

A circular inset image showing three workers in profile, looking towards the right. They are wearing yellow hard hats with 'SAMARCO' logos and red MSA earmuffs. The worker on the left is a woman with her arms crossed, wearing a yellow and blue high-visibility shirt. The worker in the middle is a man with a beard, wearing a yellow and blue high-visibility shirt. The worker on the right is a man wearing a blue button-down shirt. They are all smiling slightly. The background of the circular frame shows an industrial setting with wooden structures.

2021

SUSTAINABILITY  
REPORT



# Summary

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*Employees  
who work in the  
Ubu Complex,  
Anchieta (ES)*

# Welcome



# About the report

GRI 102-10, 102-45, 102-46, 102-48, 102-49, 102-50, 102-51, 102-52, 102-53

Welcome to *Samarco's 2021 Sustainability Report*.

In this document, we present our main financial, social, environmental and governance indicators that reflect the Company's journey during 2021 – the first complete twelve-month cycle since the resumption of operations.

As in previous years, the report encompasses the period from January 1st to December 31st and has as its scope the operations described in our Financial Statements (FS), available here. The financial data are in line with the accounting assumptions of the FS, including investments, business performance and information on the Company's economic-financial rebalancing process.

In order to comprise the most relevant financial and non-financial topics for Samarco – see more details about our materiality below – this report is based on a series of methodologies and guidelines for communicating results. They are: the Global Reporting Initiative (GRI) Standards, Essential agreement option; the Value Reporting Foundation's Integrated Reporting Framework; and the ten Mining Principles of the International Council on Mining and Metals (ICMM).

We also report on our impacts, projects and contributions related to the Ten Principles of the Global Compact and the United Nations Sustainable Development Goals (SDGs), referencing them through icons in the chapter openings and in the indicator summary.

Unlike previous years, our 2021 report covers an operational context for Samarco – which has been operating since December 2020 at 26% of its total capacity, following the assumptions of the process of gradual resumption of activities. As a result, comparative bases between the indicators can be jeopardized and are detailed in the texts and graphs.


We also reinforce that the scope of this report covers Samarco's direct operations and therefore it does not report on the socio-environmental and socioeconomic programs for the remediation and compensation of the impacts caused by the collapse of the Fundão dam. Full details of these programs can be found in the activity reports of the Renova Foundation, created in 2016 to carry out the 42 programs provided for in the TTAC for damage remediation. Under the terms of the TTAC, Samarco is primarily liable for contributions to the Renova Foundation, while the shareholders are secondarily liable. Access them at <https://www.fundacaorenova.org/arquivos-e-relatorios>.

Our goal in this document is to outline transparent relationships through open dialogue with employees, customers, host communities, partners, suppliers, authorities and society. This is part of our strategy and the Samarco we want to build today and into the future. If you have any questions about the content of this report, please contact us at email [relacionamento@samarco.com](mailto:relacionamento@samarco.com) or by phone 0800 033 8485.


# OUR REFERENCES THROUGHOUT THE REPORT

## GRI and capitals <IR>


By means of codes and icons such as those shown to the side, we indicate the excerpts of the report that address strategic themes of our performance and our approach regarding the use and transformation of resources.




Manufactured




Social




Human



Finance



Natural



Intellectual



UNGC

We refined our list of ESG-relevant topics through consultation with the various stakeholders

## SDGs

Our material sustainability themes and ESG commitments speak to some of the United Nations' Sustainable Development Goals. In addition to being indicated in the summary of GRI indicators at the end of the report, we point out the SDGs addressed in the chapters using the 2030 Agenda icons.

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS





## ICMM

This agenda, specific to our industry and crucial for Samarco's evolution in the coming years, consists of ten principles that are referenced throughout the document by means of icons.

- 

**1. RESPECT**  
and support internationally recognized human rights in your area of influence.



**2. ENSURE**  
that the company does not participate in human rights violations.
- 

**3. SUPPORT**  
freedom of association and recognize the right to collective bargaining.



**4. ELIMINATE**  
all forms of forced or compulsory labor.
- 

**5. EFFECTIVELY ERADICATE**  
all forms of child labor from your production chain.



**6. ENCOURAGE**  
practices that eliminate any type of employment discrimination.
- 

**7. TAKE**  
a preventive, responsible and proactive approach to environmental challenges.



**8. DEVELOP**  
initiatives and practices to promote and disseminate social and environmental responsibility.
- 

**9. ENCOURAGE**  
the development and diffusion of environmentally responsible technologies.



**10. COMBAT**  
corruption in all its forms, including extortion and bribery.

## Global Compact

The ten labor, human rights, environmental and anti-corruption principles on the United Nations agenda are addressed in the report – which is also our official Communication on Progress (COP) on the matter.

- 

1 ETHICAL BUSINESS



2 DECISION-MAKING



3 HUMAN RIGHTS



4 RISK MANAGEMENT



5 HEALTH AND SAFETY



6 ENVIRONMENTAL PERFORMANCE



7 CONSERVATION OF BIODIVERSITY



8 RESPONSIBLE PRODUCTION



9 SOCIAL PERFORMANCE



10 STAKEHOLDER ENGAGEMENT

# OUR MATERIALITY

GRI 102-21, 102-40, 102-42, 102-43, 102-44, 102-47

In 2021, Samarco carried out a study to define economic, environmental, social and governance issues from the perspective of the business and our stakeholders.

This process, called materiality, was based on GRI standards and involved the participation of more than 360 people, analysis of sector studies and sector documents and the direct involvement of our Executive Board. As a result, it structured the current list of material topics for the Company, based on four steps:

## Identification

analysis of seven sectoral studies, of the position statement/performance of five companies in the sector and of more than ten internal documents of Samarco. As a result, we defined a long list of 17 themes;

## Inquiry and engagement

we have conducted online panels, interviews and questionnaire rounds with shareholders, customers, employees, executives, suppliers, contractors, research institutions, government and community representatives. 362 people were mobilized to analyze and consider the relevance of the themes;

## Analysis / Validation

the final steps were necessary to measure and cross-reference the perception of stakeholders, with weights calculated according to the quality of the inquiry and the intensity of their relationship with Samarco. We have closed seven material topics, with another six classified for internal management and monitoring. The process was validated by the General Sustainability Management and the Executive Board.

Check the list of material topics, their relationship with Samarco's sustainability pillars and their breakdown into topics, indicators and global agendas in the table below.

We reference our progress on the Global Compact through this report



Off-road truck.  
Alegria Mine -  
Germano, Mariana  
and Ouro Preto  
Complex (MG)



Sustainability pillars	Material topics	Our focus	Audiences that prioritize the topic	The organization's involvement with the impacts	Related SDGs	ICMM Principles	GRI Indicators	OTHER RELEVANT TOPICS that are under our monitoring and management
Organizational culture and governance  Social Relations	Ethics, governance and transparency	Compliance with legislation; compliance programs; anti-corruption and anti-bribery training; response measures to corruption cases; transparency in business and communication; risk and crisis management; position statement on emerging agendas and topics, such as for instance, Covid-19, UN 2030 Agenda, ESG agenda, etc.)	Executive, specialist, customer, supplier, community and institutions	Direct	SDG 12 (12.6) SDG 16 (16.5 and 16.6)	1, 2, 3 e 4	GRI 205-1, 205-2, 205-3, 206-1, 207-1, 207-2, 207-3, 307-1, 415-1, 419-1	<ul style="list-style-type: none"><li>• <b>Management of suppliers and third parties</b> focusing on compliance and qualification of the supply chain</li><li>• <b>Labor practices</b> attention to relations with employees, contractors and entities representing the workers</li><li>• <b>Climate change</b> management of the carbon footprint and climate-related risks and opportunities</li><li>• <b>Occupational health and safety</b> efforts and investments for the lives and integrity of workers</li><li>• <b>Data protection and privacy</b> management aligned with national and international legislation, which guarantees the integrity of the information stored and used by the Company</li><li>• <b>Infrastructure management in impacted communities</b> acting in monitoring and financing remediation and compensation initiatives</li></ul>
Environment + Safety and innovation	Tailings: disposal management and mitigation of impacts caused by the dam collapse	Reliability, safety and stability of dams; removal of tailings from sites Impacted; investments and use of new technologies and equipment aimed at processing or reusing the operation's tailings; decharacterization of the tailings and waste containment dams raised by the upstream method; effluents; management of miscellaneous waste and circular economy; investments and partnerships in research and technology; adoption of industry 4.0 concepts in mining	Executive, specialist, customer, employee, supplier and institutions	Direct	SDG 8 (8.2) SDG 9 (9.4, 9.5 and 9.b) SDG 12 (12.4, 12.5, 12.6 and 12.a)	4, 6 e 7	GRI 203-1, 306-1, 306-2, 306-3, 306-5	
Environment	Management and mitigation of impacts on biodiversity	Use of the soil; prevention, mitigation, rehabilitation and offset of the operation's impacts on terrestrial and aquatic biodiversity; preservation and resumption of areas	Specialist, supplier, community and institutions	Direct	SDG 12 (12.2 and 12.a) SDG 14 (14.1 and 14.2) SDG 15 (15.1, 15.2 and 15.5)	7	GRI 304-1, 304-2, 304-3, 304-4, MM1, MM2	
Social Relations	Community engagement and participation	Social dialogue and understanding of community needs; support and rehabilitation of impacted communities; restoration of the socioeconomic conditions of the impacted regions; job and income generation; fostering the structuring of new businesses less dependent on mining; social and institutional investments; mine closure plan	Executive, supplier, institutions, specialist and community	Direct	SDG 8 (8.3, 8.5, 8.6, 8.7 and 8.8) SDG 11 (11.a) SDG 12 (12.2 and 12.8) SDG 16 (16.6 and 16.7)	3, 9 e 10	GRI 202-2, 203-2, 204-1, 411-1, 413-1, 413-2, MM6, MM10	
Organizational culture and governance	Financial sustainability	Economic-financial feasibility of the business; generation of revenue and capital for allocation to actions for mitigation of impact; business continuity and market consolidation process	Executive, customer and employee	Direct	SDG 8 (8.2 and 8.4) SDG 16 (16.6)	1, 2 e 4	GRI 201-1, 201-3, 201-4	
Safety and innovation	Safe, sustainable and responsible production	Safe, sustainable and responsible resumption of production; operational excellence; guarantee of eco-efficiency and responsible use of resources; quality of our product; accidents prevention; emergency response; innovation in internal processes; investments and partnerships in research and technology; adoption of industry 4.0 technologies in mining; energy efficiency; use of clean renewable energy; water resources management; removal of water and affected sources; recycled and reused water	Executive, specialist, Customer, employee and supplier	Direct	SDG 8 (8.2 and 8.4) SDG 9 (9.1 and 9.4) SDG 12 (12.2, 12.5, 12.6 and 12.a) SDG 13 (13.3)	4, 5, 6, 7 e 8	GRI 302-1, 302-2, 302-3, 302-4, 303-1, 303-2, 303-3, 303-4, 303-5, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7, 403-9, 403-10, MM3	
Organizational culture and governance	Human and organizational development	Knowledge management; incentive to ongoing learning; performance and career development appraisals; training, education and development of employees and contractors; practices in diversity, inclusion and promotion of human rights, measures taken in cases of discrimination.	Executive, employee, supplier, community and institutions	Direct	SDG 4 (4.4 and 4.a) SDG (5.1 and 5.5) SDG 8 (8.3, 8.5, 8.6, 8.7 and 8.8)	3 e 5	GRI 401-1, 401-2, 401-3, 402-1, 404-1, 404-2, 404-3, 405-1, 405-2, 406-1, 410-1, 412-1, 412-2, 412-3	

Note: The impacts occur inside and outside the organization, and there is no specific limitation regarding the topics.



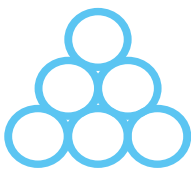
# Message of the CEO

GRI 102-14, 102-15

The year 2021 can be summarized, for all of us at Samarco, as the consolidation of the operational resumption and the progress made along our New Journey.

Ever since taking over as CEO, at a time of intense challenge for all of us, employees and partners, I have recognized the strength and resilience that we cultivate to materialize our values, our culture and our purpose. And it was from the latter – that of carrying out mining differently and in a sustainable manner – that, with all the necessary licenses and authorizations, we began to write a new chapter in our history, with the resumption of our operations.

In the last six years, we have transitioned from an organization with suspended operations, surrounded by uncertainties about its future, with enormous responsibility to finance the remediation of the impacts caused by the Fundão dam collapse, to a company motivated by the commitment to resume operational activities, seeking to carry out mining differently, adopting new technologies for the disposal of tailings, using a confined pit and filtration system for the disposal of dry tailings, which increases our operational safety. The Company restarted on a smaller scale, at 26% of its production capacity, focused on the next steps and on the challenges for the rebalancing of its economic-financial situation and for the gradual resumption of its operations, supported by the social license to operate and the trust of authorities, the communities that receive us and our partners.



We reached  
**7.879m**  
 tonnes of production  
 in our first full year,  
 post-resumption



2021 was the first full year of our operational resumption. In 2021, we reentered the seaborne iron ore pellet market, maintaining Samarco's good position in terms of product quality and reliability. We sent out more than 70 shipments of pellets and fines and resumed serving customers in the steel industry, generating cash to maintain activities, the investments necessary to move forward with the gradual resumption, and to make good our commitments with remediation. In terms of production, we have reached the target for the period, with 7.879 million tons of iron ore pellets and fines up to December last year.

The period was rich in production and learning, with actions centered on

the guidelines of Samarco's Strategy Map, which ensured the fulfillment of objectives and the safety and integrity of people and assets. I also highlight the Company's commitment to environmental, social and governance (ESG) aspects, expressed in our Statement of Commitment to Sustainability - which, in dialogue with the United Nations Global Compact and 2030 Agenda, seeks to position us on the pillars of governance and organizational culture, social relations, environment and safety and innovation.

At the same time, we had to deal with scenarios that tested our ability to seek coherent solutions capable of responding to the needs of our audiences. Still facing the scenario of the Covid-19 pandemic, for example, we have maintained actions to protect the health and integrity of our employees and contractors and, at the same time, ensure the continuity of our mining and operational activities.

We have worked intensively with integral health during the pandemic, understanding that, in addition to physical integrity, it is necessary to contribute to people's emotional balance. We have strengthened our health and safety programs, in line with the moment of intense presence of workers in operational activities, projects and works related to the gradual resumption. We have consolidated actions in favor of human capital in the Samarco Culture Program – through which we have assessed, in the Climate Survey, 90.2% favorability among employees. As a result, we ranked 1<sup>st</sup> in the steel and mining sector and 22<sup>nd</sup> in the general ranking



Rodrigo Alvarenga  
 Vilela - CEO



of Amazing Places to Work in 2021, an initiative from UOL and *Fundação Instituto de Administração*.

We also started in April 2021, in partnership with Mais Diversidade, a process that culminated in the structuring of Samarco’s Diversity, Equity and Inclusion Program – an initiative that searches for an increasingly diverse, equitable and inclusive company – and also from the Diversity Committee, which prepared the governance and program indicators for 2021 and 2022.

These actions are decisive for our future: we understand that our teams, once engaged, healthy, aware of their contribution and duly recognized in their plurality are the ones that enable us to carry out each step of Samarco’s New Journey.

Another important challenge for 2021 was to increase the generation of tax revenue, maintaining employment and income and contributing to the development of the communities that host us, something that is part of our identity and our history. With the boost of the operational context, we have strengthened the social and institutional investment agenda, with environmental education programs, monitoring of indicators, socioeconomic diversification, and qualification of rural producers. Furthermore, with our business, we have generated BRL 1.1 billion in tax revenue for Minas Gerais and Espírito Santo, including tax revenue generated by suppliers in their purchases to meet the Company’s needs, and maintained a base of approximately 1,500 direct employees and 7,500 indirect employees.

In line with the governance established in the Transaction and Conduct Adjustment Term (TTAC) and Conduct Adjustment Term - Governance (TAC GOV), we remain absolutely focused on remediation and compensation actions related to the impacts of the Fundão dam collapse. Together with our shareholders, we have allocated BRL 8.1 billion to the 42 programs under the responsibility of the Renova Foundation, and we have also actively participated in the discussions led by the National Council of Justice regarding the renegotiation of actions within the scope of the TTAC. Another highlight is our project to de-characterize the Germano dam and pit, which made important advances during 2021 and received BRL 510.09 million in investments.

The economic-financial aspect was an important challenge for the year. Recognizing the difficult position of the Company in relation to debts

incurred before the Fundão dam collapse, we filed Samarco’s request for judicial reorganization in April 2021. This process was carefully and respectfully designed by us, in order to preserve the interests of all parties, offer the best possible payment terms after ratification for employees and suppliers, preserve our operations and renegotiate our debt with creditors.

Throughout the process, Samarco maintains transparency and continues to believe in a fair agreement, responsibly considering the limitations of our business plan and the Company’s obligations under the terms of the TTAC, in order to ensure economic and financial rebalancing and maintain our social function and the generation of employment, income and taxes.

We are a Company aware of its role and responsibility. We recognize that there are immense challenges linked to compensation and resettlement processes – and our involvement in renegotiation discussions is part of the efforts to make negotiations effective and speedy. We also know that the success of our Strategy Map depends on the treatment of all the Company’s risks and on a perspective that must remain focused on integrity, ethics, respect for human rights, and the safety of people, assets and structures.

In 2022, we expect to deal with a scenario of evolution of the discussions related to judicial reorganization, the renegotiation of the TTAC terms, and the enforcement

We hope to overcome the challenges of 2022 with resilience, including discussions on renegotiation, judicial reorganization and the evolution of the innovation agenda.

of the projects to de-characterize the Germano dam and pit, as well as the continuity of actions according to our medium- and long-term planning deadlines. At the same time, the innovation agenda will contribute to the gradual resumption of production capacity through less impactful solutions for the disposal of tailings and overburden. We will also have a positive period in terms of climate and culture, reflecting the investments made in the context of the resumption of engaging and mobilizing people regarding our purpose of carrying out mining differently, in a safer and more sustainable manner.

Through this report, we share a summary of indicators and projects that reflect what Samarco is and intends to be in its New Journey, aware of the need that transparency, today, is crucial for us to be a respected organization, authorized by society to operate. I am immensely grateful to everyone who collaborated in helping us get through this 2021 of challenges, and I hope you have a good read.

**Rodrigo Alvarenga Vilela**  
CEO



# 2021 in indicators



## ETHICS, GOVERNANCE AND TRANSPARENCY

100%  
of operations  
analyzed for risks related to corruption

100%  
of employees  
at all functional levels  
communicated and trained in anti-corruption

96%  
effectiveness  
in the critical  
controls  
of the Compliance Program



## TAILINGS

disposal management  
and mitigation of impacts  
caused by the collapse of  
the Fundão dam

BRL 20.7 billion  
in contribution from shareholders  
by December 2021, where

- BRL 14.5 billion in the Renova Foundation
- BRL 6.2 billion in Samarco by December 2021

BRL 4.4 billion  
in Samarco funds allocated  
directly to the Renova  
Foundation

TTAC remediation  
programs and actions:

BRL 8.1 billion  
in transfers to Renova, with

- BRL 3.7 billion in amounts directly contributed by Samarco
- BRL 4.3 billion contributed by shareholders

+ BRL 109 million  
directly disbursed by Samarco  
for enforcement in TTAC  
programs



## MANAGEMENT AND MITIGATION OF IMPACTS ON BIODIVERSITY

5  
fauna knowledge management,  
stewardship and monitoring  
programs

10  
programs  
aimed at environmental  
education, area rehabilitation,  
air quality, noise control,  
vibration and forest fires and  
flora management

BRL510.09  
million  
in expenses incurred  
to de-characterize  
the Germano Dam and Pit





COMMUNITY  
ENGAGEMENT  
AND  
PARTICIPATION

BRL 7.1  
million  
invested voluntarily,  
via institutional  
and social investments

BRL 18.3  
million  
in environmental  
investments



FINANCIAL  
SUSTAINABILITY

BRL 9,028.3  
million  
in gross revenue in the year

BRL 610  
million  
in investments

BRL-10,046.1  
million  
in income for the year (loss)

Filing of our **request for Judicial Reorganization** (in April/2021), in order to rebalance the Company's economic-financial situation



SAFE, SUSTAINABLE  
AND RESPONSIBLE  
PRODUCTION

0.29  
was the specific lost-time accident  
rate (LTA)

1.18  
was our total recorded accident rate  
(LTA + non-LTA)

698.15  
was our intensity of GHG emissions  
(tons of emissions/workers) GRI 305-4

85.4%  
was our consolidated percentage of  
water reuse in operations



HUMAN AND  
ORGANIZATIONAL  
DEVELOPMENT

97  
admissions of new employees, where  
52%  
of the local community

Structuring the **Diversity, Equity and Inclusion Program and the Diversity Committee**

100%  
of the team evaluated  
for its performance

31.06  
was the average hours  
of employee training

# About Samarco

GRI 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7

We are Samarco Mineração S.A., a privately held Brazilian company, controlled in equal parts by BHP Billiton Brasil and Vale S.A., with more than four decades of history and operations focused on the extraction and processing of iron ore and the production of pellets for the global steel industry.

