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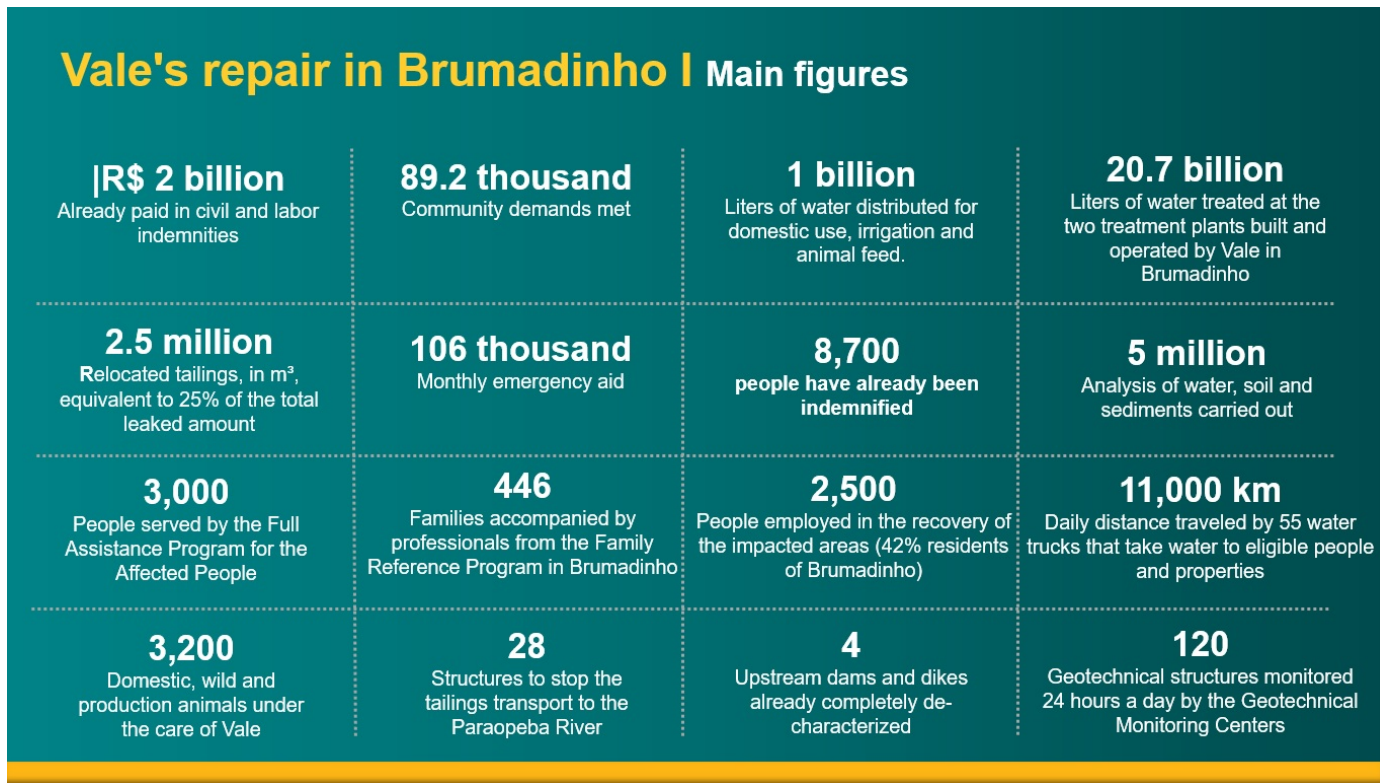


As the pandemic advances, Vale reinforces protection measures and maintains a schedule for full repair in Brumadinho

Despite the immense challenges brought about by the Covid-19 pandemic, Vale maintained its commitments in Brumadinho and the region, adapted procedures to ensure the health and safety of all those involved and remains committed to fully repairing those affected and communities impacted by the disruption of dam B1.

Since the first hours after the breach, two years ago, the company has taken care of the impacted families, providing assistance to restore their dignity, well-being and livelihoods. In addition to meeting the most immediate needs of the affected people and regions, it is also working to deliver projects that promote lasting change to recover communities and benefit the population effectively. Repairing damage caused fairly and quickly is essential, and Vale has prioritized initiatives and resources for this purpose.

Among the highlights of 2020 there are advances in indemnity agreements and in the construction of the water collection system in the Paraopeba River, which is already about to enter a testing period. Also, aiming at a possible agreement for the benefit of the entire State, especially of the affected populations, since October 2020, Vale has maintained a constructive dialogue with the Government of Minas Gerais and the institutions of Justice. Negotiations continue to advance at the Judicial Center for the Resolution of Conflicts and Citizenship (CEJUSC), the mediation body of the Court of Justice of Minas Gerais. The meetings have been intensified this January and it is expected that the agreement will be concluded early 2021.



