap-assessment service which audited a sample of 10 selected TSF's. This work elaborated on action plans to comply with the GISTM requirements. Vale disclosed the external gap assessment exercise which concluded that the process used for Vale's self-assessment is satisfactory and can be used as a baseline to fill the gaps identified in the self-assessment stage (Webpage- Control and management of dams).</p> <p>Furthermore, Vale adheres to periodic reviews of its dams physical and hydraulic safety conditions, carried out by external and independent authorities which comply with Brazilian legal requirements and commitments established with Brazilian authorities, such as the Public Prosecutors' Office and the National Mining Agency (ANM). The main reviews are:</p> <ul style="list-style-type: none"> <li>- A Regular Safety Inspection Report - RISR, with issuance of a Declaration of Stability Condition - DCE, in compliance with the legal requirements;</li> <li>- An Independent audit, as per commitments entered into with the Public Prosecutors' Office. (Webpage- Dam performance)</li> </ul> <p>Sources:</p> <p>Webpage - <a href="#">Control and management of dams</a></p> <p>Webpage - <a href="#">Dam performance</a></p>
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<p>6. The company <b>initiates or co-operates fully with industry-led initiatives, government, and other stakeholders to address the causes and consequences of the event to support wider action.</b> The company <b>accepts and sets out clearly how it is acting upon the conclusions</b> of any such reviews/proposals as far as its operations are concerned.</p>	
0	<p><b>(a) The company initiates industry-led initiatives, government, and other stakeholders to address the causes and consequences of the event to support wider action</b></p> <p><i>Although the company participated in the GISTM, it did not initiate the process. No other evidence was found of other relevant initiatives initiated by Vale.</i></p>
1	<p><b>(b) The company co-operates fully with industry-led initiatives, government, and other stakeholders to address the causes and consequences of the event to support wider action</b></p> <p><i>Based on the following information, CHRB has assessed the company as having co-operated with industry-led initiatives to address the causes of the event. However, no relevant disclosure on cooperation with governmental or other stakeholders' initiatives has been found.</i></p> <p>As described in the previous remedial step, Vale participated actively in the Global Industry Standard on Tailings Management ("GISTM"). In addition, in June 2019, the company responded to the urgent request for information concerning tailings dam management by the Investor Mining &amp; Tailings Safety Initiative.</p>

	<p>However, the company has the opportunity to engage with governmental bodies and/or relevant stakeholders on initiatives linked to dams' safety and management in order to actively support positive changes.</p> <p>Sources:  Webpage – <a href="#">Control and Management of dams</a>  Powerpoint - <a href="#">Vale Day 2022</a></p>
<b>1</b>	<p><b>(c) The company accepts and sets out clearly how it is acting upon the conclusions of any such reviews/proposals as far as its operations are concerned</b></p> <p><i>Based on the following information, CHRB has assessed the company as having acted upon its commitments towards implementing the GISTM. However, it does not disclose more details on the processes in place to adhering to those standards.</i></p> <p>As of 5 August 2020, Vale and all ICMM members are committed to implementing the GISTM. All tailings' facilities operated by Vale with "Extreme" or "Very high" potential consequences will be in conformance with the GISTM by 5 August 2023. All other tailings facilities operated by Vale not in a state of safe closure will be in conformance with the GISTM by 5 August 2025. Vale's Board of Directors approved, in October 2020, a new Policy for Dam Safety and Geotechnical Mining Structure, which refers to the GISTM.</p> <p>Sources:  Webpage – <a href="#">Control and Management of dams</a></p>

**Total score: 9 / 18**

**Final score**

Vale obtained a score of 18 / 36 points for the full Special Process for Major Catastrophic Events assessment. Therefore, the company's score cap will be increased from 50% to 75%. For the company's assessment in the 2023 Corporate Human Rights Benchmark, its score will therefore be capped at 75%.