We were founded in the 1970s with the implementation of an innovative design, aimed at converting low grade iron ore into high quality products applicable to the manufacture of various structures, technologies and utilities.

We were also distinguished from the beginning by the application of our own and integrated operational structure between our Germano operations, in the cities of Mariana and Ouro Preto (MG), where we extract and process the ore; and Ubu (Anchieta - ES), where we maintain industrial (pelletizing) and port activities. Connecting the two industrial units, we have three 400-kilometer pipelines each, through which the ore slurry is transported. In the gradual resumption, with 26% of production capacity, we resumed operations with a concentrator, an ore pipeline, and a pelletizing plant.

Our structure also includes the administrative headquarters in Belo Horizonte (MG); our commercial offices in Brazil, the Netherlands and Hong Kong; and participation in energy generation projects - Muniz Freire Small Hydroelectric Power Plant (ES) and the Guilman-Amorim plant consortium, in Antonio Dias and Nova Era (MG).

We are 1,487 employees driven by the purpose of carrying out mining differently. Based on the lessons learned after the collapse of the Fundão dam in 2015, which marked our history and impacted the foundations of the mineral sector, we developed a deep review of mission, vision, values, culture, processes and strategies, guided by pillars of governance and organizational culture, social relations,

environment and safety and innovation – expressed in our Statement of Commitment to Sustainability (see page 32).


We remain dedicated to the financing of all socio-environmental and socioeconomic programs carried out in the areas impacted by the Renova Foundation: by December 2021, BRL 20.7 billion were allocated to the entity, which indemnified more than 363,500 people. We act in line with the guidelines of the Transaction and Conduct Adjustment Term (TTAC) and, later, of the Conduct Adjustment Term - Governance (TAC Governança), entered into in 2016 and 2018, and in 2021 we started the renegotiation discussions led by the Observatory of the National Council of Justice (CNJ). This process will continue in 2022.

From a business point of view, we are experiencing a 2021 marked by challenges – such as coping with the Covid-19 pandemic and the Company’s request for judicial reorganization – and also by achievements, such as the successful return to the transoceanic iron ore pellet market and stability of our operations.

In line with the business plan, we produced almost 7.9 million tons of products and carried out more than 70 shipments from the port of Ubu, serving the markets of the Americas, Europe, the Middle East, North Africa and Asia. In 2021, our gross revenue reached BRL 9.028 billion and our investments totaled BRL 234 million.

At the same time, we continue to study innovative alternatives to accelerate the resumption of our original production capacity in models that minimize the generation of tailings and seek alternatives for the economic exploitation of by-products.

## Our identity




### Purpose

To carry out a different and sustainable mining, capable of generating results and building value for society.



### Mission

To optimize the transformation of mineral resources into value for society in a safe, efficient and innovative manner, today and in the future.



### Vision

To be recognized for overcoming obstacles and rebuilding social, environmental and economic relationships.



### Values

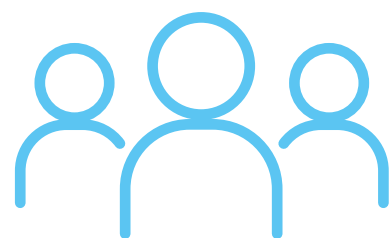
- Respect for People
- Integrity
- Mobilization for results
- Safety







## Operation in numbers



1,504  
suppliers  
with active contracts

1,487  
employees

- 863 in Germano
- 489 in Ubu
- 35 in BH and offices abroad

7,550  
contractors  
(includes employees from ES and MG in Fixed, Project and Occasional categories)

8 million  
is our current  
production capacity  
(26% of the total)  
• 7.879 million was  
our production  
throughout 2021

Concentrator  
3 - Germano,  
Mariana and  
Ouro Preto  
Complex (MG)

## Our structure

2 mines Alegria  
and Germano

>> Where: Mariana and  
Ouro Preto (MG)

Iron ore extraction

3 ore  
concentrators

>> Where: Mariana and  
Ouro Preto (MG)

Beneficiation of mined ore.  
1 active concentrator in 2021

Alegria Sul Pit

>> Where: Mariana and  
Ouro Preto (MG)

Capacity of 10.4 million m3 for  
disposal of the tailings slimes  
portion

Overburden  
piles and dams

>> Where: Mariana and  
Ouro Preto (MG) and  
Anchieta (ES)

Water, tailings and overburden  
storage  
In MG: Germano and Matipó  
(tailings) and Nova Santarém  
(water) dams  
In ES: North dam (water)

3 pipelines

>> Where: 25 municipalities in  
Minas Gerais and Espírito Santo

Transport of iron ore slurry. 1 active ore  
pipeline in 2021

4 pelletizing plants

>> Where: Anchieta (ES)

Transformation of iron ore slurry into  
pellets. 1 active plant in 2021

Maritime terminal

>> Where: Anchieta (ES)

Flow and shipment of production to  
serve customers in the global market

Hydroelectric power  
plants

>>Where: SHP Muniz Freire (MG)  
and Antônio Dias and Nova Era  
(MG)

Production of energy

Offices

>> Where: Administrative  
headquarters in Belo Horizonte  
(MG) and offices abroad in Hong  
Kong and the Netherlands

>>> [Understand all the details  
of our operating model](#)



# Business context



Ponta Ubu  
Maritime Terminal,  
Anchieta (ES)



# Our strategy map

Over the past six years, we have been experiencing a process of deep reflection about our reason for being, our way of operating, and the vision of Samarco’s future. As a company that stands out in Brazilian mining, marked by a strong reputation built since the 1970s, in the regions where it operates and also with customers, we humbly face, with realism and a sense of urgency, the challenges generated on November 5, 2015, with the collapse of the Fundão tailings dam, in Mariana, Minas Gerais.

Guided by investments in safety and innovation and a new look at mining, Samarco currently operates in a different way, with 26% of its capacity, in line with the plan established in the processes of licensing and dialogue with authorities. Our position statement launched on the occasion of our operational resumption is that of “Learning to Evolve and Transform”, through incremental, structuring and development programs, which allowed us to return to activities and plan our growth in an integrated way with the sustainability of the business and our value chain.

Through lessons learned, we remain firm in our commitment to remediation and compensation of the impacts caused by the Fundão dam collapse, and work to operate at full capacity by 2029. The maturing of systems and processes, the obtaining of licenses and authorizations, the restoration of trust in the relationships, and socio-environmental responsibility are central components of the Company’s long-term planning.

Our long-term planning is the result of reflections involving the Executive Board, the Board of Directors, and guidelines from the shareholders BHP Billiton Brasil and Vale S.A., in view of diagnosis and surveys with the communities. We have defined a new journey with the support of a multidisciplinary executive committee that worked on defining the strategic guidelines, detailing the pre-resumption management model, and our performance in the post-resumption context.

Starting in 2018, we carried out a review of our organizational identity, defined requirements and business drivers and built the Strategy Map, a document that outlines pillars of the management model, defines priorities and assigns projects and key performance indicators to the different areas of the Company.

Between 2021 and 2022, we carried out a review of the Strategy Map in light of the resumption scenario and the current environment of the mineral sector and the iron ore pellet market, considering lessons learned and perspectives for the business.

Samarco’s strategy map defines objectives in terms of value generation, stakeholders, internal processes, people and knowledge management. Based on it, we define the management model to unfold and monitor the enforcement of the strategy at the tactical and operational levels, through the administration of operations and routines and structuring and incremental programs, in addition to research and studies focused on innovation and new businesses.

## NEW SAMARCO JOURNEY



ORGANIZATIONAL IDENTITY REVIEW



DEFINITION OF REQUIREMENTS AND BUSINESS DRIVERS



CONSTRUCTION OF THE STRATEGY MAP

## CREATION OF BASES FOR



DEFINITION OF THE MANAGEMENT MODEL



BUSINESS PLAN RECONSTRUCTION



REVIEW OF ORGANIZATIONAL STRUCTURE

## OUR JOURNEY SO FAR

The last few years have been dedicated to the enforcement of investments and structuring projects, to ensure the stability of geotechnical structures, prepare the Company for its new operating model, and make good commitments related to the remediation and adaptation to new regulations in the sector.

Guided by the Strategy Map, we have strengthened the dialogue with environmental organizations and authorities to regain the corrective operating license (LOC), in a process directly monitored by the top leadership and the communities that receive us.

At the same time, we reviewed the structures of our operating model, targeting a business that is less and less dependent on dams. Between 2018 and 2020, we carried out the works on the Alegria Sul Pit Tailings Disposal System and the Sandy Tailings Filtration System – two structures that allowed the Company to return to filtering 80% of the sandy tailings for dry stacking, with the remaining 20% disposed of in pit, and reuse about 90% of the water extracted with filtration. In all, BRL 570 million were allocated to both projects, essential in the context of the resumption.

Another project was the Operational Readiness project, aimed at the

We transferred BRL 20.7 billion (by December 2021) in our own funds or via shareholders to the actions of Renova Foundation

resumption of productive assets and all the areas involved, mobilizing remediation works, interventions in plants, training of personnel, procurement of services, and safety and integrity programs.

We have also invested BRL 510.09 million (by Dec 2021) in the process of de-characterization of the Germano pit and dam, in compliance with the new sector regulation on the use of these structures (read more in Safety and Innovation).

In the area of remediation, we have transferred BRL 20.7 billion (by Dec 2021) from our own funds or via shareholders for Renova Foundation's actions. Since 2020, we have taken over the process of recovery of the Risoleta Neves Hydroelectric Power Plant (Candonga), which was impacted by the Fundão collapse, and started discussions to renegotiate the agreement related to the Fundão dam collapse (read more in Commitment to Remediation).



## PRESENT AND FUTURE

Ensuring a stable, efficient and secure return from operations was our main strategy execution challenge during 2021. The volume of employees and contractors in the field, whether in routine operations or in the Company's capital projects, required our teams to pay extra attention to issues such as the balance of productivity, stability of our operations, and health and safety in the performance of the functions.

The scenario of a return to the global steel market mobilized efforts by the Company's commercial areas to ensure the adequate marketing of products. At the end of the period, there were more than 70 shipments for the domestic and foreign markets, as a result of the reconstruction of contracts and relationships with new or served customers in Samarco's history.

From an economic-financial point of view, in April 2021, we filed a request for judicial reorganization with the Justice of Minas Gerais to protect our operations, maintain our social function and the generation of jobs,

income and taxes, and renegotiate our debt - for the most part financial and held by foreign bondholders. This measure, which does not impact the Company's operations, meets the need to rebalance Samarco's capital stock so that it can honor its debts with investment funds and its shareholders – who provided funds for the Company's resumption and for compensation and remediation actions performed by Renova Foundation since 2016.

Also in 2021, we started, together with the various stakeholders, the process of discussing the renegotiation of the remediation actions carried out by the Renova Foundation, under the leadership of the Observatory of the National Council of Justice (CNJ) (read more in Commitment to Remediation), an action that seeks to speed up and efficiently allocate funds, and perform projects and programs.

Another important move in the context of the resumption was the announcement, in February 2022, of an agreement with Vale to optimize our production activities through a series of contracts between the company and Samarco, involving sharing of structures and agreements for the purchase and sale of ores. The effectiveness of these agreements is subject to the fulfillment of certain conditions, including, when applicable, the approval of the judicial reorganization court.

All these actions materialize the priorities of our strategy and emphasize our commitment to a Company in tune with the social demands and transformations of the sector, while enabling the business to reap results capable of guaranteeing its perpetuity and the fulfillment of all agreements and commitments assumed.



# Commitment to remediation

The collapse of the Fundão dam is an event that will be forever marked in our history. And we reaffirm our commitment to full remediation of damages.

Since November 2015, we have worked directly to ensure the financing of this process, and today we are part of a governance system aimed at ensuring its compliance, under the supervision and monitoring of authorities and civil society.

Immediately after the collapse, we acted in the immediate and emergency intervention on the impacts generated in the communities of Minas Gerais and Espírito Santo, and in approximately 680 km of water bodies of the Doce river watershed.

At the same time, we began discussions aimed at negotiating agreements and, during 2016, we entered into the Transaction and Conduct Adjustment Term (TTAC) with the federal and state governments of Minas Gerais and Espírito Santo, totaling 12 government representatives. Based on the TTAC, we closed the structuring of the agenda related to management of the impacts of the collapse.

Two years later, we also signed the Conduct Adjustment Term - Governance (TAC Gov), ratified on August 8, 2018, which improved the participation of the affected people in the remediation decision-making processes.

Within the scope of the TTAC, Samarco is the main sponsor, responsible for financing the Renova Foundation - in case of inability to do so, the allocation of funds is made by the shareholders Vale and BHP.

By December 2021, more than 363,500 people had been compensated in the programs conducted by Renova. We have allocated BRL 20.7 billion, from our own funds or those of shareholders, to the actions carried out by the Foundation. The remediation process carried out by the Renova Foundation relies on broad governance, with the involvement of public authorities and various actors in society.

Samarco, together with its shareholders, has always been and remains committed to the discussions about the renegotiation in the context of the Transaction and Conduct Adjustment Term (TTAC), led by the National Council of Justice (CNJ), and the actions of remediation and compensation for damages carried out by the Renova Foundation. The company believes that it is possible, in a consensual way, to reach an agreement based on a careful evaluation of each of the 42 programs that make up the TTAC.

The Company reaffirms its commitment to communities and to the Joint Letter of Principles, presented in June 2021. The first meeting of the group led by the CNJ occurred in April 2021.

>>> Find up-to-date data on the 42 socio-environmental and socioeconomic programs carried out by the Renova Foundation [here](#).

## RESETTLEMENTS

GRI MM9

One of the issues related to remediation is the resettlement of directly affected communities, which is under the management of Renova Foundation. While the new communities are not ready in Bento Rodrigues, Paracatu de Baixo and Gesteira, the families are in rented housing, paid for via Renova, and have psychosocial, educational and medical care.

In Mariana (MG), the works of Bento Rodrigues and Paracatu de Baixo are advancing, with the construction of houses and the completion of infrastructure in the new districts. The projects had the active participation of future residents and are similar to the construction of real cities.

The resettlement of Bento Rodrigues at this time is the construction of residences: Forty-seven (47) are completed and seventy-three (73) are under construction. Infrastructure works and public sanitation, health and education equipment have already been completed.

In Paracatu de Baixo, 16 houses started the civil construction stage. The infrastructure is at an advanced stage, 93% complete, with earthworks being carried out on access roads and in the areas of the lots, containments, works on the rainwater drainage network, treated water pipeline, and sewage network. The paving of the main access has been completed. School works are in progress.

In Gesteira, district of Barra Longa (MG), since November 2019, collective resettlement is being addressed in the Public Civil Action (ACP) pending before the 12th Federal Civil/Agrarian Court of Minas Gerais. The conceptual design was completed in 2020. The projection is that nine families will be assisted in the collective resettlement of Gesteira.

In addition, the Renova Foundation presented a proposal and closed an agreement with 28 families for the acquisition of property through the model of remediation of the right to housing, known as family resettlement.

For more information, see the activity reports on the socio-environmental and socioeconomic programs carried out by Renova Foundation.



Bento Rodrigues Settlement, Mariana (MG)

# Vision of sustainability

GRI 102-20, 102-29



The purpose of carrying out mining differently, with a vision of shared value, is at the heart of Samarco's business model and guides us to act, in the present, with an attentive eye to the future - attentive to opportunities, trends and investments in the environmental, social and governance (ESG) spheres that are connected to our challenges and industry.

Governance on the subject at the Company is extensive and is linked to a General Sustainability Management, with developments in topics such as health and safety, innovation, environment, social and institutional development, and institutional relations. We understand that the ESG agenda is a foundation for the future of the mining sector and encourages us to seek alternatives with less impact on production - something already present in our business plan, as a condition and enabler for the Company's going concern.

In 2021, we created our Sustainability Committee, a decision-making and advisory body, the function of which is to provide the Board of Directors with ESG information pertaining to the formulation of strategies and guidelines for the business. It is also incumbent upon the body - consisting of four members - to monitor business risks and analyze the Life of Mine (LOM - productive life of the mine), a key indicator for long-term planning.

Our committee acted continuously in its first year, with monthly meetings. The four members are appointed by our shareholders and, during the year, they discussed the Company's Transformation Plan, which will be broken down into clear socio-environmental commitments, shared with our stakeholders and society.

The year was also decisive as we expanded internal and external knowledge about the Statement of Commitment to Sustainability - a document created since 2020, which details the process of materializing Samarco's purpose based on actions focused on environmental responsibility, ethics, integrity, social relations, safety and innovation.

The Statement is integrated into our Strategy Map and is considered by our Executive Board and the Board of Directors in decision-making processes. It is structured into four pillars, which we also detail in the form of chapters in this report.

We also integrated the document's assumptions into our management of material sustainability issues (learn about them on page 10), identified after extensive inquiry with our stakeholders.