Brumadinho Repair - Main numbers

Caring for people is our main focus

This remains one of Vale's main focus areas of activity. Professionals from the Family Reference Program support 446 families in Brumadinho. Another 300 from the impacted territories also receive assistance. The objective is to guarantee assistance to people directly affected by the breach. In addition, to date, more than 64,000 medical visits and psychosocial care services have been provided to the population.

Implemented in 2019 in the municipalities of Brumadinho, Mário Campos and Sarzedo, the Ciclo Saúde ("Health Cycle") program was extended to eight other municipalities in 2020: Inhaúma, Paraopeba, Pará de Minas, Pompéu, São Joaquim de Bicas, Barão de Cocais, Itabirito and Nova Lima (Macacos). Since its implementation, more than 800 professionals have been trained through 58 workshops. In addition, the program equipped 122 UBSs (Basic Health Units) with over 3,000 pieces of equipment.

We support searches for 11 people not yet found

Vale understands that it is necessary to complete the search process for the 11 people not yet found. To date, 259 have been identified (123 own employees, 117 third-party employees and 19 residents of the region). The company continues to fully support the Fire Department in the searches and the Civil Police in the identification work.

More than 8,700 people have already been indemnified

Committed to indemnifying fairly and quickly all those affected, the company has already paid more than R\$ 2 billion in indemnities. In all, 8,700 people have already signed indemnity agreements with Vale, with 1,600 through labor courts and 7,100 in civil indemnities. In total, more than 3,800 agreements were signed.

The company also makes available to all the indemnified people the Full Assistance Program for the Affected People, which offers, during two years, psychosocial support, financial education and recommendations on the purchase of real estate and productive resumption. This allows families to make plans for the future, in face of new economic and socio-environmental conditions. More than 3,000 people have already joined the program, which is voluntary and free.

In addition, the monthly emergency payment continues to be paid to over one hundred thousand people living in Brumadinho and up to 1 km from the Paraopeba riverbed. The resources allocated to emergency assistance exceed R\$ 1.7 billion.



Workshop during the Health Cycle program

25% of all leaked tailings have already been relocated

The relocation of tailings is directly linked to the searches carried out by the firefighters, which are always planned and executed together with the Fire Department. The work is expected to be completed by the end of 2025. Out of the estimated 9 million cubic meters of tailings that leaked from the dam, 2.3 million (25% of the total) have already been handled and started to be disposed of in the Córrego do Feijão mine pit (due to the December accident, activities in the pit are temporarily paralyzed). Before the final disposal, the tailings also go through a screening process to separate waste, such as metals, rubber and wood.

Paraopeba River shows signs of improvement in several parameters

Vale continues to move forward with actions that will allow the recovery of the Paraopeba River and the impacted biodiversity on the fronts of containment, removal, disposal of tailings and dredging of the river, which are essential activities for the Paraopeba waters to return to their conditions prior to the breach.

Still in 2019, the company executed a set of emergency works that stopped new shipments to the river. In addition to improving the environment, these works contributed to increase Brumadinho's economy, as there are currently around 2,500 workers working to recover the impacted areas. Out of this total, 42% live in the municipality itself.

Regarding water quality, evaluations over the past few months show that the river and its tributaries have been showing signs of improvement in several physical-chemical parameters. The joint analysis of the parameters dissolved aluminum, dissolved iron and total manganese, elements that can be directly correlated to the breach, demonstrates that the water

quality is in transition, with a progressive reduction of the concentrations between the rainy and drought periods at certain points when comparing 2019 to 2020. It is important to highlight that the improvement currently depends on the stretch, point, parameter and comparison reference.

In addition, the company completed an important stage of the Marco Zero project, which environmentally rehabilitated the stretch of the Ferro-Carvão stream between the Alberto Flores bridge and the confluence with the Paraopeba river in Brumadinho. The watercourse had its original layout reconfigured and its surrounding area restored, enabling the recovery of biodiversity.

Project will accelerate reforestation and biodiversity recovery

Through a partnership with the Federal University of Viçosa, Vale is rescuing the DNA of native plants and creating copies to start the reforestation process, which should start in the first months of 2021. Seedlings that could take more than eight years to bloom should start this process in between six and 12 months, which will effectively contribute to accelerate the recovery of local biodiversity. The company has also planted more than 4,000 seedlings of native species in riparian forests in the region.