See the statement below:

## The statement

*For us at Samarco, sustainability is an opportunity to put into practice our purpose of carrying out mining differently, capable of generating results and building value for society, respecting the lives of all beings and the Environment.*

*Through our vision, strategy and actions for sustainability, we believe that it is possible to turn mineral resources into value in a responsible and ethical manner,*

*aiming at harmonious coexistence with the host communities and other audiences with whom we interact in the territories.*

*Our desire to contribute to sustainable development is based on the conscious and planned use of environmental goods and services, mindful of the limits and regeneration capacity of nature. We intend to always evolve, learning from the challenges and joining efforts in the search for a balance between the interests of the business and the current needs of society and future generations.*

*In this regard, we are engaged in mitigating and compensating for negative impacts, promoting the benefits of our activities and caring for human relations through continuous dialogue with the players of our value chain.*

**Organizational culture and governance**  
*Our aim is to evolve towards a different mining, in partnership with our employees and our various stakeholders. In addition to our values and cultural traits, our commitment to sustainability continues to be guided by the pillars Social Relations, Environment, Safety and Innovation.*

**Social relations**  
*Assure and disseminate human rights, creating equal opportunities, incorporating inclusive approaches aiming at diversity and inclusion in the life cycle of our projects, both inside and outside Samarco.*

*Invest in professional qualification as a basis for human and community development, fostering decent and honest work.*

*To be permanently open to active dialogue, seeking synergy between local interests, collective demands, and the vision of the competent institutions and authorities, agreeing on a common agenda that considers Samarco's responsibilities, limitations and*

*potential to contribute to sustainable transformations in the territories.*

*To perform an increasingly ethical mining, with clear action goals, accessible channels of continuous communication, and transparency in disclosing our performance and challenges.*

**Environment**  
*Act vigorously in the reconstruction of social and environmental relationships, reduce the generation of pollution and waste, improve water and energy efficiency, and build resilience with regard to climate change.*  
*Preserve and protect biodiversity, constantly monitoring the fauna and flora of our area of influence and contributing to the permanent preservation of green areas for current and future generations.*

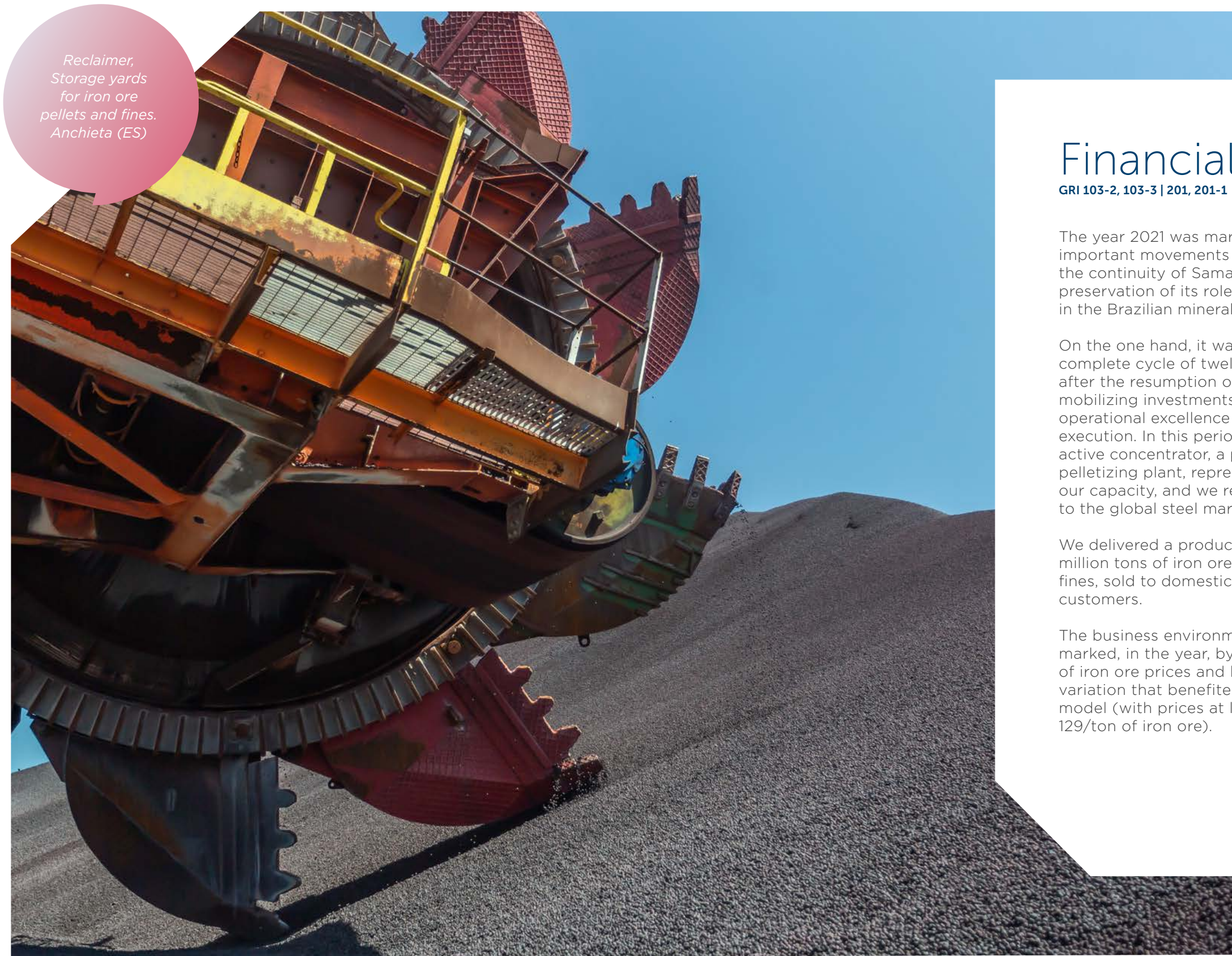
*To operate responsibly in the use of natural resources, paying attention to the limits and capacity of regeneration of nature, ecosystem services, and the quality of life of those who benefit from them.*

**Safety and innovation**  
*Value life by identifying, preventing and monitoring hazards and risks related to the health and safety of all living beings.*

*Pursue excellence in the use of enabling technologies, that enhance the ability to transform and innovate, aiming at ensuring the continuity of the business and the sharing of value and knowledge with our stakeholders.*

*Joining forces with mining companies and other players connected to innovation and entrepreneurship, to seek joint solutions that contribute to the evolution of our activity and construction of a prosperous legacy for society.*





Reclaimer,  
Storage yards  
for iron ore  
pellets and fines.  
Anchieta (ES)

## Financial result

GRI 103-2, 103-3 | 201, 201-1

The year 2021 was marked by two important movements aimed at the continuity of Samarco and the preservation of its role in society and in the Brazilian mineral industry.

On the one hand, it was the first complete cycle of twelve months after the resumption of operations, mobilizing investments in productivity, operational excellence and commercial execution. In this period, we had an active concentrator, a pipeline and a pelletizing plant, representing 26% of our capacity, and we regained access to the global steel market.

We delivered a production of 7.879 million tons of iron ore pellets and fines, sold to domestic and foreign customers.

The business environment was marked, in the year, by the recovery of iron ore prices and by an exchange variation that benefited our export model (with prices at levels of USD 129/ton of iron ore).

The operational performance within the plans for the resumption and the focus on long-term commercial relationships were responsible for a significant jump in our gross revenue, which reached BRL 9,028.3 million, more than 7,286% higher than in 2020 (when we had only BRL 123,916 million in revenue, as the resumption only took place in December and did not significantly benefit the consolidated performance).

In the second movement, we continued to be affected by an extremely difficult scenario for the Company's capital structure. The accumulation of debts, many of them prior to the Fundão dam collapse, challenges us in the process of meeting commitments with financial creditors.

We started our judicial reorganization proceeding in April 2021 in order to protect the Company, our assets and our social function, while we seek, with transparency and in an adequate legal environment, to renegotiate our debt, which is, for the most part, financial and held by foreign funds specializing in the purchase of debt securities.



## KEY INDICATORS: PRODUCTION AND SALES



7.879  
million  
of tons produced

7.06  
million  
tons - sales abroad  
(pellets + fines)

0.379  
million  
of tons - sold in the  
country (pellets)

+ than 70  
shipments  
carried out from the Ubu  
maritime terminal

## 2021 RESULTS

BRL 9,028.3  
million  
in gross sales in 2021

BRL 2,560  
million  
in cost of product sold w/ idle  
capacity

BRL -10,046.1  
million  
as profit/loss of the year (loss)

BRL 598.09  
million  
It was the approximate value of  
investments during 2021, comprising  
8 programs and 38 projects

85%  
of the amount is linked to the  
program to de-characterize the dam  
and the Germano pit

## Direct economic value generated (BRL)

	2019	2020	2021
Revenue (R\$)	1,121,320.11	265,623.35	1,382,324.33

## Economic value distributed (BRL)

Distributed	2019	2020	2021
Operating costs*	806,715.00	1,197,252.00	2,396,892.88
Employee salaries and benefits	202,127.00	227,918.00	259,704.00
Payments to capital providers	1,581.00	1,198.00	9,526.00
Payments to the government	349,195.82	297,139.76	452,225.22
Community investments	13,602.55	18,239.98	2,721.69
<b>Total</b>	<b>1,373,221.37</b>	<b>1,741,747.73</b>	<b>3,121,069.78</b>

## Retained economic value (BRL)

Retained	2019	2020	2021
“Direct economic value generated” minus “Economic value distributed”	251,901.26	1,476,124.38	1,738,745.46

\* The increase in costs in 2021 was linked to activities related to the operational resumption.



THE REORGANIZATION IN DETAIL

The judicial reorganization process meets the need to rebalance Samarco's capital stock so that it can make good its debts with investment funds and its shareholders Vale and BHP Billiton Brasil - which provided funds for the Company's resumption and for the compensation and remediation actions conducted by the Renova Foundation since 2016.

Samarco has approximately BRL 51 billion of debts that are subject to Judicial Reorganization. Moreover, the Company is responsible for remediation and compensation measures for socioeconomic and socio-environmental damage resulting from the collapse of the Fundão dam, obligation that is paid through contributions to Renova Foundation. The amount may change due to updates, settlement of claims resulting from legal discussions, judgment of challenges, variation in the dollar exchange rate, among others.

Much of the financial debt was incurred before the Fundão dam collapse, in large-scale projects to expand our production capacity. After November 2015, there was a strong sales movement of debt securities (bonds) and Export Prepayment Contracts (EPP's) by the original creditors; most of the value was concentrated in foreign funds specialized in acquiring debt from companies in crisis.

Samarco's operational limitations and commitments to fulfill its obligations

MINE PLANNING GRI MM10

We prepare and periodically review conceptual closure plans for all our operating units – Germano, Ubu and Pipelines. This plan is a management tool to map actions and measure the costs of the mining operation closing process, with reviews every five years or in case of changes in the Company's economic use plan.

In turn, the provision for costs is reviewed and performed annually, with the application of updated inflation rates, following the Asset Retirement Obligation (ARO) methodology, with disclosure in the accounting reports in compliance with international accounting standards, such as the International Accounting Standard (IAS) 37.

With the support of external consultants, our management reviewed the conceptual plan for the closure of the Germano and Ubu complexes, as well as the three pipelines, in March 2020. As of December 31, 2021, the amount provisioned for costs necessary for closure totaled BRL 1,171,837,668.52. The port of Ubu, the Barro Branco high voltage transmission line, SHP Muniz Freire and HPP Guilman-Amorim are not part of the operation closure plan, as they are activities with concessions or that may remain operational after the closure of Company activities.

We are currently working on updating the closure plan, with completion expected in November 2022.

RJ IN NUMBERS

BRL 51 billion

In claims restructured in the reorganization:

OUR CURRENT FINANCIAL POSITION

BRL 9,677.3 million

in debt with shareholders (loans and financing)

BRL 2,917.8 million

in debt to shareholders (dividends and mining rights)

BRL 14,456.6 million

in debt with shareholders (Renova Foundation contributions)

BRL 1.5 million

in debt to shareholders (others)

BRL 27,703.2 million

in debt to third parties



# Governance and culture

Employees who work in the Germano, Mariana and Ouro Preto Complex (MG)





# Governance model

GRI 102-18, 102-19, 102-20, 102-28

We believe that adherence to benchmark market practices in corporate governance is a requirement for rebuilding the relationship between Samarco and Brazilian society.

We base our decision-making and strategic actions on the principles of transparency, corporate responsibility, equity and accountability, as defined by the Brazilian Institute of Corporate Governance (IBGC). Based on our journey and shareholder and industry best practices, our leadership is committed to formulating business plans that combine responsible growth with safety, efficient use of resources, respect for life and value creation to finance the remediation, having leadership as a guide to our purpose.

Our governance system is based on five components: our shareholders BHP and Vale S.A., the Board of Directors; the Executive Board; the external independent audit; and Board advisory committees. Its performance is in line with the Shareholders' Agreement, the Code of Conduct and the Articles of Incorporation, in addition to other corporate policies and guidelines.

During the year, we had as achievements the creation of the Sustainability Committee and the Diversity Committee, which help to connect the Company to the challenges of its segment and to key themes of the contemporary ESG agenda.

## Board of Directors

GRI 102-22, 102-23, 102-24

The highest governance body aims at promoting connection among our shareholders, the business, and our vision of the future. It acts as guardian and leader in the development of strategic guidelines and the business plan, in addition to evaluating risks and opportunities and considering significant changes to the Company, in accordance with the terms of the Articles of Incorporation. Our directors do not hold executive positions and are made up of four effective members and four alternates, appointed in equal parts by the shareholders.

**8 members**  
 Monthly meetings  
 Three-year terms of office, subject to re-election

BHP Billiton Brasil Ltda.  
 Effective members: 2 members  
 Suplentes: 2 members

Vale S.A.  
 Effective members: 2 members  
 Suplentes: 2 members

## Executive Board

Our executive board is responsible for the day-to-day management of the business and for complying with the Company's Strategy Map, working in the definition of investments and projects and ensuring proper enforcement thereof. In recent years, we have reorganized the structure of positions to reflect the Company's current situation, with emphasis on the Restructuring Board – a position linked to the judicial reorganization process and economic-financial rebalancing of the business.

**6 members**  
 Weekly meetings  
 Three-year terms of office, subject to re-election

Rodrigo Alvarenga Vilela  
 CEO

Luiz Fabiano Silveira Saragiotto  
 Chief Restructuring Officer

Najla Ribeiro Nazar Lamounier  
 Chief Legal, Risk and Compliance Officer

Reuber Luiz Neves Koury  
 Project and Sustainability Officer

Sérgio Gonçalves Mileipe  
 Chief Operating and Planning Officer

Gustavo de Abreu e Souza Selayzim  
 Chief Financial, Information Technology and Procurement Officer

## Advisory committees

We had seven committees and two subcommittees active during 2021, as compared to 10 in 2020. The focus of these bodies is to promote technical discussions on specific topics related to the present and future of the business, supporting the Board of Directors with guidelines and recommendations.

The committees are not responsible for the management of the Company, do not have a decision-making nature and are intended to facilitate the efficient and effective performance of the Board of Directors.

- Sustainability Committee**  
 8 members; 12 meetings
- » **Subcommittee on Stakeholder Communication and Monitoring**  
 8 members; 14 meetings
- Risk Management, Audit and Compliance Committee**  
 16 members; 16 meetings
- Geotechnical Committee**  
 9 members; 15 meetings
- Finance Committee**  
 9 members; 17 meetings
- » **Tax Subcommittee**  
 10 members; 34 meetings
- Legal Committee**  
 8 members; 66 meetings
- Technical and Operations Committee**  
 12 members; 16 meetings
- People Committee**  
 3 members; 8 meetings

# Ethics and compliance

GRI 102-16, 102-17, 102-25, 102-26, 103-2, 103-3 | 205, 103-2, 103-3 | 206, 103-2, 103-3 | 207, 103-2, 103-3 | 412, 103-2, 103-3 | 415, 103-2, 103-3 | 419, 205-1, 205-2, 205-3

Samarco’s commitment to ethics and integrity is in our values, our history and our way of being, operating and doing business. All those acting on behalf of the Company must act in line with our policies and national and international legislation, focusing on topics such as human rights, fighting corruption and fraud, fair competition and legal and tax compliance.

The Compliance area is the main guardian of the matter and has advanced in recent years towards shared and transversal management on the subject - in which the areas increasingly monitor and report risks and opportunities related to the subject. Samarco works with a governance system that includes compliance committees, the Conduct Committee, and the Risk, Audit and Compliance Committee, thus connecting with senior leadership on relevant matters.

Samarco’s strategic focuses on the compliance front are to ensure integrity in the relationships among our employees, partners and stakeholders, including public officials, authorities, host communities, etc. On our radar we have, for instance, the control of risks of fraud, corruption, bribery, antitrust, money laundering, conflicts of interest, and non-compliance in human rights. Another relevant topic is conflict of interest, which we manage with specific assessments and in relation to which we require a self-statement from employees.

Regarding commercial and competition practices, we maintain a specific Antitrust Policy, with rules to prevent the occurrence of anticompetitive practices. The policy is reviewed every two years and approved by the Board of Directors, in addition to being included in the annual training calendar for Samarco representatives and shareholders that make up our governance system.

The Compliance program includes prevention, detection and response measures in cases of non-compliance. The program includes training, communication, third-party due diligence, conflict of interest management, relationship with public agents, registration and control of gifts, presents and hospitality, analyses of donations and sponsorships, and execution of agreements with public bodies, in addition to the entire management of the ombudsman channel and the conduct and compliance committee. In the process of providing information to the Board of Directors, the independence of function and processes is assured.

We work to sensitize employees and leaders on the subject and strengthen preventive and corrective approaches to the subject; review and monitor the effectiveness and application of our management policies, and respond with speed and balance to eventual cases of non-compliance, based on structured policies, channels and investigation processes.

Our Code of Conduct is available to employees and business partners and undergoes periodic updates, in

addition to being included in training, integration and recycling programs.

In addition to it, we have a series of policies applied to the most sensitive and relevant processes, areas or topics in the Company’s context. Namely:

- Policy for the Prevention of Corruption and Fraud – in line with the Brazilian Anti-Corruption Law, the Foreign Corrupt Practices Act (FCPA), and the United Kingdom Bribery Act (UKBA);
- Policy for offering and receiving gifts, presents and hospitality;
- Antitrust Policy;
- Corporate Manual on Approval Authority Schedules;
- Institutional and Social Investment Policy;
- Travel and Corporate Card Policy;
- Consequence Management Policy; and
- Corporate Risk Policy and Manual.

During 2021, we received an external shareholder audit, in which a full analysis of Samarco’s Compliance Program and its actions in the anti-corruption pillar was carried out. As a result, we identified opportunities to improve controls and implemented them throughout the year.

The context of the resumption of operations, the maintenance of the home office regime for some areas, the fight against the pandemic, and the judicial reorganization were some of the most relevant factors for compliance management in the period.

As expected, we reviewed the Code of Conduct and other compliance policies in a collaborative process, with suggestions sent by employees. In

addition to the code, the policies for combating corruption and fraud and for offering and receiving gifts were revisited, as well as the Institutional and Social Investment Policy, considering the sustainability strategy and its fundamental commitments. We have enriched the topics on diversity and inclusion, human rights, risk management and controls and sustainability in the Code of Conduct.

At the end of the cycle, we were able to carry out analyses of 100% of our operations regarding risks related to corruption, considering our Germano and Ubu complexes. This process is based on half-yearly assessments, in addition to being connected to Samarco’s annual risk mapping seminars (read more in Safety and Innovation).

We also carried out ongoing monitoring assessments of sensitive disbursements, including assessment of non-competitive contracting processes, assessment with Business Partners and law firms characterized as substitutes, expenditures with corporate cards, employee travel, government spending and acquisition of land and easements, in addition to socio-institutional investments.

We had no record of public lawsuits related to corruption filed against the Company, nor of lawsuits on the subject involving employees and their relationship with Samarco.

We analyze 100% of our operations for corruption risks; we had no occurrences in 2021



Capacity Building

We continued to offer online and interactive compliance training, focusing on the Code of Conduct and other compliance policies, through the Samarco Saber platform. We also held a contest to raise awareness of the concept of integrity, awarding the best sentence in an online event held by the Executive Board with all employees, and we published a series of internal communications on topics, such as employee interaction with public agents and respect for people/fight against prejudice and discrimination, among other actions.

At the end of the year, we reached the level of 100% of employees at all functional levels informed and trained on anti-corruption procedures and policies. Considering the pandemic scenario, in 2021, there was no training on the Code of Conduct and Compliance Policies for business partners, such as suppliers and employees of contractors.

We have reached 96% of our effectiveness goal in critical controls related to the Compliance Program. Our goal for 2022 is to advance in policies with the creation of the Supplier Code of Conduct.

PILLARS OF THE COMPLIANCE PROGRAM



Prevention

- Code of conduct;
- Compliance policies;
- Communication and training;
- Fraud, corruption and antitrust risk management;
- Due diligence of suppliers and partners;
- Management of business partners.



Detection

- Whistleblowing Channel – Ombudsman;
- Records: meeting with public authorities, promotional gifts, presents, hospitality, bond statement, and conflict of interest;
- Noncompliance report;
- Continuous monitoring of sensitive disbursements.



Response

- Action plan management;
- Consequence management;
- Miscellaneous reports.

COMMUNICATION, ANALYSIS AND INVESTIGATIONO

GRI 102-33, 102-34

All potential cases of non-compliance can be reported by employees, communities, suppliers and other audiences through the Ombudsman – a channel that welcomes demonstrations and inserts them into a flow of analysis dedicated to ensuring a fair and balanced investigation, protecting the identity of the whistleblower (with the possibility of anonymity), and preserving the Company, its values and its culture. The channel can be accessed by phone 0800 377 8002, through a toll-free call, 24 hours, 7 days a week, through the channel’s website, by the Ombudsman email, or in person with the compliance team.

The Ombudsman’s Office registered 321 reports during 2021, slightly below the 386 received during 2020 – this reduction can be explained by Samarco’s maturing in the management of the Covid-19 pandemic in the operation, a highly representative topic

in the total number of records made in the first year of the health crisis. Of the 321 reports received, 37 were being investigated on 12/31/2021. Most (54%) of the records address matters related to suppliers and employees of Samarco’s suppliers.

Once registered, cases are considered according to the Conduct Committee’s protocols and guidelines, and sensitive cases are directly reported to senior management - which is also represented on the committee by the CEO, the Legal, Risks and Compliance Board, by the General Organizational Human Development Management, and the Ombudsman. In recent years, we have strived to improve the response time and investigation of cases received. In 2021, we are within the goal set (up to 60 days) for the provision of responses to reporting parties.

With regard to training, we ended the year with 100% of active employees trained in terms of the Code of Conduct and compliance policies. We ended the year complying with our communication plan and training actions planned for the period.

Grievances	2020		2021	
	Relationship Center (0800, Contact Us and email)	Ombudsman Channel	Relationship Center (0800, Contact Us and email)	Ombudsman Channel
Grievances identified by our channels	1,355	386	3,089	321
Number of grievances addressed	1,355	386	3,089	321
Number of grievances solved	1,355	179	3,051	284
Grievances filed before the reporting period, which were solved in 2021	29	18	0	165

Human rights management

103-2, 103-3 | 406, 103-2, 103-3 | 410, 410-1, 103-2, 103-3 | 412

Since 2013, we have carried out mapping, analysis and management of risks related to Human Rights. Based on the last assessment carried out in 2021, we generated an action plan that corroborates the implementation of Sustainability and Human Rights strategies for the coming years, among which we highlight the preparation of Samarco's Human Rights Policy and capacity building of all own employees and third parties. We prioritize respect for human rights and the interests, cultures, customs and values of employees and communities. Our statements are endorsed by ICMM and include commitments that we are committed to implementing.

Regarding third-party management, we have direct audits of different topics and support contractors in implementing practices that are of interest to Samarco. We have retained teams specialized in field audit work. Moreover, we periodically conduct human rights training for our property safety personnel. In 2021, 180 people were trained, representing 90.9% of the total number of contractors working in our safety teams.

Cases of discrimination

GRI 406-1

	2019*	2020*	2021**
Cases analyzed	2	6	3
Cases with a remediation plan in place	-	-	0
Cases with a plan in place and results analyzed	-	-	3
Cases already solved and completed	2	6	3
<b>Total</b>	<b>2</b>	<b>6</b>	<b>3</b>

\* 2019 and 2020: Reports classified as discrimination or other human rights violations that were under investigation in 2019 and 2020 generated improvements in processes | are being monitored by the Conduct Committee with actions in progress by the parties in charge.

\*\* 2021: The reports classified as discrimination and other human rights violations were analyzed, investigated and closed. There were actions derived from the investigations aimed at improving processes, and all cases were reported to the Conduct Committee.

TAX MANAGEMENT

GRI 103-2, 103-3 | 207, 207-1, 207-2, 419-1

We operate guided by assumptions of transparency and integrity in our tax management practices. We monitor any regulatory changes that apply to the business, to effect controls of risks and opportunities that affect our capital structure.

Our guide is compliance with current legislation, both for our direct operation and in relations with suppliers and partners. We study and identify possibilities for reducing the tax burden, hidden liabilities and ways to mitigate risks. Our Financial Board analyses and approves the tax strategy. We also rely on the advice of the Financial Committee and the Tax subcommittee, which act in support of the Board of Directors and have in their structure Samarco, Vale and BHP representatives, with regular monthly and extraordinary meetings on demand. The description of the relationship with tax authorities can be found in the policies and in the Company's Code of Conduct.

We also dedicate in our economic management to the control of any non-conformities or arbitrations related to socioeconomic aspects. In 2021, we did not register non-monetary penalties, nor cases addressed through arbitration mechanisms. Regarding fines, we had a history of amounts of BRL 927,217,119.16 (2019), BRL 40,743,043.45 (2020) and BRL 3,737,002,280.05 (2021) related to charges by the Brazilian Internal Revenue Service, non-approved compensations, and other tax assessments, it is worth mentioning that a large part of the amount mentioned for the year 2021 is not a tax contingency, but an impact on the Tax Loss and the Negative Tax Basis of the Company, due to the disallowance of expenses considered by the inspection as non-deductible in the calculation of IRPJ and CSLL (Social Contribution on Net Income).



BRL 3.7 billion

In the amount of fines during the year (non-approved offsets and other tax deficiency notices)



# Our people

GRI 103-2, 103-3 | 401, 103-2, 103-3 | 402, 103-2, 103-3 | 402 | 404, 103-2, 103-3 | 405

The way in which we attract, retain and develop talent is fundamental for Samarco's future. After 5 years of interrupted operations and a significant reduction in staff, throughout 2021 we experienced a complete cycle of resumed operations, guided by our purpose and mobilizing investments, with a commitment to respect for diversity and human rights, with mental and physical well-being of our teams, engagement in the Company's vision of the future, and the constant search to provide the necessary knowledge for carrying out mining differently.

Although we have great alignment between the values of our employees and organizational values, we persist in understanding the need for cultural evolution, we were guided by our values in this cycle of intense challenges, especially by partnership and trust in relationships and the constant search for humbleness. We believe that each of our approximately 1,500 employees is essential for regaining society's trust.

Proceeding with our journey, we continued with the implementation of the Samarco Culture Program, keeping an eye on the aspects under development, while, at the same time, recognizing the evolution already achieved and reflecting on the business imperatives for the next three years, we identified the need to expand the scope of our activities, including in our



Employees of Samarco in Espírito Santo and Minas Gerais.

strategy the development of three new traits: accountability, sustainability and integration.

We ended 2021 with almost 100 direct employee admissions, 5% increase to meet structuring and incremental projects of the Company, in line with the gradual process of resumption of capacity.

In the year, 52% of the direct hires were local labor, in Minas Gerais and Espírito Santo. The high volume of third parties is due to works and projects in progress. In relation to them, 92% were residents of local communities.

The efforts made for resumption of our people management practices were reflected in the Organizational Climate Survey, carried out with the support of FIA Employee Experience (FEEEx), Fundação Instituto de Administração (FIA) and UOL. We had 1,357 participations among employees, representing 90% adhesion, and a favorability index of 90.2%.

As a result, we were ranked 1st in the study in the steel and mining sector, in addition to 2nd place among large companies and 22nd place in the general ranking of the Incredible Places to Work 2021 award.

Samarco cares for respectful relationships with employee representative bodies. In situations where changes with substantial impact on employees may occur, we establish negotiation processes with the Unions, and seek to structure change management plans that minimize possible problems. Throughout the process, Unions and employee representatives address the monitoring and validation of compliance with the agreement. **GRI 402-1**

# POLICIES AND STRATEGY

GRI 103-2, 103-3 | 202

Our people management policies are based, as throughout our journey, on a comprehensive look at human capital as a strategic and essential asset of the Company. Representing a new journey for Samarco, 2021 was a year of continuity in actions focused on culture, diversity, health and safety – in line with the challenges and key projects of the period. It was also a time to reaffirm the Company’s regional economic impact and reinforce our contribution to the development of the regions that welcome us. In addition to our direct employees, the Company had approximately 7,550 indirect workers and partner suppliers.

Among the challenges outlined for the year were several topics related to the management of human capital in dialogue with the enforcement of the business plan, such as labor productivity, the evolution of the organizational culture, safety and actions for knowledge management.

During the year, we dealt with the impacts of the pandemic – which required the Company to promptly adhere to sanitary protocols, and minimize the inevitable impacts on the routine of structuring projects and operations. The mental health of our team was also a focus of attention: with the support of our leaders, an increasingly careful look at self-care has been encouraged, as well as the design of limits and characteristics for the hybrid work model.

Despite the improvement in the sanitary situation, as of the second half of the year, we maintained our efforts in terms of the hybrid model for administrative and support areas – in which our employees work at home two days, and at the office three days. We understand that this model can optimize each person’s time, reinforce the team’s well-being, make the use of assets and resources more efficient, and connect Samarco to current work-related assumptions.

- Highlights
- 97 admissions in 2021
  - 63 from local community (64%)
  - 68% of vacancies filled by former employees

# TEAM PROFILE

GRI 102-8

## Per type of agreement

	2019			2020			2021		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Undetermined time	985	163	1,148	1,239	220	1,459	1,259	228	1,487
Undetermined time	3	8	11	0	0	0	0	0	0
Total	988	171	1,159	1,239	220	1,459	1,259	228	1,487

## Per region

Southeast Region	2019			2020			2021		
	Anchieta (ES)	Mariana (MG)	Belo Horizonte (MG)	Anchieta (ES)	Mariana (MG)	Belo Horizonte (MG)	Anchieta (ES)	Mariana (MG)	Belo Horizonte (MG)
Undetermined time	1	10	1	0	0	0	0	0	0
Undetermined time	431	753	116	484	850	125	489	863	135
Total	432	763	117	484	850	125	489	863	135

Samarco has only employees in the Southeast region, full-time contracts for an indefinite period, and its main activities are carried out by its own employees.

The data does not consider apprentices, interns, board members, people on INSS leave and in union activity.



Per age group

	2019	2020	2021
Below 30 years	97	88	67
Between 30 and 50 years	1,094	1,216	1,234
Above 50 years	121	155	186
Total	1,312	1,459	1,487

Per functional category

	2019	2020	2021
Executive Board	4	4	4
Management	29	35	38
Head/coordination	39	37	37
Technical/supervision	50	58	55
Administrative	729	807	449
Operational	461	518	904
Total	1,312	1,459	1,487

In 2021, the assumption of classification of functional category was changed, including administrative technicians in the “administrative” category and operational technicians in the “operational” category.

ADVANCES  
IN THE DIVERSITY  
AGENDA

Samarco has a broad understanding of diversity and is attentive to the particularities of the sector. This is a strategic topic for our business. It is clear that diverse teams have more flexibility in decisions, are more likely to propose new ideas and are more productive.

In 2021, we had the support of the Mais Diversidade consultancy, which helped us to structure governance for the Diversity, Equity and Inclusion Program. We have structured a multidisciplinary committee composed of general managers, leaders and specialists from different areas, who are references in the organization; we started the discussion of goals; and we are working in line with our shareholders and the Brazilian Mining Institute (Ibram) to understand which commitments are most relevant to the business.

The Diversity, Equity and Inclusion Program was launched in January 2022 and prioritized four minority groups: Race, LGBTi+, Gender Equity and People with Special Needs. Goals related to the topic are planned for 2022. In our code of conduct and compliance policies, we have a specific item that deals with the subject.

Today, we are focused on agendas related to minority groups. In terms of gender, we are still an essentially male Company at most functional levels, but our Diversity, Equity and Inclusion Program has been adopted to drive discussions on the matter. Since 2020, we have joined the Women In Mining Brasil Action Plan, supported by the Brazilian Mining Institute (Ibram). **GRI 102-12**

2021							
Diversity profile of our team per functional level/area (%) GRI 405-1	Men	Women	Below 30 years	Between 30 and 50 years	Above 50 years	Black people	PCDs
Board of Directors	75	25	0	50	50	0	0
Executive Board	84.21	15.79	0	71.05	28.95	0	0
Managers and General Managers	81.08	18.92	0	72.97	27.03	3	0
Technical/Supervision	98.18	1.82	0	85.45	14.55	4	0
Administrative	59.24	40.76	4,90	80.62	14.48	3	10
Operational	96.68	3.32	4,98	85.07	9.96	13	4

\* There is no specific data about the Board of Directors.

For race and LGBTi+, self-declaration is required, a census will be carried out in 2022 to update this information.

Active/effective employees in the company on 31 December 2021 were considered. interns, trainees, apprentices and third parties for were not considered.

Highlights

15 of leadership positions held by women

4 affinity groups implemented in the Company - Race, LGBTi+, Gender Equity and People with Special Needs

# PERFORMANCE AND CAREER

GRI 404-3

We consider it crucial for the future of Samarco to develop and ensure the proper circulation of knowledge about our processes, businesses and activities. Therefore, we work continuously to study opportunities

for our professionals to know and evaluate their performance. In 2021, we conducted a performance appraisal in a cycle that had its methodology revisited in the context of the resumption of operations.

Employees covered by performance and career analysis		2021		
		Men	Women	Total
Executive Board	number	2	1	3
	percentage	66.67%	33.33%	100.00%
Managers and General Managers	number	32	6	38
	percentage	84.21%	15.79%	100%
Management and Coordination	number	28	7	35
	percentage	80.00%	20.00%	100.00%
Technical/Supervision	number	54	1	55
	percentage	98.18%	1.82%	100.00%
Administrative	number	247	166	413
	percentage	59.81%	40,19%	100.00%
Operational	number	832	25	857
	percentage	97.08%	2.92%	100.00%
Total	number	1,195	206	1,401*
	percentage	85.30%	14.70%	100.00%

\* 86 employees did not receive performance evaluation in 2021.

# OUR BENEFITS

GRI 401-2

As a way of attracting and retaining professionals, we combine the offer of career opportunities with various benefits, which cover the entirety of our operations. There is no relevant distinction between the benefits of our units. Except in the case of food allowance, where application is restricted only to areas where we do not have an industrial restaurant. In 2021, the following benefits were active:

- Life insurance
- Health plan
- Telemedicine Einstein Conecta
- Maternity/paternity leave
- Pension fund/benefit plan
- Daycare allowance
- Sick-allowance
- Funeral assistance
- Paternity allowance
- Transfer allowance
- Christmas card
- Vacation Loan
- Gympass
- School kit
- Transport
- Industrial restaurant
- Uniforms
- Food voucher
- Book Voucher
- Meal voucher

100% of the team evaluated for its performance, from the board to the operation



Samarco employees from Ubu Complex, ES



# HIRING AND TURN-OVER

GRI 401-1

	2019		2020		2021	
Hired employees per age group	Nº	Rate %	Nº	Rate %	Nº	Rate %
Below 30 years	29	0.02	19	0.01	17	0.01
Between 30 and 50 years	172	0.13	178	0.12	78	0.05
Above 50 years	8	0.01	13	0.01	2	0.00
<b>Total</b>	<b>209</b>	<b>0.16</b>	<b>210</b>	<b>0.14</b>	<b>97</b>	<b>0.07</b>

	2019		2020		2021	
Employees hired, per gender	Nº	Rate %	Nº	Rate %	Nº	Rate %
Men	161	0.12	185	0.13	70	0.05
Women	48	0.04	25	0.02	27	0.02
<b>Total</b>	<b>209</b>	<b>0.16</b>	<b>210</b>	<b>0.14</b>	<b>97</b>	<b>0.07</b>

	2019		2020		2021	
Employees hired, per region	Nº	Rate %	Nº	Rate %	Nº	Rate %
Anchieta (ES)	40	0.03	71	0.05	26	0,02
Mariana (MG)	133	0.10	127	0.09	49	0,03
Belo Horizonte (MG)	36	0.03	12	0.01	22	0,01
<b>Total</b>	<b>209</b>	<b>0.16</b>	<b>210</b>	<b>0.14</b>	<b>97</b>	<b>0.07</b>

	2019		2020		2021	
Employees who left the company, per age group	Nº	Rate %	Nº	Rate %	Nº	Rate %
Below 30 years	2	0.002	3	0.002	6	0,00
Between 30 and 50 years	48	0.04	47	0.03	48	0,03
Above 50 years	6	0.005	15	0.01	4	0,00
<b>Total</b>	<b>56</b>	<b>0.04</b>	<b>65</b>	<b>0.04</b>	<b>58</b>	<b>0,04</b>

	2019		2020		2021	
Employees who left the company, per gender	Nº	Rate %	Nº	Rate %	Nº	Rate %
Men	40	0,03	55	0,04	44	0,03
Women	16	0,01	10	0,01	14	0,01
<b>Total</b>	<b>56</b>	<b>0,04</b>	<b>65</b>	<b>0,05</b>	<b>58</b>	<b>0,04</b>

	2019		2020		2021	
Employees who left the company, per region	Nº	Rate %	Nº	Rate %	Nº	Rate %
Anchieta (ES)	23	0,02	18	0,01	16	0,01
Mariana (MG)	17	0,01	38	0,03	30	0,02
Belo Horizonte (MG)	16	0,01	9	0,01	12	0,01
<b>Total</b>	<b>56</b>	<b>0.04</b>	<b>65</b>	<b>0,05</b>	<b>58</b>	<b>0,04</b>

The turnover rate was calculated according to the following formula: (employees terminated [per gender, region or age group] / number of employees [per gender, region or age group]) x 100.

Maternity/paternity leave – usufruct and post-return stayo GRI 401-3

		2020	2021
Employees who were entitled to take leave	Men	1,239	1,259
	Women	230	228
Employees who took their leave	Men	57	46
	Women	14	18
Employees who returned to work, in the reporting period, after the end of the leave	Men	57	45
	Women	14	17
Employees who returned to work after leave and remained employed 12 months after returning to work	Men	54	56
	Women	12	12
Return rate	Men	1	1
	Women	1	1
Retention rate	Men	284%	98%
		86%	86%

Saber Samarco Platform focuses our corporate education actions and revised fact, in 2021, in line with our purpose


## TRAINING AND EDUCATION

GRI 404-1

Our Saber Samarco Corporate Education platform was repositioned, taking as a starting point Samarco’s purpose of carrying out a different and sustainable mining, capable of generating results and building value for society. We are guided by the strategy of business; resumption of operations; listening to the demands of managers; the results of an audit process and the climate survey; training evaluations; and the budget made available in our first year of operation since 2015.

Saber Samarco is structured on 5 fronts: Way of Being, Leadership, Business Sustainability, Innovation and Mine to Port. Each one has specific development actions aligned with the needs of the business. We also changed the training platform, replacing to Success Learning.

The training and education metric is measured annually by calculating training hours per person (Training hours per person = total number of training hours / total employees). During 2021, we had a lower average compared to 2020, marked by intense preparation for the resumption in that period.



46,182.78 thousand total hours of training during the year

Average hours of employee training by gender	2020	2021
Men	48.89	31.28
Women	21.22	29.82
<b>Total</b>	<b>44.71</b>	<b>31.06</b>

Average hours of training per function category	2020	2021
Executive Board	18.11	15.12
Managers and General Managers	26.36	36.54
Management and Coordination	32.91	34.12
Technical/Supervision	61.72	39.11
Administrative	25.82	27.64
Operational	54.01	31.98



# Safety and *innovation*

Plan View of the Filtration System of the Germano, Mariana and Ouro Preto Complex (MG)





Samarco employees who work in the Ubu Complex (ES)

## Respect for life

GRI 103-2, 103-3 | 403 403-1, 403-2, 403-3, 403-4, 403-6, 403-7

From the perspective of our Strategic Map, one of Samarco's main purposes is to provide a safe and healthy work environment, which reinforces our commitment to the quality of life of our employees. The actions in occupational health and safety were critical and decisive in this first year of fully resumed operations.

In 2021, after reviewing the health management processes, we implemented preventive actions with employees in relation to the control of health problems. We work from the perspective of an Integrated Health Management, working with the person in all dimensions of health (Physical, Social, Professional, Emotional and Spiritual).

Our Occupational Health and Safety guidelines, in turn, are described in the Occupational Health and Safety Management System Manual. The document is available on the intranet for all employees. The manual provides a methodology for the Identification, Analysis, Assessment and Control of Occupational Health and Safety Hazards and Risks, Treatment of Unsafe Conditions and Near-Misses, in addition to Incident management. We act in a critical and preventive manner, with the purpose of preserving lives, developing leadership, behaviors and systems.

We carry out internal inspections to monitor the occupational safety performance of the units. We perform wave inspections in the field to understand controls related to critical risks and monthly leadership inspections, according to their responsibility matrix. The Zero Accident program is one of our work assumptions that we will focus on throughout 2022, and has the direct engagement of our CEO and Executive Board, in addition to having its effectiveness constantly monitored by shareholders.

The performance indicators of the Integrated Health Management programs are submitted to committees and the Board on a monthly basis, in addition to presentations to the Internal Commission for Accident Prevention (Cipa) and to the Internal Commission for the Prevention of Mining Accidents (Cipamin), made up by employee representatives.