Animals are treated and reintegrated into nature or donated to new homes

Vale maintains eight farms for the identification, care and shelter of approximately 3,200 domestic, wild and production animals. The structures are located in Brumadinho, which also has a veterinary hospital; Macacos; Itabirito; Itabira and Barão de Cocais. The treatment and care of animals is carried out following sanitary and handling protocols recommended by the Regional Council of Veterinary Medicine, the Federal Council of Biology, the Federal University of Minas Gerais and competent environmental bodies (IMA, IEF, IBAMA, among others) and audited by an independent company designated by the Public Ministry of Minas Gerais.

In 2020, about 135 dogs and cats were adopted. With the face-to-face events for adoption suspended, due to Covid-19, the site "Take me home", received more than 31,000 simultaneous accesses showing to be an important channel for the success of the adoptions. About 110 animals are still waiting for a new home and you can find them on the website: www.vale.com/melevapracasa.

Another 40 wild animals impacted by the breach, found in construction sites or that were at risk in the communities were reintegrated into nature throughout the year. They were treated clinically, welcomed and rehabilitated, before returning to their natural environment. The action is part of the Fauna Protection Plan, presented by Vale and approved by the competent public authorities.



Seedlings that could take more than eight years to bloom should start this process between six and twelve months

Strengthening the economy in the impacted municipalities

In the context of socioeconomic reparations, Vale believes it is necessary to create opportunities for the diversification of local realities, expanding the generation of jobs and income for the affected populations. The focus of this work is to ensure the social, economic and environmental sustainability of the affected territories, through the support of government initiatives that aim at the development of local vocations, such as investments in the areas of agriculture, tourism, sustainability and the environment.

An example of this focus is the support being given to impacted farmers in Brumadinho and Mário Campos municipalities. Their properties are being monitored by multi-disciplinary teams so that they can expand their productive activities, generating more jobs and income. This is the Agriculture Promotion Program, which seeks to develop rural activity, especially family-based activities, in these locations. Among the actions is the expansion of knowledge, tracking and technical, organizational and infrastructure improvements. The proposal also intends to expand access to the retail chain in the Metropolitan Region of Belo Horizonte.

Park Territory and Memorial to Victims

Launched in December 2019, the Territory-Park project in Córrego do Feijão - an initiative of the company that intends to bring infrastructure and the opportunity to generate jobs and income for the local population - follows its implementation schedule, with delivery of the first public equipments in the first half of 2021.

As for the Memorial, it is the result of frequent meetings between Vale, representatives of the government of Minas Gerais and family members of the victims. As it is a topic that is sensitive to everyone, the meetings take place periodically and take into account a process of active listening to the community, seeking ways to meet the needs and demands of those affected.

Paraopeba pipeline system is about to start operating

Vale remains committed to concluding the works and testing of the new water collection system from the Paraopeba River, which is being implemented in the municipality of Brumadinho, at an unimpacted stretch of the river. The commissioning and testing phase should begin in the coming weeks, with an initial flow of 1,000 l / s, gradually increasing until reaching the nominal flow of 5,000 l / s.

The operation of the new system at full capacity will restore the same flow (5,000 l / s) of the water withdrawal system currently suspended on the Paraopeba River. At the same time, Vale implemented a set of emergency actions to contribute to the water supply by Copasa and strengthen the water system that serves the Metropolitan Region of Belo Horizonte, such as the reactivation of large wells in Vetor Norte and the interconnection of the Velhas and Paraopeba systems.

Water for eligible people and assistance for rural producers

Vale has spared no efforts to ensure that people impacted by the interruption of the water withdrawal system on the Paraopeba River always have water available in sufficient quantity, as well as to enable the continuity of activities for affected rural producers.

Since the breach, 2,262 visits and more than 15,000 visits have been made to identify the volume of water needed to fully and regularly provide eligible families and rural producers along the 250 kilometers of river (from Brumadinho to Pompéu). In January 2021, we surpassed the mark of 1 billion liters of water distributed for domestic use, irrigation and animal feed.

Water storage conditions have also been improved. Vale has already donated 1,696 new water tanks, 194 hydraulic pumps and made the hydraulic interconnection of 609 properties. 250 filters have also been installed so that people who have underground wells can better treat their own water.

The company also installed around 360 water, surface and underground (water wells) water withdrawal systems to supply the population of the 22 municipalities impacted by the breach, and also implemented water treatment systems to adapt to drinking standards.