Risks and dangerous situations in safety and also in health are reported through the Preliminary Risk Analysis (PRA). The right to refuse to perform any activity that may pose a risk is included and this is a guarantee also specified in the public notice for suppliers.

In addition to the relationship with the Company's own employees, our Code of Conduct and our policies also encompass the Management of Suppliers in Health and Safety, ensuring the alignment of risk prevention and control practices with suppliers and business partners.

The health area has had the Quality of Life Program for 20 years, with actions aimed at promoting self-care to encourage the implementation of healthy habits and lifestyle among employees, contractors and their families, contributing to health promotion and disease prevention, and reflecting on improved personal and organizational well-being. All data is processed in compliance with the Code of Medical Ethics and the General Data Protection Law.

In the operational units, we have a structure for a medical clinic, occupational physician, nurses, speech therapists, psychologists and social services, in addition to having an ambulance service with a pre-hospital healthcare team, with professionals prepared to work in industrial emergencies and transportation of employees in case of accidents and sudden illnesses to the reference hospital units.

In our Occupational Hygiene and Ergonomics Process, we established the methodology for anticipating, recognizing, evaluating and controlling environmental risks at work stations, the exposure of which can damage the health and well-being of employees.



## Falaad, Active Care and Pots

In 2021, we continued the FCA Program (FALAAD and Active Care), motivating Samarco team and contractors to comply with procedures throughout the working day, keeping people on constant alert, recognizing the team's good practices operational and leaders who stand out with their teams in complying with procedures.

FALAAD is a methodology for guiding employees to effectively observe the risk factors involved in the execution of a task, guiding them to carry out an assessment of their entire surroundings, in order to identify present risks (FALAAD - F: front / A: back / L: side; / A: above / A: below / D: inside).

Active Care is the basic principle of preserving and valuing life in the work environment, that is: I take care of myself, I take care of you and I allow you to take care of me.

At FCA, in 2021 we recognized 476 employees in Germano, of which 111 were Samarco's and 365 were hired. In Ubu, 461 people were recognized, 107 from Samarco and 354 from contractors.

POTS - Safe Work Observation Program: employees selected to be observers of safety activities in the areas.

## FACING THE PANDEMIC

In 2021, still as a result of the pandemic scenario, actions were aimed at aspects of the emotional, physical and social dimension with monitoring and guidance from a multidisciplinary team for employees in isolation or preventive leave due to Covid-19.

We have expanded our actions from the perspective of integrated health, from the perspective of the physical, mental and social health dimensions, in addition to maintaining the rules of coexistence such as scheduling, social distancing, home office practices and covid testing for the screening of asymptomatic

patients in the units; Progress of the actions of the Program for the Prevention of Misuse of Alcohol and Other Drugs and Fatigue Management.

The implemented isolation measures and the preventive action to remove employees with flu syndrome impacted the absenteeism rate, which remained at 1.74, above the target set for a rate below 1. As for the health profile, we closed 2021 with 87% of employees in the satisfactory health profile, above the stipulated target of 85%, which demonstrates effective health management with our employees.

## QUALIFICATION AND TRAINING GRI 403-5

The training is included in the employee development path, according to the training matrix for each position, made available in a computerized system on the Saber Samarco platform.

Health and safety training, in all, totaled 1,918.5 hours and mobilized 448 participants, with the following pillars:

- Induction
- Integrated Health and Safety
- Hearing Conservation Program - PCA
- Program for the Prevention of Misuse of Alcohol and Other Drugs
- Hazardous Materials, Respiratory Protection Program - PPR and NR 06
- Personal Protective Equipment - PPE

Occupational accidents* <small>GRI 403-9</small>	2019	2020	2021
Number of worked hours	10,978,420	11,701,125	13,602,935
Rate of fatalities resulting from work-related injuries**	0	0	0
Number of serious work-related injuries	2	2	4
Rate of serious*** work-related injuries	0.18	0.17	0.29
Number of work-related injuries recorded	11	9	16
Rate of work-related injuries recorded	1.00	0.77	1.18

\* The value of own employees and third parties is unified.

\*\* There were no deaths resulting from work-related injuries

Basis of number of worked hours: 1,000,000

\*\*\* are considered serious injuries at Samarco LTA

# Asset risk and safety

GRI 102-11, 102-15, 102-30, 102-31

Risk management that includes safety, strategy, operations, reputation and tangible and intangible assets is a requirement for the success of Samarco's Strategy Map and is among the commitments assumed by us after the Fundão dam collapse.

Our work on this topic has a multidisciplinary perspective: it starts in our Risks area, with breakdown in the advisory committees and in the very performance of the Board of Directors and the Executive Board, and breaks down in the management rituals of the areas of projects, sustainability, engineering and geotechnics, compliance, supplies, among others.

The Risk Management Policy and our Corporate Risk Manual are the main guiding documents on the subject. They were reviewed in the context of preparation for the resumption of operations and, in 2021, they were updated again, with training for all those in charge of and/or involved with critical controls of risks considered relevant. The documents take a comprehensive look at the relationship between safety – of people, processes, operations and assets and infrastructure – and integrity.

Our executive officers, directors and members of advisory committees work directly on the topic, with the risk agenda integrated into joint meetings and discussions. In 2021, we remain committed to the target of reducing our business risks and recorded significant figures for governance and management on the subject:

We also paid special attention to the preparation pillar, with actions to ensure readiness to respond to eventual materialization of risks and management of their consequences. In this direction, in 2021 we concluded response plans for 24 risks and simulations for 41 risks. Two particularly critical themes of the year mobilized the identification of new risks and the reanalysis of some that already existed: the judicial reorganization proceeding and the process of renegotiating the TTAC with the mediation of the National Council of Justice (read more on pages 21 e 30).

Another highlight of the year was the beginning of the implementation of our Corporate Risk System, strengthening the computerization of the monitoring of risk factors, and ensuring data control, traceability and quality of information, and standardized analysis flows. Also in 2021, we certified the area dedicated to the topic in ISO 31000, an international standard for risk management.

## Target in 2021:

- 84 governance meetings;
- 16 internal and/or independent audits performed;
- 46 risks assessed;
- 357 controls reviewed;
- 368 actions completed.

# STRUCTURE, GOVERNANCE AND CLASSIFICATION

Our risk analysis has an integrated governance that includes monthly agendas for discussion of corporate risks, survey of actions and controls, analyses of effectiveness, seminars and workshops for reassessment of risk mapping, considering the criticality of risks and providing accountability to shareholders, regulators and other audiences.

We have adopted the lines of defense model, to make sure that the matter moves from the leadership spheres to the business areas and teams (first line), has an independent area specialized on the topic (second line), and is analyzed by internal audit processes (third line), which oversee and review the quality of our critical control effectiveness and risk management processes.

In the sphere of senior leadership, risk management is on the agendas of several advisory committees: Risk, Audit and Compliance Committee; Sustainability Committee; Finance Committee; Tax Subcommittee; Technical and Operations Committee; Geotechnical Subcommittee; and Legal Committee.

Our risk map is divided into the following categories:

- strategic: Events that may impact Samarco's strategic objectives, and may even generate new business opportunities;
- operational: Events that may impact Samarco's operation/maintenance and its going concern;
- projects: Events inherent to the implementation of projects that may impact Samarco's objectives;



Internal drill for employees and contractors of Samarco, Germano Complex (MG)

- workplace Safety: Exposure of people to a scenario that has the potential to cause injuries and/or fatalities

Due to our history and the nature of our sector, environmental, social and governance (ESG) issues are present across the portfolio of risks and opportunities. They are especially important in strategic risk analysis routines, as their scope is corporate, involving a series of tangible and intangible factors. Among the risks linked to ESG factors, we highlight the following: violation of human rights, loss of social license, antitrust practices, non-compliance with environmental parameters and requirements, risks associated with the de-characterization of structures and the recovery of the Risoleta Neves hydroelectric power plant.



## PROCESS AND ASSET SAFETY

Samarco's efforts to promote and build a new operating model for its business, carrying out mining differently, have as their basic assumption the guarantee of stability, integrity and safety for all operational processes and structures integrated into the Company.

We are part of a sector that - given what happened on November 5, 2015, and after the collapse of the Córrego do Feijão mine dam, in 2019 - was started by the authorities and civil society to revisit all its systems, indicators and assumptions.

We recognize our role and responsibility in this process and, over the last six years, we have assumed and fulfilled the commitment to act in a scenario of absolute robustness and safety regarding the stability of our remaining structures, 24-hour monitoring of all assets, and the process of de-characterization of upstream dams.

In practical terms, we invest intensively in projects, systems and technologies so that Brazilian society, our partners and customers, communities, and the government gradually restore the trust placed in us throughout our history.

Today, our geotechnical structures have the Monitoring and Inspection Center (CMI), the structure of which includes more than 1,500 state-of-the-art items of equipment and teams dedicated to field inspections. In 2021, we had permanent reports on dams, pits, dikes and other structures, which remain stable, as verified by independent audits and evidenced in the dam Integrity Assurance Statement (DCE), updated every six months.

We also have, in line with applicable legislation, the Emergency Action

Plan for Mining Dams (PAEBM), covering sirens installed and tested on a monthly basis in communities, and emergency drills carried out in partnership with the Civil Defense of several municipalities.

From 2016 to 2019, we carried out a series of emergency drills in communities in Mariana and Barra Longa, in addition to Matipó. Since 2020; however, no new actions of this nature have been carried out, following the guidance of the Civil Defense Coordination of the State of Minas Gerais, due to the Covid-19 pandemic.

Internally, we have conducted risk-taking drills in places such as the Germano Complex dam, in order to test our readiness and speed of response to incidents of this magnitude. In 2021, 727 people participated in internal drills carried out with employees, considering the Germano Complex and the New Dike of Macacos, in Minas Gerais. In Espírito Santo, we carried out drills to meet the Emergency Action Plan for the structures of the Norte Dam and the Muniz Freire Small Hydroelectric Power Plant. These are process and hydroelectric dams, outside the context of the PAEBM. In 2021, 59 people participated in the drills, with the participation of the Municipal Civil Defenses.

We are in line with good management practices for dams and geotechnical structures, in a context of significant changes in the sector

## Adjustment to GISTM

During 2020 and 2021, we made progress in internal discussions on adapting our tailings management standards, following new international guidelines - arising as a result of the cases of dam collapses in 2015 and 2019.

Reflecting results of the so-called Global Tailings Review, the Global Industry Standard for Tailings Management (GISTM) was developed in a process based on the work of a panel of experts from United Nations Environment Program (Unep), Principles for Responsible Investment (PRI) and International Council on Mining and Metals (ICMM).

The requirements released by the initiative are focused on ensuring safer

management of existing tailings disposal structures and setting new baselines for new construction.

In 2021, we carried out a comprehensive review of our adherence to the GISTM and started working based on the standards to review opportunities for adjustment of our tailings disposal structures and discuss budgets for the implementation of improvements in line with the requirements of the Standard. In 2022, we will have an external audit to check our processes and adherence to the plan. Adherence to GISTM requirements is expected to be completed by August 2023, in parallel with existing investments and programs.

>>>Access the [GISTM draft in Portuguese](#)  
>>> Learn about [ICMM commitments and details about GISTM](#)

## DE-CHARACTERIZATION PROCESS

The Brazilian regulatory framework for dam safety and management has undergone relevant updates since November 2015. In addition, we reaffirm our commitment to investments to gradually de-characterize some of our remaining structures, in addition to ensuring stability.

With the publication of State Law (MG) No. 23,291/2019, Joint Resolution SEMAD/FEAM No. 2,784, ANM Resolutions No. 04, 13 and 95 (the latter revoked the previous ones), as well as Federal Law No. 14066/2020, it was determined the de-characterization of all dams raised by the upstream method in Minas Gerais.



The National Mining Agency (ANM), as well as the competent state agencies, monitor and supervise the process of de-characterization of the structures raised upstream. The above-mentioned published rules strengthened, mainly in Minas Gerais, the inspection of these structures and motivated us to deliver a plan on the matter to the competent agencies, comprising two structures: Germano dam and Germano pit.

The Germano dam is the largest upstream mining tailings dam in Brazil. Therefore, the immediate commitment to complete the de-characterization process in the year 2022, as determined by state and federal regulations, represented an unprecedented challenge for the Company. The same occurs for the Germano Pit, which, despite being a drained pile, was characterized as a dam and follows the same recommendations for de-characterization as the dams raised upstream. During 2021, Samarco sought, along with specialized contracted consultants, support to demonstrate the need to implement the planned activities in a logical and technically viable sequence to guarantee the safety of each of the service fronts; therefore, the planning for of the de-characterization process pointed to the year 2029 as the probable conclusion date.

Germano's de-characterization plan is divided into three stages. The first aims at assuring the long-term stability of the structures; the second contemplates the implementation of a robust surface drainage system. The third involves the reconfiguration and revegetation of the area, without the formation of permanent lakes.

At the end of February 2022, we signed a Term of Commitment with the Government of Minas Gerais, through the State Foundation for

the Environment (Feam), the Public Prosecution Office of Minas Gerais (MPMG) and the Federal Public Prosecution Office (MPF), and the intervention of the National Mining Agency (ANM), in order to ensure that the decharacterization of the Company's structures is completed within an appropriate period.

The decharacterization works, which began even before the 2019 law went into effect, are at an advanced stage and are monitored by the Public Prosecution Office of Minas Gerais through a specialized independent audit, in compliance with current state and federal standards.

We reinforce our commitment to the safety of people and the environment and to continue the project to decharacterize our two dams built using the upstream method.

In 2021, of the total BRL 598.09 million invested in 8 programs and 38 projects by the Company, approximately 85% of the amount was allocated to the Germano Dam and Pit Decharacterization Program.

The works are at an advanced stage and are monitored by the Public Prosecution Office of Minas Gerais through a specialized independent audit

### 2021 OUTLOOK: OUR DE-CHARACTERIZATION PROJECTS\* IN NUMBERS



2.5 million  
cubic meters in earthworks activities

300 tons  
of metal structures

2,500  
active contractors throughout 2021, totaling

More than  
3 million  
man-hours worked in the period

\*data from the structures of the Germano Dam and Pit.



# Germano: de-characterization plan

OUR CHALLENGE

Gradually deactivate Germano dam and Germano pit.  
  
Report monthly to the Public Prosecution Office of Minas Gerais, with a specialized independent audit.

PROJECT IN NUMBERS

**2,500**  
active contractors  
throughout 2021, totaling

**300 tons**  
of metal structures

**2.5 million**  
cubic meters  
in earthworks activities

**10 thousand**  
cubic meters of used concrete

**More than 3 million**  
man-hours worked in the period

OUR COMMITMENT

**100%**  
of the reports and audits  
verified the stability of the dam

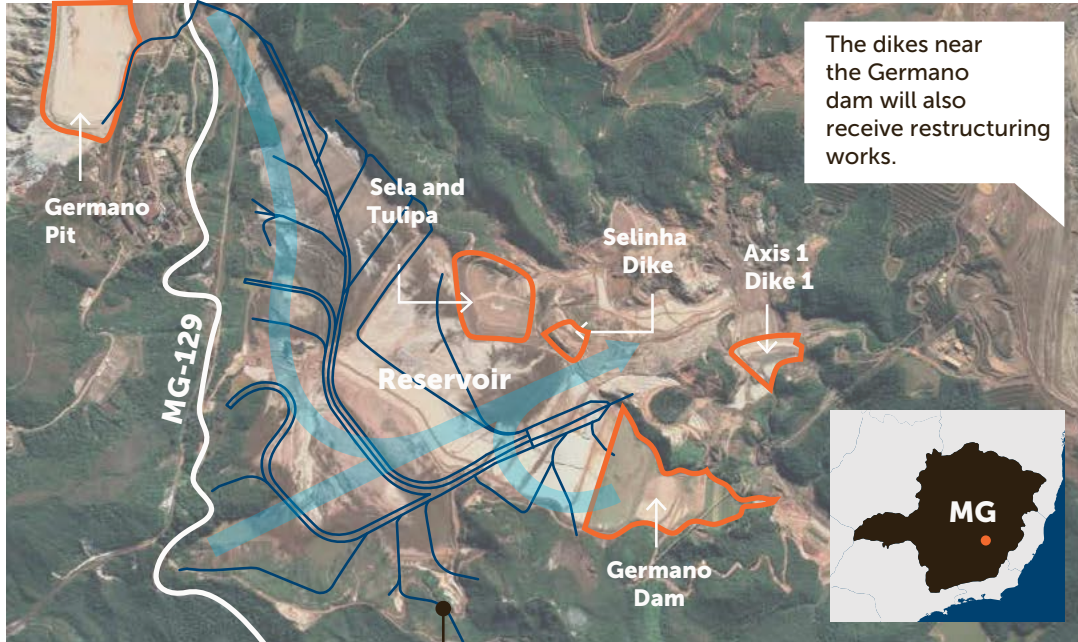
Schedule updates and revisions  
always discussed with authorities  
and public authorities

Our Germano tailings dam is the largest upstream method built in Latin America. It has a capacity of 130 million cubic meters of tailings. The dam is inactive and has not received tailings since 2013.

THE WORK

**Step 1**  
Long-term stability assurance of all structures – strengthen and attest to the integrity of the dam area

WHERE IT IS



**Step 2**  
Implementation of a robust surface drainage system – measure to ensure that there will be no more accumulation of water in the dam

Internal channels will lead the flows to a main drainage channel to be implemented in natural terrain.

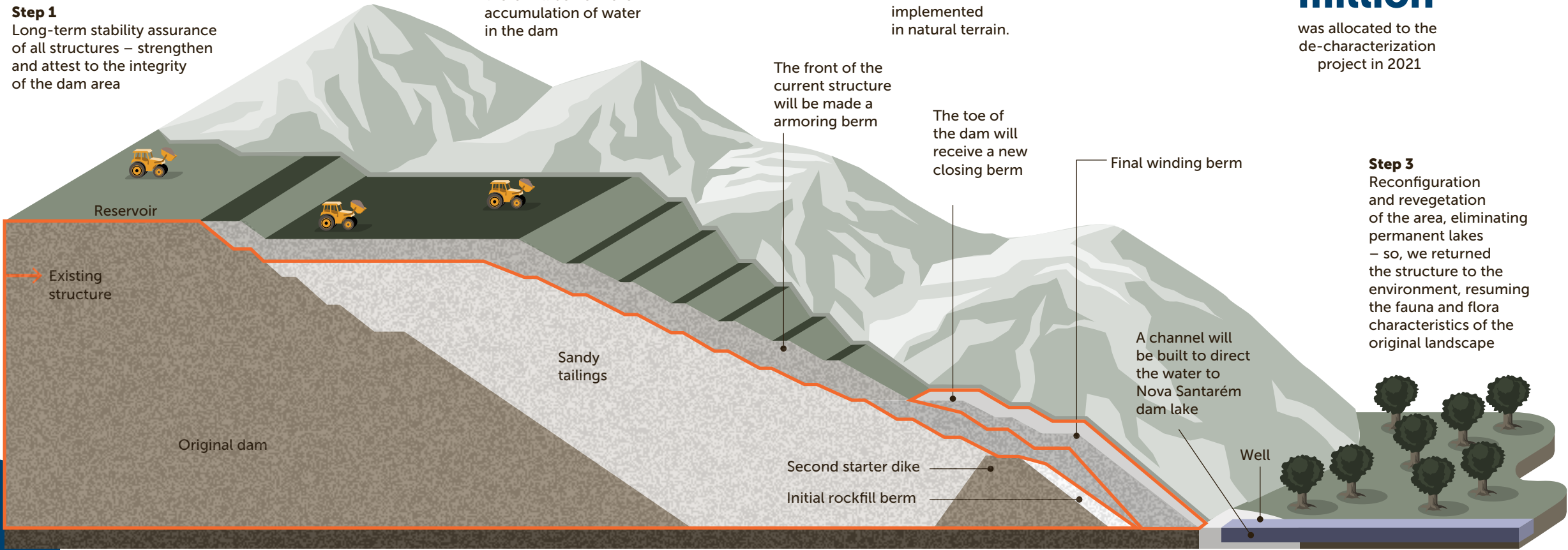
The front of the current structure will be made a armoring berm

The toe of the dam will receive a new closing berm

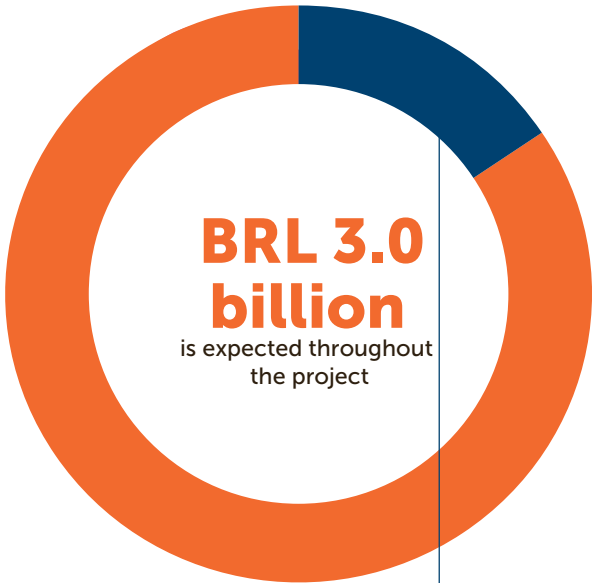
Final winding berm

A channel will be built to direct the water to Nova Santarém dam lake

**Step 3**  
Reconfiguration and revegetation of the area, eliminating permanent lakes – so, we returned the structure to the environment, resuming the fauna and flora characteristics of the original landscape



OUR INVESTMENT



**BRL 510.09 million**  
was allocated to the de-characterization project in 2021

## Candonga HPP

Since the end of 2020, we have been responsible for the execution process of Program 9 - Rehabilitation of the Reservoir of the Risoleta Neves Hydropower Plant (Candonga HPP), through cooperation with the Renova Foundation. During 2021, we advanced in actions, managed to set the sediment removal plan in the 400-meter region and established guidelines for projects to armor the main dam, in agreement with the Candonga Consortium.