For rural producers along the channel of the Paraopeba River, approximately 16,000 animals, which are directly related to the productivity and income of their activities, have already received more than 340 million liters of water for drinking. 893 drinking fountains were also installed and approximately 80,000 tons of feed were supplied. Another action was the installation of 605,000 meters of fencing to avoid the animals' contact with the water of the Paraopeba River. In addition, for irrigation of the plantations alone, producers received more than 470 million liters of water.

Out of all quantity of water distributed by Vale since January 2019, about 80% was destined for animal consumption and irrigation, which enabled small producers affected to continue with their production activities.

Distributed water is treated by Copasa and reanalyzed before being distributed

There are 55 water trucks that travel, together, 11,000 kilometers a day, on average, taking water to the eligible people and to maintain productive activities (animal feed and irrigation), in addition to the distribution of bales of mineral water for domestic use. All are cleaned monthly by specialized companies. The distributed water is captured, already treated by Copasa, in two treatment plants, in Juatuba and Curvelo. In addition, before each delivery, Vale analyzes the chlorine content and also analyzes other parameters, such as color, pH, total coliforms and E.Coli by sampling in accredited and independent laboratories. In case of violations of any parameter, the water is immediately discharged and the truck sanitized again.

Beware of indigenous people

The social well-being of the Pataxó and Pataxó HumHãHãe indigenous people of the Naô Xohã village, in São Joaquim de Bicas, as well as those who chose to move to Belo Horizonte, also receives continuous care actions from Vale. The premise of this work is the permanent dialogue with the chiefs, indigenous leaders and with the competent authorities of care for the indigenous people.

Among other initiatives, the company guarantees the weekly supply of 1,500 liters of mineral water to the village, as well as installing a 10,000 liter water tank and a distribution network to bring water to the taps of each house. Local supply is carried out by Copasa and monthly expenses maintained by Vale.

In the healthcare area, since January 2019, indigenous people have received primary care and psychosocial support, in addition to carrying out examinations and specialized consultations. More than 200 medical and psychiatric, nursing and psychological consultations have been held, more than 70 vaccinated people and more than 60 exams, in addition to prenatal actions, family planning, childcare and educational activities.

The indigenous people who belonged to the village at the time of the breach, including those who moved to Belo Horizonte, have received the monthly emergency payment since April 2019, as agreed in the TAP-E, signed with the Federal Public Ministry (MPF), Fundação Nacional do Índio (Funai), chief and indigenous leaders, with whom the company continues to discuss the matter. They also receive the value of a basic basket, stipulated by Dieese (Inter-Union Department of Statistics and Socioeconomic Studies), per family nucleus and another R\$ 110 corresponding to the freight for the purchase of food.

Drinking water is re-analyzed before being distributed

Dams' de-characterization advances: four have already been completed

Vale has endeavored to correct the direction of its dam management and the company does not refrain from giving wide visibility to these essential advances in order to reach a new performance pact with Brazilian society. After the breach of

B1, the company started the process of de-characterization of all its dams with upstream elevation.

The de-characterization plan was updated in September 2020, based on information and studies that are continuously being updated. It currently considers 29 geotechnical structures, comprising 14 dams, 13 dikes and two drained stacks. Plan information is updated regularly at www.vale.com/esg.

The first to be completely de-characterized was 8B, at the Águas Claras mine in Nova Lima, still in 2019, followed by two structures in Pará. The de-characterization of the Rio do Peixe dike, the internal structure of the Pontal Dam, in Itabira, has also been completed and the Fernandinho dam, at the Abóboras mine, in the Vargem Grande Complex, in Nova Lima, is expected to be completed in the coming months.

Last year, we started the first phase of the de-characterization of the B3 / B4 dam, of the Mar Azul mine, in Macacos, and the Doutor dam, of the Timbopeba mine, in Ouro Preto. In addition, preparatory actions are already underway to start de-characterizing the Sul Superior (Barão de Cocais), Forquilhas (Itabirito), Vargem Grande (Nova Lima) and Dike 2 (internal structure of the Pontal Dam, in Itabira).

So far, the works to de-characterize the upstream structures and the containment of the dams at level 3 (Sul Superior and B3 / B4, both completed, and Forquilhas, scheduled for completion in April) have generated around 8,000 direct jobs, and the majority of workers are from the regions themselves.

Vale reinforces that all of its dams are permanently monitored by two modern Geotechnical Monitoring Centers (CMG) in Minas Gerais, in addition to field inspections, maintenance, radar monitoring, robotic stations, video cameras with artificial intelligence and instruments, such as manual and automated piezometers, inspection drones, satellite radar and geophones (sensors to measure seismic waves).

More information



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