These actions and the mechanical recovery of the energy generating units are fundamental for their operational resumption. The entire process is carried out in dialogue with the Public Prosecution Office and the National Electric Energy Agency, and we regularly monitor the progress of planning to ensure the feasibility of resumption with the best generation availability.

The work to de-characterize the sector 4 dam and the removal of existing sediment in the reservoir were the main activities in the region close to the Risoleta Neves HPP. Altogether, approximately 300,000 m<sup>3</sup> of sediments were removed and confirmed, through technical notes, that the dam was de-characterized.

Some improvements were also delivered to the municipalities of Rio Doce and Santa Cruz do Escalvado (MG), the rehabilitation of Fazenda Floresta and the consolidation of the planning of all the requirements listed in the Corrective Operation License obtained at the end of 2020. Concurrent with these actions, numerous environmental control activities were also carried out in the territory, focusing on the following themes: waste, forest management, chemicals, noise and vibration, environmental liabilities, water resources and atmospheric emissions. In Candonga, the Environmental Education Program was also started in 2022.

The projection is that the operational resumption of the HPP will occur throughout the year 2022.

>>> All details on our geotechnical structures and investments are [here](#)

## Innovation and new business

GRI 102-13

The year 2021 was marked by the acceleration of investments in innovation. The resumption of operations made room for all our teams to identify and develop new opportunities for improvement. At the same time, we encourage the development and maturation of processes and tools to support innovation management, with a view to complying with our Strategy Map. In 2021, approximately BRL 22 million were invested in innovation projects.

In the R&D line, the innovation area has advanced in projects for the reduction, use and disposal of tailings - some of which are already starting tests on an industrial scale, as our capacity resumption planning depends directly on the study of alternatives in this field (read more on page 106). In the Open Innovation line, we expanded our operations at the Mining Hub and FindesLab, in addition to advancing solutions and new businesses created from the MinerALL Challenge.

We also started projects for new operations, such as the sale of pellets by road logistics and the

acquisition of pellet feed via port, in a partnership between the areas of Operation, Commercial and Marketing, Environment, Asset Management, Information Technology and Innovation.

We focus on getting closer to other hubs, such as FIEMG Lab (linked to the Federation of Industries of the State of Minas Gerais), 100 Open Startups and CDMEC, and we have interacted with startups that operate in several areas. We seek support from the Brazilian Industrial Research and Innovation Company (Embrapii) with two accredited units for projects for the use of tailings inside and outside the steel industry. We are participating in several work groups of Ibram's Letter of Commitment to society.

The Sustainability agenda has proven to be increasingly strong in directing investments in technology and innovation in the mining area. Thus, the challenges related to safety, reduction of tailings, creation of shared value with communities and decarbonization are trends that are increasingly strong.

We are attentive to global trends relevant to the Brazilian scenario, both from the point of view of regulation and legislation and from the point of view of demand from the steel market, which has been accelerating its movement towards carbon neutrality in production chains. Digitization will also continue to be a relevant agenda in the coming years.

In 2021, we focus on developing projects for the reduction, use and safe disposal of tailings, especially slimes. On the reduction front, the project to adjust the desliming of Concentrator 3 has already been able to reduce the generation of slimes at Samarco by 4.5%, with a significant impact on the useful life



**BRL 22 million**  
was our consolidated  
investment in innovation



of our tailings disposal structures, in addition to enabling a better use of our mineral resource and extension of life-of-mine. The projection for 2022 is to achieve a percentage reduction in slimes generation of approximately 17%.

In terms of exploitation, we started studies related to the concentration of slimes. Two main directions are being explored: the incorporation of the noblest part of the slimes into the Samarco concentrate for the production of pellets; and the development of technological routes for the production of co-products for the steel market.

We are studying new technologies for slimes dewatering and disposal in an even safer and more efficient way in terms of land use. In 2021, we completed an initial stage of this study, to get to know in more depth the behavior of our tailings – slimes and sandy – in dewatering (filtration) processes and, in particular, stacking. In 2022, we made progress in the second phase of this project: a semi-industrial scale assessment of the proposed solution in the form of an experimental landfill, which will be developed over the next two years.



## Miner ALL Challenge

In 2021, we finalized the proofs of concept of the startups created in the program: EcoMud and Geeco. EcoMud’s proof of concept consisted of paving 11km of side roads in the municipality of Mariana (MG) with a rigid pavement made with slimes, binder and soil. Geeco manufactured 50x50 cm floor tiles with geopolymer produced from sandy tailings and installed them in the UFMG’s Laboratory of Geotechnologies and Geomaterials. The first edition of the Challenge was held in 2018 and will still reap important results in the deployment of the solutions developed.

## Mining Hub

Samarco has participated in the Mining Hub since its implementation in 2019. In 2021, we participated in the 5th cycle of its M-Start program, launching the Remote Energy Blocking challenge. The proof of concept approved for scale deployment in 2022 was developed by startup Inspeasy. It is a method of blocking energy by applying state-of-the-art technology. They are digital devices for blocking and unblocking energy sources, controlled by means of a password and remote access. This project will bring more safety to our processes by reducing failures in the execution of energy blocking, in addition to a gain in productivity in maintenance activities.

## Findeslab

We participated in Findeslab for the first time in 2021. We enter the second cycle with two challenges: Optimization of Maintenance Schedule and Creation of a Digital Twin for the Combustion System of the Pelletizing Furnace of Plant 4. Proofs of concept for these challenges were developed by startups IndustriALL and Minerva, respectively. These projects will be validated in the first half of 2022.

## Overview and prospects

We enter 2022 with important challenges in R&D, including:

- develop a complete concept for dewatering and disposal of slimes in stacks (dry stacking), including the removal and final disposal of slimes from the Alegria Sul pit;
- complete the design to adjust the desliming of Concentrator 3 and confirm, on an industrial scale, all the expected potential to reduce slimes generation;
- develop technological routes for the magnetic concentration of slimes and options for its use in products and co-products;
- assess scaled solutions for the use of slimes and sandy tailings in non-steel applications, such as civil construction and paving.





# Social relationships

Mariana (MG)



# Communities and area of influence

GRI 103-2, 103-3 | 203, 103-2, 103-3 | 413, 203-1, 411, 413-1

Samarco interacts with 29 municipalities, from Minas Gerais and Espírito Santo, which are part of our direct area of operation. All of them are comprised by instruments such as the Samarco Relationship Center and by projects supported by the Institutional and Social Investment Policy, which establishes assumptions and guidelines for the allocation of funds. There are also dialogue actions, such as conversation forums and meetings, linked to the socio-environmental requirements of the operating licenses or capital projects. Since 2020, the Monitoring Program for Socio-economic Indicators (PMISE) has been resumed.

We apply institutional and social funds connected to the main challenges of the mining industry, guided by the Company's values, mission and vision of the future, in line with the fundamentals of the global agenda, portrayed in the United Nations' Sustainable Development Goals - UN. In 2021, BRL 270,000 was voluntarily allocated to initiatives, in addition to BRL 1,062,312 in donations related to combating the pandemic and an additional BRL 2,334,383.92 in social works in the communities of Espírito Santo.

Our Institutional and Social Investment Policy has as its guiding principles the provision of citizenship and human rights, independence from any political-party or religious affiliation, valuing diversity and repudiating any form of discrimination (race, gender, origin, ethnicity, language, religion, sexual orientation, age, etc.) and violation of human rights.

We also consider the integration of a gender perspective and the inclusion of vulnerable groups, the option for social dialogue, intersectoriality, collective interest and participatory planning and decision-making processes, through continuous involvement with stakeholders and local partners aiming at the consensus and overcoming potential conflicts, including transparency in the application of funds.

We use a Stakeholder Intelligence System to monitor and deepen critical issues for the Company. The System allows collecting news related to the customized thematic radar, mapping institutional stakeholders, people and groups/movements, recording agendas and relationship and dialogue contacts made, monitoring issues of interest in projects and building relationship maps.

We periodically developed surveys and diagnoses in the territories of influence. Dialogue with communities is part of the interaction strategy with local leaders, in addition to the execution of the Socio-Economic Indicators Monitoring Program (PMISE) and specific diagnoses. These contents are systematically discussed in the internal Governance forums, with the presence of both shareholders, as in the Subcommittee on Communication and Stakeholder Management. Monitoring is mainly carried out by the Licensing sector and by environmental agencies, and the execution of the programs is linked to the area's performance goals and to the Company's Profit Sharing.

We also measure Programs and complaints related to programs performed in communities through the Company's communication channel: Fale Conosco (Ombudsman), widely publicized in Samarco's actions and newsletters.

All social dialogue forums were rebuilt in 2021. Samarco returned to position itself and to be more actively present in communities and institutions, with relationships guided by an understanding of needs – as seen in the investments of the period, focusing on the demands and urgencies of each context (see more below).

100% of operations have social and environmental impact assessment



mechanisms, public disclosures of our performance, stakeholder engagement plans, councils and formal complaints and grievance processes by local communities. We have 50% of operations with development programs based on the needs of local communities, as well as councils, commissions and other employee representative agencies to discuss impacts. We do not maintain committees or processes for broad consultation with the local community, including vulnerable groups.

Among the outstanding social programs active in 2021 are: GRI 412-1

- Institutional and Social Investment Policy (PIIS)
- Monitoring Program for Socioeconomic Indicators (PMISE)
- External Environmental Education Program and Support Program for Fishermen Communities
- Support Plan for Economic Diversification (PADE)
- Samarco Environmental License Monitoring Forum (FALAS)
- Communication and Socio-Institutional Relationship Program
- Rural Producers Training Program
- Local Strength Supplier Development Program (read more in Value Chain)



## MARKET IMPACT

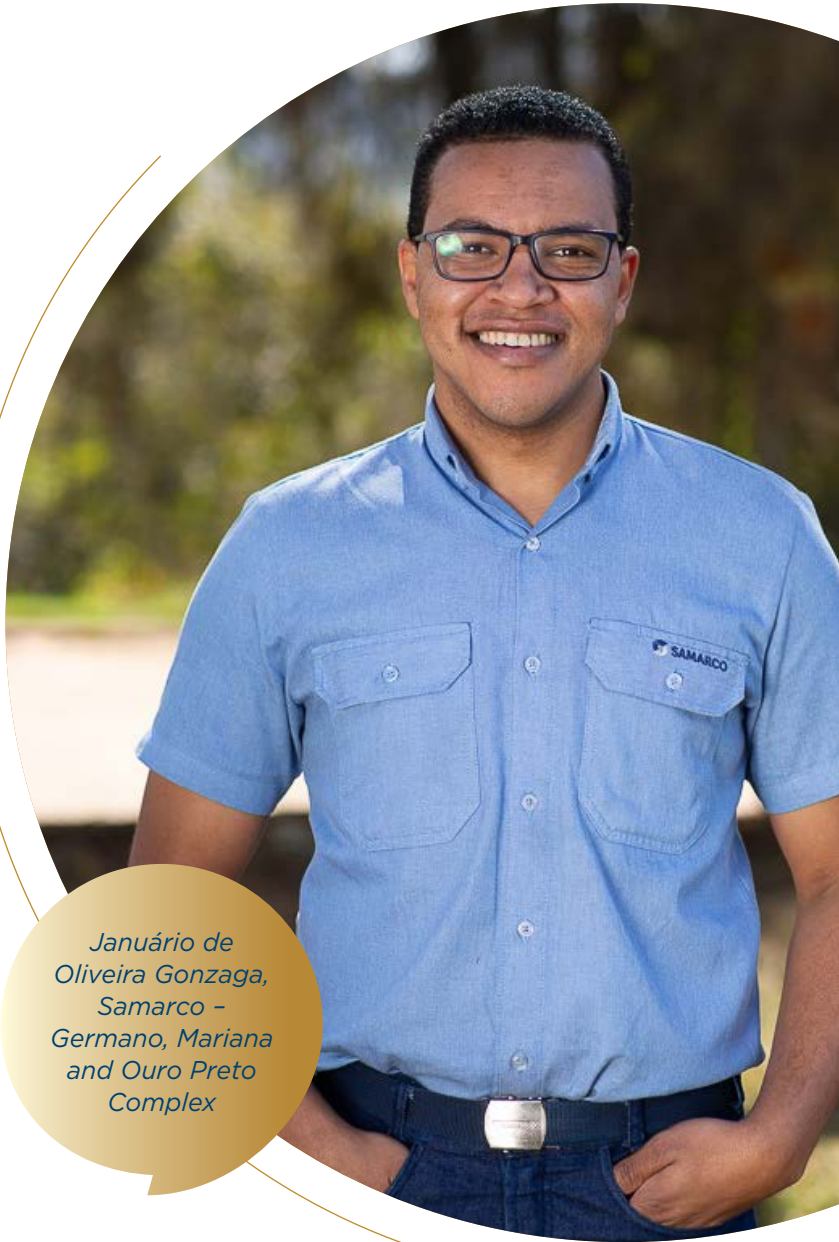
GRI 103-2, 103-3 | 202

Our dedication to local workers in the hiring process is a historic commitment and, in recent years, has added to other goals in our interaction with communities. An example is the encouragement to hire professionals representing minority groups (Race, LGBTi+, Gender Equity and People with Special Needs). For all job positions, recruitment and selection consultancies face the challenge of mapping and prioritizing this audience, as long as they meet the requirements demanded by the job.

The context of the resumption of operations gave us opportunities to hire labor and, in addition, to encourage transformative actions that include training and fostering the prioritization of local professionals for the Company and/or for structuring projects.

We intensify training in local communities, contributing to the development and employability of the local audience. We trained 140 professionals in the regions of Germano, Ubu and Candonga.

Training courses are provided through partnerships with local educational institutions. Among the training sessions developed in 2021, we highlight the reinforcement of our *Porta de Entrada* (Front Door) programs, with the purpose of selecting and developing students and/or recent graduates who can occupy important positions in the organization. Considering the apprenticeship, internship and trainee programs, we hired 171 young people to join the Samarco staff.



Januário de  
 Oliveira Gonzaga,  
 Samarco -  
 Germano, Mariana  
 and Ouro Preto  
 Complex

Within the scope of the Porta de Entrada Program, of the 164 admissions made in the year, 132 were from local communities, equivalent to 80%. Of the 90 permanent job positions, 54% came from nearby communities and 24% were filled by former employees. An important piece of data that we started to measure in the selection processes of the organization as a whole is the diversity in hiring. Of the 254 admissions, 48% are job positions occupied by diversity profiles.



## OUTSTANDING INVESTMENTS AND ACTIONS

GRI 203-1



National Sanctuary of São José de Anchieta (ES)

### Facing the Covid-19 pandemic

Samarco voluntarily allocated BRL 1,062,312 to the municipalities neighboring its operations in the Germano (Mariana, Ouro Preto and Catas Altas) and Ubu (Anchieta, Guarapari and Piúma) Complexes for the acquisition of material for the general population (alcohol gel, masks, others), personal protective equipment and material for health professionals, and hospital material and equipment used to prevent and combat the coronavirus pandemic.

### Strengthening spaces for sociability

Samarco allocated BRL 615 thousand to meet the demand of the local community to encourage coexistence, sociability and leisure in Chapada do A, in Anchieta (ES). This was an action required in the licensing process (Requirement 53 of the Ubu Plant) and the decisions for its execution were also carried out with the participation of the community.

### Strengthening of a children's educational institution

Samarco allocated BRL 1,719,383.92 to meet the demands of the local community to strengthen early childhood education in Porto Grande, in Guarapari (ES). This was an action required in the licensing process (Requirement 53 of the Ubu Power Plant) and both its definition and design detail were done with the help of the community.

### Maintenance of children's educational institution

Samarco voluntarily donated BRL 200 thousand to the Padre Ângelo Promotional Center, in the community of Antônio Pereira - Ouro Preto (MG).

### Water supply

Samarco voluntarily donated BRL 70,000 to the Municipality of Mariana, which experienced a water crisis during 2021.

KEEPING AN EYE  
ON THE IMPACTS

GRI 413-2

Through management mechanisms, investments and social dialogue policies, we have matured our understanding of the real and potential negative impacts of our operations. Check out a list of them below:

We monitor the impacts and externalities of our operations in the different socio-environmental aspects

Operation location	Impact Location	Actual and potential material adverse impacts of operations		Intensity or severity of impacts	Likely duration of impacts	Reversibility of impacts	Scale of impacts
Germano	Mariana, Ouro Preto, Catas Altas	Actual impacts	<ul style="list-style-type: none"> <li>• Increase in Road Traffic</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	Continuous, with greater severity during peaks of construction works (for example De-characterization)	Average	High
		Potential impacts	<ul style="list-style-type: none"> <li>• Increase in the number of traffic accidents</li> <li>• Increased noise pollution</li> <li>• Increase in the rate of deterioration of roads and highways</li> <li>• Increased travel time</li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> <li>• Average</li> <li>• High</li> <li>• High</li> </ul>	Continuous, with greater severity during peaks of construction works (for example De-characterization)	Average	Medium
Germano and Ubu	Mariana, Ouro Preto (MG)	Actual impacts	<ul style="list-style-type: none"> <li>• Labor migration</li> </ul>	<ul style="list-style-type: none"> <li>• Average</li> </ul>	During construction and expansion works	Average	Low
		Potential impacts	<ul style="list-style-type: none"> <li>• Local way of life transformations</li> <li>• Real estate speculation</li> <li>• Increase in irregular housing</li> <li>• Increased cost of living</li> <li>• Overburden in the provision of public services (safety, education, health, transport, sanitation...)</li> <li>• Increased activity of prostitution, child sexual abuse and exploitation, unwanted pregnancies, cases of sexually transmitted diseases (STDs), and risk related to drug and alcohol consumption</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> <li>• Baixa</li> <li>• Baixa</li> <li>• Baixa</li> <li>• Medium</li> <li>• Average</li> </ul>	During implantation and expansion works, with greater severity during peaks of construction works - Germano focus (for example, De-characterization)	Average	Low
Germano and Ubu	Mariana, Ouro Preto (MG)	Actual impacts	<ul style="list-style-type: none"> <li>• Construction work</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	During construction and expansion works	Average	High
		Potential impacts	<ul style="list-style-type: none"> <li>• Interruption of public roads</li> <li>• Increase in residual materials on public roads</li> <li>• Possible drop in commercial activity in areas with intense vehicle circulation</li> <li>• Damage to public property</li> <li>• Increase in particulates and dust on roads and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• High</li> <li>• High</li> <li>• Low</li> <li>• Average</li> <li>• High</li> </ul>	During implantation and expansion works, with greater severity during peaks of construction works - Germano focus (for example, De-characterization)	High	Medium
Pipeline Right of Way	Municipalities and Communities crossed by the pipeline	Actual impacts	<ul style="list-style-type: none"> <li>• Work constructions</li> </ul>	<ul style="list-style-type: none"> <li>• Average</li> </ul>	During maintenance works	High	High
		Potential impacts	<ul style="list-style-type: none"> <li>• Interruption of public roads</li> <li>• Increase in residual materials on public roads</li> <li>• Possible drop in commercial activity in areas with intense vehicle circulation</li> <li>• Damage to public property</li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> <li>• Low</li> <li>• Low</li> <li>• Low</li> </ul>	During maintenance works	High	Low



*Filtration Plant Building, Ubu Complex – Anchieta (ES)*



## Value chain

**GRI 102-9, 103-2, 103-3 | 204, 103-2, 103-3 | 408, 103-2, 103-3 | 409, 103-2, 103-3 | 414, 204-1, 408-1, 409-1, 414-1**

Due to the nature of our business and presence in local communities, we have a significant responsibility for generating employment, income and socioeconomic development in the locations where we operate based on the supply chain. At the end of 2021, we had 1,504 business partners, considering those we maintain on active contracts, and we allocated BRL 2.214 billion to payments to suppliers of services, material, inputs and energy.

In addition to the potential socioeconomic benefits, we also consider human rights issues in our management – a potential risk inherent in managing complex value chains, but also an opportunity to spread good practices and commitments among our partners.

In 2021, we had a positive institutional interaction and beyond what was planned with institutions and communities. This was an important incentive for us to work on the maturation of impact assessment and contracting actions based on ESG agenda criteria, as well as on the development of partners.

In December 2021, we launched the Supplier Performance Assessment, with criteria related to technical performance, health, safety, environment, financial and labor health and social security management. We are in the process of developing the Social and Business Responsibility form for application and scoring of all evaluated suppliers, including social criteria.

Monitoring will take place through quarterly reports for monitoring and dealing with those involved in the supplier evaluation. The collection of supplier information through this form is expected to begin in the second half of 2022.

During the year, no operations and suppliers were identified with a significant risk of cases of child, forced or compulsory labor.

# FORÇA LOCAL (LOCAL LABOR): YEAR OF GROWTH

The Força Local Program represents the type of relationship we aim at building in Samarco's new journey. This is an initiative focused on the development and strengthening of our supply chain, for better training, updating, assimilation of guidelines and management of topics related to the business by partners.

The Força Local Program was implemented in October 2020, covering the municipalities: Ouro Preto, Mariana, Catas Altas and Santa Bárbara (MG); and Guarapari, Anchieta and Piúma (ES).

With Força Local, we foster new businesses and impact the regions in a positive manner, stimulating socioeconomic growth. Thus, these projects are better able to meet possible demands from Samarco and other companies for services, material, equipment and inputs.

## The 5 pillars of Força Local

- The **“Policies”** pillar establishes ways to increase the hiring of labor, the acquisition of goods, inputs, services, material and equipment in local commerce.
- The **“Trainig”** pillar holds lectures, seminars and training on topics related to business management and technical training of the workforce.
- The **“Business”** pillar includes initiatives such as the Local Supplier Day, Business Meetings, and the publication of the Electronic Catalog of Local Suppliers.
- The **“Development and Qualification of Suppliers”** cpillar contributes to the improvement of business management processes and the development of a culture of management by results and continuous improvement.
- The **“Monitoring”** pillar, on the other hand, monitors the actions and demands brought by local suppliers, through periodic meetings with class entities and monitors the results with indicators.

## Program numbers in 2021

- 30 workshops, Lectures and Seminars
- 316 companies in the Catalog of Local Suppliers in MG and ES
- 164 assistances in the 1st Round of Business
- 62 companies certified in the Development and Qualification Pillar
- 06 labor training courses

The indicators of the Força Local Program are monitored monthly by the Procurement Governance. The contract also establishes that contractors must report monthly disbursements made in the municipalities where the Company operates.

We have the “Local Supplier Communication Channel” - [programaforcalocal@samarco.com](mailto:programaforcalocal@samarco.com), for doubts and suggestions. Moreover, the Local Supplier Day was created, taking place in Espírito Santo every first Tuesday of the month and in Minas Gerais every first Wednesday of the month.

Purchase documents issued	2020	2021
Total contracted value (BRL)	BRL 1,831,238,991.00	BRL 2,214,222,862.26
Total value contracted with local suppliers (BRL)	BRL 270,989,112.00	BRL 605,211,716.92
% of the total amount contracted with local suppliers	14.80%	27.33%

The actions implemented in 2021 for the development of local suppliers contributed to the increase in the purchase rate in the regions where Samarco operates.



Business Model Workshop applied to Canvas for suppliers in Espírito Santo





Aquatic Fauna  
 Monitoring Program  
 - sea turtles in the  
 area near the port  
 of Ubu

# Environment



# Our management model

GRI 103-2, 103-3 | 307, 307-1

Environment is one of the pillars of Samarco’s sustainability statement. We understand that this is an opportunity to put into practice our purpose of carrying out a different and sustainable mining, proactively working on risk management, impact control and the search for opportunities to encourage environmental excellence throughout the production chain.

Our desire to contribute to sustainable development is based on the conscious and planned use of environmental goods and services, mindful of the limits and regeneration capacity of nature. We intend to always evolve, learning from the challenges and joining efforts in the search for a balance between the interests of the business and the current needs of society and future generations.

We are engaged in mitigating and compensating for negative impacts, promoting the benefits of our activities and caring for human relations through continuous dialogue with the players in our value chain.

The context of the resumption mobilized more than BRL 18.3 million in environmental investments, including technologies for atmospheric control

in Ubu, processes and technologies and environmental actions – such as the rehabilitation of the Risoleta Neves Hydropower Plant (Candongá), which involves the Environment area of the Company.

In 2021, Samarco maintained all its licenses active and met the environmental requirements within the deadlines established by the environmental agency. Among the main projects developed is Samarco’s Center for Environmental, Social and Forestry Development (Cedasf), which produces seedlings of native trees to be used in environmental offset projects, with a capacity of approximately 200,000 seedlings per year. The center will also host activities focused on environmental education.

We monitor environmental compliance through various risk mitigation and management tools, in addition to having plans for all environmental incidents and for monitoring compliance with all environmental requirements, including monthly audits by a company contracted by the Public Prosecution Office, in the case of the Germano complex. In Ubu, there are also legal audits and training actions. The year had environmental fines mostly related to old Samarco licenses, which were canceled in 2015 due to the Fundão dam collapse. The fines paid in the year were, in the case of the most relevant amount (AI 4803/2015, in the amount of BRL 46.4 million), related to payments in installments to SEMAD and settlement of the remaining debt. There were no non-monetary sanctions or cases resolved through arbitration mechanisms.



Diogo Cesar Vilela at the forest nursery of Samarco Environmental, Social and Forestry Development Center (MG)

We invested more than BRL 18.3 million in environmental aspects in the context of the resumption

Environmental fines	2019	2020	2021
Fines paid during the collection period	BRL 27,145,839.80	BRL 30,601,506.77	BRL 46,458,523
Fines received during the collection period	BRL 4,043,263.4	BRL 333,903,428.19	BRL 486,144.07



## 2021 HIGHLIGHTS

### Water Management

A topic that has improved daily through the use of new environmental practices. Currently, Samarco is able to recirculate around 88.4% of all the water used in its process. One gain to be highlighted in the year was the implementation of water monitoring by the Integrated Operation Center (IOC), with monitoring of the quality of water bodies 24 hours a day, 7 days a week.

### Atmospheric Management

We have six air quality monitoring stations at Ubu, since before the shutdown, and the milestone of 2021 was the installation of the Automatic Particle Monitoring Network (RAMP) in nine points at the Germano dam.

### Noise and Vibration Management

Monthly noise monitoring is currently carried out in 12 communities.

### Biodiversity Management

Samarco actively works in the environmental offset of its activities and around 12 thousand ha of native vegetation have already been protected, equivalent to 3.6 times the total area from the company. Between 2021 and 2022, it is planned to plant another 663 ha.

### Canine Vaccination Program

In 2021, 46 campaigns were carried out in 39 municipalities in Minas Gerais, reaching around 43 thousand dogs.

### Environmental Project Management

Daily environmental inspections are carried out in all projects under development at Samarco, with the help of the digital tool (*Checklist Fácil*).

## Climate changes

GRI 103-2, 103-3 | 305

One of the most relevant topics in our entire production chain, from mining activities to the steel industry we serve, is the climate agenda. We are committed to addressing the issue in our impact control actions, developing resilience in the face of climate change and studying alternatives to mitigate risks and review processes.

We understand the relevance of the effects of climate change for our business, the country and the planet. In 2021, the electricity used came from hydroelectric plants, with part being self-generated and part bought by option to purchase from a traceable source. Due to this, the indirect emissions of greenhouse gases related to the acquisition of energy were reduced to zero.

The monitoring of emissions is carried out through specific controls aimed at significant sources, following legal precepts. The assessment is done by comparing the legal limits for sources that have limits. The results of monitoring and inventory updates are periodically submitted to licensing agencies.

With the operational resumption, 2021 was used as a reference year for the indicator, on the internal axis - there is no comparison with the 2019 and 2020, in a shutdown context, nor with the pre-collapse period, as the Company operates today at 26% of its original capacity.

There is no regulation for total greenhouse gas emissions in general. Samarco observes the principle of its Operating License, which requires continuous improvement of emissions control in general and is also developing a plan to establish goals for the decarbonization of its production process.

### Environmental Education Program

Throughout the year, we published more than 90 Environmental Dialogues (DMA) on a variety of environmental topics; Capabilities; Introductory Training; in addition to the environmental campaigns (4 actions) that throughout the year mobilized around 5,000 people.

### Environmental Performance Index (IPIA)

The indicator was implemented in January 2021 to measure the environmental performance of operational management in terms of meeting requirements.

Panel of indicators: emissions (em tCO<sub>2</sub>e)

Direct greenhouse gas emissions <sup>1 2</sup> GRI 305-1	2019	2020	2021
Generation of electricity, heat or steam	5.58	284.57	5,327.04
Physicochemical Processing	0	6,345.79	631,664.67
Transport of materials, products, waste, employees and passengers	20,839.68	20,145.88	54,986.74
Fugitive Emissions <sup>3</sup>	99.21	3,100.53	1,675.93
Changes in the use of soil	-	-	55.57
Waste	-	-	1,748.00
<b>Total gross CO<sub>2</sub> emissions</b>	<b>20,944.47</b>	<b>46,303.38</b>	<b>695,457.95</b>
Biogenic CO <sub>2</sub> Emissions <sup>1</sup>	2,209.30	2,380.59	5,281.99

<sup>1</sup> The Calculation Tool of the Brazilian GHG Protocol Program was used, base year 2021. The operational control approach was chosen, with the Company being divided into its sites at Germano, Matipó, Ubu and Muniz Freire, that is, four sites between the two Germano and Ubu units.

<sup>2</sup> The calculations above consider the gases carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), as well as the gases SO<sub>2</sub>, CO and VOC (Volatile Organic Compounds).

Indirect emissions from the acquisition of energy <sup>1</sup> GRI 305-2	2019	2020	2021
	6,010.42	6,429.50	0

Other greenhouse gas emissions <sup>1 3</sup> GRI 305-3	2019	2020	2021
<b>Upstream and downstream</b>			
Transport and distribution (outsourced fleet)	0	0	21,558.56
Waste generated in operations <sup>4</sup>	3,597.22	32.29	2,442.82
Business trips	69.52	88.55	8.09
Employee transportation	1,809.24	2,585.52	4,600.64
<b>Downstream</b>			
Transport and distribution (products sold by the organization)	0	52,917.79	314,775.42
<b>Total</b>	<b>5,475.98</b>	<b>55,624.16</b>	<b>343,385.53</b>
Biogenic CO <sub>2</sub> emissions (t CO <sub>2</sub> equivalent)	209.26	458.32	2,627.39

<sup>1</sup> The Calculation Tool of the Brazilian GHG Protocol Program (base-year 2020) was used. The operational control approach was chosen, with the company being divided into its sites at Germano, Matipó, Ubu and Muniz Freire, that is, four sites between the two Germano and Ubu units.

<sup>2</sup> In 2021, Samarco had 100% of its electricity traced from renewable sources (hydroelectric), both by self-generation (Guilman Amarin and Muniz Freire hydroelectric plants) and by option to purchase (substantiated by RECs).

<sup>3</sup> The calculations consider the gases carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), and methane (CH<sub>4</sub>).

<sup>4</sup> Considered solid waste sent for disposal by third parties.

Intensity of GHG emissions GRI 305-1, 305-2, 305-3, 305-4	2019	2020	2021
Total GHG emissions (t CO <sub>2</sub> equivalent)	32,430.87	108,357.03	1,038,843.48
Intensity of emissions (t CO <sub>2</sub> e/employees)	27.98	74.27	698.15

Also for 2021, as production took place throughout the year, it is possible to present the intensity of emissions by production, as shown below:

Intensity of GHG emissions broken down by scope (*)	Scope 1	Scope 2	Scope 3
Absolute Emissions (t CO <sub>2</sub> e)	695,457.95	0	343,385.53
Specific Emission (kgCO <sub>2</sub> e/ton pellet produced)	90.17	0	44.52

(\*) considers emissions up to the customer's port.

ATMOSPHERIC EMISSIONS

The Company is subject to emission concentration limits from fixed sources for particulate matter and SO<sub>2</sub> and NO<sub>2</sub> gases. Check out our indicators for the last three years

Significant air emissions (tons) <sup>1 2</sup> GRI 305-7	2019	2020	2021
NOx <sup>4</sup>	1,266.74	515.33	1,620.53
SOx <sup>4</sup>	1.83	1,012.50	2,216.62
Persistent Organic Pollutants (POP)	0	0	0
Volatile Organic Compounds (VOC)	140.91	123.91	42.75 t
Hazardous Air Pollutants (HAP)	0	0	0
Particulate matter (PM) <sup>3,4</sup>	2,711.99	1,359.20	10,394.90

<sup>1</sup> Data source: European Environmental Agency. Storage, handling and transport of mineral products. EMEP/EEA air pollutant emission inventory guidebook, 2016. Samarco's licensing conditions require the Company to use the US EPA methodology for calculating air emissions, which is also used to calculate Scope 1 of the greenhouse gas inventory, in accordance with the GHG Protocol. Standards and methodologies adopted: MRI, Midwest Research Institute. Particulate Emission Measurements from Controlled Construction Activities, EPA/600/R-01/031. 2001

<sup>2</sup> There are no other standard categories of air emissions identified in regulations.

<sup>3</sup> Total particulate matter (MPT).

<sup>4</sup> These emissions are regulated in an environmental license due to their impact on air pollution and are not Greenhouse Gases.



# Use of natural resources

GRI 103-2, 103-3 | 303, 303-1, 303-2

The consumption of water and energy inherent to the Company's processes motivates a series of actions aimed at reducing consumption, increasing reuse and seeking operational alternatives to act with the least possible environmental impact.

In the water pillar, we maintain the Water Resources Management Plan, which includes monitoring the quality of Surface Water, Groundwater and Liquid Effluents. We have resource grants to supply our units, based on feasibility studies and authorized by the government.

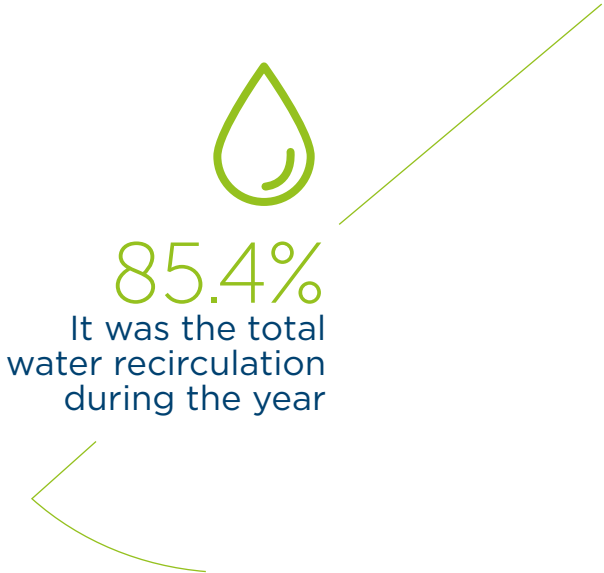
A historic assumption of Samarco is to always work prioritizing the reuse of the resource, which is possible in its production model with ore pipelines and, more recently, through the Sandy Tailings Filtration System, which enables the recirculation of up to 80% of the water.

In 2021, operations reached a recirculation percentage of 85.4%.

We also continuously monitor the disposal of water resulting from the generation of wastewaters. We have specific stations to treat sewage, industrial and oily effluents and oil. All receiving bodies and groundwater in our operation are monitored to check quality and Samarco interference. Studies support any decision to structure new collection points.

Samarco adopts the standards set by CONAMA Resolution No. 357/2005, Joint Normative Resolution COPAM/CERH-MG No. 01 of 2008) for Class I (Piracicaba River) and Class II (Macacos Stream) water courses, João Manoel Stream, Santarém Stream, and Gualaxo do Norte River), in addition to requirements established for the discharge of domestic and oily effluents under Resolution No. 430/2011.

In 2021, domestic effluent treatment systems reduced the concentration of monitored parameters in most samples in Germano. At Ubu, the industrial effluent treatment system achieved more than 99% compliance with the parameters.



## Total volume of water abstracted per source (ML) GRI 303-3

Source	2019		2020		2021	
	Germano	Ubu	Germano	Ubu	Germano	Ubu
Surface water (Total)	1,881.18	6,514.36	158.29	1,324.99	2,726.19	993.18
Groundwater (Total)	3,873.74	51.23	3,888.28	61.53	7,290.94	53.64
Total	5,754.92	6,565.59	4,046.57	1,386.52	10,017.23	1,046.82

<sup>1</sup> There was no collection and storage of rainwater, effluents from other organizations, and consumption by municipal supply and/or other supply companies.

Items related to areas with water stress, marine waters, produced waters and third-party waters do not apply to Samarco's Units, as we are not in water stress areas (DACs) and these waters are not collected.

Germano and Matipó: The groundwater and surface water flow data is obtained by automated flow measurement systems in which the data is stored in systems called PIMs and in the MES where the data is analyzed.

Ubu: Groundwater data is obtained through manual hydrometer reading, performed by the system operator and made available through spreadsheets for the environment team. The surface water data is obtained through an automated meter installed in the pipeline, which feeds the PIMS system, where they are stored.

## Total water discharge in all areas and areas with stress, broken down by the following sources, if applicable (ML) GRI 303-4

Type of source	2019	2020	2021
Surface water	8,868.22	1,510.08	4,270
Groundwater	0	0	0
Total	8,868.22	1,510.08	4,270

## Total volume of water consumed (ML) GRI 303-5

	2019		2020		2021	
	Germano	Ubu	Germano	Ubu	Germano	Ubu
	6,625.49	0	4,046.57	0	8,967.25	0

# Energy Efficiency

GRI 103-2, 103-3 | 302, 302-1, 302-3, 302-4

In connection with our climate strategy, we seek to improve Samarco's energy performance – both through control and efficiency actions and through the transition to clean and/or renewable sources.

Samarco's energy consumption is monitored by a specific system. Samarco owns hydroelectric plants that meet all the requirements of regulatory bodies, governments and institutions. As they are hydropower plants, the energy generated is from a 100% renewable source. In addition to its self-generation, Samarco complements its electricity consumption by purchasing energy from CEMIG for all its consumer units within the Electric Energy Free Market. This purchased energy also comes from 100% renewable sources, as attested by CEMIG through the Renewable Energy Certificate (REC). Thus, in 2021, the energy consumed by Samarco came 100% from renewable sources. We aim

at guaranteeing the reliability of the supply systems and the high level of safety in all the Company's structures..

We maintain several initiatives to reduce energy consumption. In 2021, in Germano, we had a decrease in electricity that exceeded the target by more than 5%, considering the global target of a 3% reduction with regard to the amount budgeted for the year (in kWh/tms). This was the result of improvements in the grinding process, such as the adjustment of the ball load in the mills, adjustments in the configuration of the classification equipment, changes in the process aimed at optimizing the performance of each grinding stage and standardization of equipment downtime practices to energy rationalization, among others. At Ubu, the reduction in electricity consumption was related to improvements in filtration and process fans in the plant's furnace.

Total energy consumption within the organization (GJ)	2020	2021
Fuels from non-renewable sources	368,356.46	674,065.84
Fuels from renewable sources	42,500.64	0
Electricity consumed	341,676.17	2,700,411.34*
Electricity sold	750,988.80	0
<b>Total energy consumption = (A+B+C) - D</b>	<b>1,544.47</b>	<b>3,374,477.17</b>

\*This value is equivalent to 750,114.26 MWh.

Energy consumption reductions achieved as a result of improvements in conservation and efficiency (GJ)*	2021
<b>Ubu</b>	
Oven Process Fans	103,938.13
Filtration vacuum pumps	9,234.17
<b>Total</b>	<b>113,172.30</b>
<b>Germano</b>	
Concentrator Grinding 3	133,388.64
Tailings filtration	12,324.43
<b>Total</b>	<b>145,713.07</b>
<b>Total (Ubu + Germano)</b>	<b>258,885.37</b>

\*The DMAIC methodology was used.



# Waste and by-products

GRI 103-2, 103-3 | 306, 306-1, 306-2

We are attentive to opportunities to minimize the generation of waste and to reuse with economic interest by-products resulting from the processes of extraction and processing of iron ore.

We resumed operation on December 11, 2020 under a new operating model, aimed at the minimum possible generation of tailings and overburden with the production process. To this end, in addition to the levels of 26% of production capacity, we have the Alegria Sul Pit Tailings Disposal System and the Sandy Tailings Filtration System as innovations to provide more efficient, safer and more responsible disposal of material.

Our risk management and our investments in research and innovation are oriented to address the discussion about the destination of overburden, tailings and slimes without using upstream dams. In 2021, the resumption

of operations significantly impacted the volume of tailings generated, as well as waste and slimes, as expected – however, the new operating systems allow results such as dry stacking of waste and the disposal of tailings still generated in a high stability pit.

We manage by-product deposit and waste disposal based on our new operating model

Samarco's total quantities of ore (t) GRI MM3	2020	2021	2022
Overburden	5,954,263.00	3,283,703.64	7,564,923
Tailings	0.00	136,279.00	5,896,404
Slimes	0.00	37,884.00	1,497,989
Ore*	4,649,447	-	-

\*Data reported in 2019 and 2020 due to the movement related to in the preparation of Alegria Sul Pit.

# WASTE MANAGEMENT

The Company maintains internal guidelines related to the Corporate Waste Management Plan (PCGRS) and environmental legislation. Environmental Dialogues are held with employees, in which topics related to the correct segregation and disposal of waste are addressed.

At the Ubu and Germano units, we have waste sorting and temporary storage centers, the Discarded Material Center (CMD), pursuant to applicable legislation, with small bins and buckets to store the waste according to typology and volume. The waste is stored in the CMDs until its disposal, whether for recycling or landfill, always with licensed companies.

Waste management is carried out by a contractor that observes the internal guidelines related to the Corporate Waste Management Plan. The contractor undergoes periodic environmental inspections by the environmental area.

Total waste generated, per composition (t) GRI 306-3		2019		2020		2021
Category	Type (hazardous or non-hazardous) (additional information)	Quantity generated (t)	Type (hazardous or non-hazardous) (additional information)	Quantity generated (t)	Type (hazardous or non-hazardous) (additional information)	Quantity generated (t)
Class I Waste - Germano	Hazardous	248.57	Hazardous	308.32	Hazardous	470.29
Class II Waste - Germano	non-hazardous	31,801.18	non-Hazardous	5,460.48	non-Hazardous	5,492.57
Class I Waste - Ubu*	Hazardous	193.07	Hazardous	234.61	Hazardous	152.84
Class II Waste - Ubu*	non-hazardous	3,527.22	non-Hazardous	4,753.66	non-Hazardous	2,965.67
Total		35,770.04		10,757.07		9,081.37

The amount of class I and class II waste generated in Ubu reduced in 2021 in relation to 2020.

Waste not intended for final disposal (t) GRI 306-4	2021
Composition	Quantity not destined
Class I waste - Germano	8.61
Class II waste - Germano	109.58
Class I waste - Ubu	23.94
Class II waste - Ubu	62.25
<b>Total</b>	<b>204.38</b>

Total waste not destined for final disposal, per recovery operation, in metric tons (t)	Outside the organization/Offsite
Non-hazardous - Recycling	162.58
Dangerous - Recycling	32.40
<b>Total</b>	<b>194.98</b>

Data was included in the report as of 2021.

Waste destined for final disposal (t) GRI 306-5	2019	2020	2021
Composition			
Waste sent to landfill - Germano	26,840.62	1,897.27	2,920.02
Waste sent to recycling - Germano	2,715.46	3,992.49	3,291.63
Waste sent to landfill - Ubu*	90.64	747.76	403.38
Waste sent to recycling - Ubu*	28.27	4,149.20	3,349.27
<b>Total</b>	<b>29,674.99</b>	<b>10,284.42</b>	<b>10,022.89</b>

Waste allocated to final disposal, per operation, in metric tons (t)*	2019	2020	2021
Non-hazardous waste	Outside the organization/ Offsite	Outside the organization/ Offsite	Outside the organization/ Offsite
Incineration with energy recovery	0.43	0	0
Incineration without energy recovery	0	0	0
Landfill	26,840.46	2,142.73	3,318.04
Other disposal operations	2,363.60	8,141.69	6,342.97
<b>Total</b>	<b>29,204.49</b>	<b>10,284.42</b>	<b>9,661.01</b>
Hazardous waste	Outside the organization/ Offsite	Outside the organization/ Offsite	Outside the organization/ Offsite
Incineration with energy recovery	90.01	224.91	0
Incineration without energy recovery	0.01	0,68	0
Landfill	0	0	15.47
Other disposal operations	128,82	151.89	607.63
<b>Total</b>	<b>218.84</b>	<b>377.48</b>	<b>623.59</b>
<b>Total waste allocated to final disposal</b>	<b>29,423.33</b>	<b>10,662.10</b>	<b>10,284.60</b>

\*There is no destination of waste for final disposal per operation within the organization/onsite.

Companies operating in the disposal chain follow our Corporate Management Plan and undergo environmental assessments



*Leopardus pardalis*  
(Ocelot) - Fauna  
Monitoring  
Program, in the  
Germano Complex  
(Mariana).



## Biodiversity

GRI 103-2, 103-3 | 304, 304-1, 304-2, MM2

We assume the commitment and work so that our activity has the least possible influence on territories neighboring our operations. We systematically monitor fauna, flora and preserved or conservation areas in our vicinity.

We are currently evaluating our impacts on biodiversity and designing action plans for both the Germano and Ubu units. We have an environment of high biodiversity in both locations, and we seek to protect it through risk control measures.

In 2021, we continued with the quarterly Fauna Monitoring campaigns and the Fauna Management Program, with the monitoring of populations throughout the monitoring campaigns. We perform campaigns and lectures within the scope of the Environmental Education Program. We carried out activities related to Fauna Management at the Germano Complex; the expansion of the study to amphibians registered and categorized as of scientific interest; and the publication of new data for the region studied.

Check out the main actions carried out in 2021:

### Terrestrial Fauna and Aquatic Biota Monitoring Program

Carried out in Germano, includes quarterly campaigns to complement the local fauna inventory, characterization of local communities, estimation and monitoring of local diversity, richness and abundance; assessment of the operation's impacts on terrestrial fauna over time; assessment of the occupancy rate of *Puma concolor* (puma), a specific monitoring study of *Hydromedusa maximiliana* (threatened with extinction) in the area surrounding the project and monitoring of Endangered, Endemic and Rare Species. With the advance of the years of monitoring, an increase in the richness and abundance of species has been observed, making this study one of the richest in the entire region.

The lack of similarity in relation to the number of campaigns carried out during the phase of operation of the Germano Complex makes it impossible to compare the impacts on fauna communities. It is expected that, with the performance of additional campaigns, during the operation phase, it will be possible to assess the existence and magnitude of such impacts for all monitored fauna groups. Thus, it is essential to continue monitoring terrestrial fauna and aquatic biota, in order to assess whether the resumption of operation of the unit will have an adverse impact on terrestrial fauna and aquatic biota, thus favoring the proposal of mitigating measures, capable of minimizing or mitigating such effects on fauna.



### Aquatic Fauna Monitoring Program

Covers quarterly campaigns and monitoring of marine aquatic microorganism populations; daily monitoring of sea turtles in the Ubu port area; and monitoring of fish fauna in the Pardo river (municipality of Muniz Freire).

### Fauna Management Program - Germano

The Fauna Management of the Germano Complex has lines of action aimed, as a priority, at minimizing impacts on the fauna present therein, including those threatened, due to the increase in vehicle and machinery traffic in maintenance activities of assets, projects, among others. This additional traffic has low potential to affect species with low locomotion (such as amphibians and snakes) and/or those with greater mobility capabilities (such as jaguar, ocelot, maned wolf), but which can be run over, even though not frequently. This program applies to the entire Germano Complex, providing for: a team of specialized biologists and field assistants, trained and qualified for fauna management, equipped with a temporary support base for the fauna, as well as an agreement with a veterinary clinic specialized in wild animals. Moreover, on a complementary basis, training is carried out with employees and contractors.

### Fauna Management Program – Ubu

Also focused on minimizing impacts on local fauna through rescue actions, assistance at a clinic specialized in wild animals, and an agreement with an animal rehabilitation center.

### Subprogram for Expansion of Knowledge on Species of Interest from Amphibian Fauna - Germano Complex

Due to the set of anuran amphibian species categorized as of interest (target species), already registered under the Fauna Monitoring of the Complex, it is understood as necessary to increase their knowledge, including the collection of new occurrence data. Considered as of interest, the set of species categorized as relevant for conservation as they have a status of endangered, endemic to the mountain complexes of Minas Gerais (Serra do Espinhaço, Iron Quadrangle, Serra da Mantiqueira and Serra da Canastra), as they are rare in nature, uncertain taxonomic identity, and little data available in the literature.

The set of proposed actions shall be capable of covering all target species, in order to increase knowledge about them, through a vast bibliographic review, including scientific collections and seasonal field sampling, directed to areas protected by Samarco, as well as Conservation Units adjacent to the Germano Complex.

### Environmental Education Program

Continuous environmental training for social groups in the area of direct influence of the project, workers and contractors; encourage the development of the notion of environmental responsibility, awareness and mobilization of the public to prevent hunting, opportunistic and/or retaliatory slaughter, through workshops, dialogues on the Environment; environmental campaigns, dissemination of folders for environmental awareness-raising in terms of threatened species.

### Forest Compensation and apps Recovery Program

Samarco, within the scope of the LOC, will carry out the recovery of an area of approximately 100 hectares for the effective restoration of vegetation, through planting and enrichment of native species. This is also an effective measure of protection and maintenance of biodiversity.

### Air Quality Monitoring Program

The purpose of this program is to enable the control of particulate matter and flue gas emissions through operating procedures and specific actions, and propose the monitoring of the environmental quality of the atmosphere in the area of direct influence of Germano Complex, which allows monitoring and evaluation of air quality in the areas surrounding the project. It seeks to periodically evaluate air quality based on established legal standards, aiming at protecting the health, well-being of the community, and maintaining air quality in the region, minimizing the emission of particulate matter into the atmosphere, controlling the emission of black smoke from vehicles in circulation, to comply with current environmental legislation and applicable technical standards, among others.

### Plan of Recovery of Degraded Areas - PRAD

This plan aims at submitting proposals for actions for the ecological rehabilitation of degraded areas and landscape restoration of the Germano Complex.

### Search and Prospecting of Species of Interest Program

Prospecting for *Agalinis* sp. and study of germination and propagation. The purpose is to carry out the search and prospection of new *Agalinis* sp. nov. individuals in the areas of direct and indirect influence of the Germano Complex, aiming at establishing its distribution in the area as a whole and also in the area affected by the project. Concurrently, Samarco has developed a study in partnership with UFMG, regarding the study of germination and propagation of the species *in vitro* and *in situ*.

### Program for Follow-up of Vegetation Supression

Vegetable Removal Monitoring Program is based on the need to systematize the vegetation removal process and is based on techniques used in worker safety, in the use of wood, and in minimization of impacts on flora and fauna. Thus, the Vegetal Removal Monitoring Program provides for the monitoring of the proposed activities related to the displacement of fauna, rescue of flora and fauna, and minimizes the risk of accidents of professionals involved in the removal process.

### Flora Rescue Program

The rescue of flora is one of the measures to mitigate the effects of vegetation removal, especially species present in the lists of endangered, rare or endemic species, which must be sent to the nursery and later used in the recovery of degraded areas or for enrichment of natural areas. The general purpose of this program is to rescue plants, aiming at: a) reducing the loss of individuals, through the collection, rescue and maintenance of propagules and individuals; b) expansion of the possibilities of reversing the effects on populations and communities, through transplantation or reintroduction of species. Therefore, it is justified as a necessary program to minimize the loss of individuals from the biota.



Noise and Vibration Level Monitoring Program

The Program aims at maintaining the environmental quality of the region, supporting necessary measures and studies that can determine the procedures for monitoring of noise and vibration levels, and control of generating sources whenever necessary

Operational Plan for Prevention and Fighting of Forest Fire

Samarco has an Internal Fire Fighting Plan, which uses the Company’s procedures and responsibilities, in the search for improvement and reinforcement of prevention, and emergency response preparation. We can list the specific goals of these plans, such as: systematizing forest fire preparation and prevention actions; reduce the risk of fire from burning; optimizing local resources and opportunities; improving the capacity for local organization or articulation; reducing fire detection and response time; decreasing the occurrence of fires and burned area; strengthening inspection capacity; improving firefighting efficiency and control; improving the quality and dissemination of information.

Number of species included on the IUCN Red List and national conservation lists, broken down by level of extinction risk GRI 304-4

	2021
Critically threatened	-
Endangered	1.00
Vulnerable	5.00
Almost endangered	6.00
Of little concern	107.00

Classification

Germano

Geographic location	654424/7766817
Own surface and underground areas, leased or managed by the organization	Own underground area
Posição em relação à área protegida (dentro da área, as suas adjacências ou abrangendo partes da área protegida) ou à área de alto valor de biodiversidade situada fora de áreas protegidas	Encompasses parts of the protected area
Type of operation (office, manufacturing/production, or extractive operation)	Extractive operation
Operating unit size in km²	2.31
Value for biodiversity characterized by the attribute of the protected area or high biodiversity value located outside the protected area (terrestrial, freshwater or marine ecosystem)	Terrestrial
Value for biodiversity characterized according to a protected status listing (such as from the IUCN System of Protected Area Management Categories of Ramsar Convention, from national legislation)	Full

Habitats protected or rehabilitated¹ GRI 304-3	Forest offset properties	Legal Reserves
Size of areas of protected or rehabilitated habitat (hectare)	630 ha	3,100 ha
Location of areas of protected or rehabilitated habitat	Rehabilitated	Protected
Approval of rehabilitation measures was approved by independent external experts	Through rehabilitation projects	Through Legal Reserve relocation agreements
Status of each area based on its condition at the end of the reporting period	In progress	Finished
Standards, methodologies and assumptions adopted.	PTRF	Environmental studies

¹ There are no partnerships with third parties to protect or rehabilitate areas of habitat other than those in which the organization has overseen and implemented rehabilitation or protection measures

# GRI Content Summary

GRI 102-55

## General contents

### GRI 101: FUNDAMENTALS 2016

GRI 101 has no Content

### ORGANIZATIONAL PROFILE

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 102: General contents 2016	102-1 Organization Name	20				
	102-2 Activities, brands, products and services	20				
	102-3 Location of the organization's headquarters	20				
	102-4 Location of operations	20				
	102-5 Nature of ownership and legal form	20				
	102-6 Markets Served	20				
	102-7 Size of the organization	20				
	102-8 Information on employees and other workers	53, 54		8, 10		

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 102: General contents 2016	102-9 Supply Chain	91				
	102-10 Significant changes in the organization and its supply chain	6				
	102-11 Princípio ou abordagem da precaução	68				
	102-12 Precautionary approach or principle	54				
	102-13 External initiatives	77				

### STRATEGY

GRI 102: General contents 2016	102-14 Statement by the most senior executive	12, 13, 14, 15				
	102-15 Main impacts, Risks and opportunities	12, 13, 14, 15, 68				4

### ETHICS AND INTEGRITY

GRI 102: General contents 2016	102-16 Values, principles, standards and codes of behavior	44, 45		16	1, 2, 3, 4, 5, 6, 10	1
	102-17 Mechanisms for ethical guidance and concerns	44, 45		16	1, 2, 3, 4, 5, 6, 10	1



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
<b>GOVERNANCE</b>						
<b>GRI 102: General contents 2016</b>	102-18 Governance structure	42, 43				2
	102-19 Delegation of authority	42, 43				
	102-20 Accountability of executive level positions and functions for economic, environmental and social topics	32, 33, 42, 43				
	102-21 Stakeholder consultation on economic, environmental and social topics	9		16	1, 2, 3, 4, 5, 6, 10	10
	102-22 Composition of the highest governance body and its committees	42		5, 16	1, 2, 3, 4, 5, 6, 10	
	102-23 Chairman of the highest governance body	42		16	1, 2, 3, 4, 5, 6, 10	
	102-24 Selection and appointment to the highest governance body	42		5, 16	1, 2, 3, 4, 5, 6, 10	
	102-25 Conflicts of Interest	44, 45		16	1, 2, 3, 4, 5, 6, 10	
	102-26 Role played by the highest governance body in the definition of purpose, values	44, 45				2
	102-27 Collective knowledge of the highest governance body	Executive officers and leaders of the Company are trained in ethics, integrity and compliance themes. In 2021, the entire board was submitted to training.				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
<b>GRI 102: General contents 2016</b>	102-28 Performance appraisal of the highest governance body	42				
	102-29 Identification and management of economic, environmental and social impacts	32, 33		16	1, 2, 3, 4, 5, 6, 10	9, 10
	102-30 Effectiveness of risk management processes	68, 69, 70, 71, 72, 73				4
	102-31 Analysis of economic, environmental and social topics	68, 69, 70, 71				
	102-32 Role played by the highest governance body in sustainability reporting	Senior leadership participates in the content validation process and the publication of this report.				2
	102-33 Reporting critical concerns	47				9
	102-34 Nature and total number of critical concerns	47				
	102-35 Compensation policies	All the compensation policies for Samarco's main executives and general Human Resources policies go through the People Committee, a body that advises the Board of Directors.				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 102: General contents 2016	102-36 Processes for determining compensation	All the compensation policies for Samarco's main executives and general Human Resources policies go through the People Committee, a body that advises the Board of Directors				
	102-37 Stakeholder involvement in compensation	External stakeholders (members of the community, governments, institutions, suppliers, etc.) are not involved in the processes for definition of leadership compensation.		16	1, 2, 3, 4, 5, 6, 10	10

STAKEHOLDER ENGAGEMENT

GRI 102: General contents 2016	102-40 List of groups of stakeholders	9, 10, 11				10
	102-41 Collective bargaining agreements	100% of employees are covered by collective bargaining agreements.		8		
	102-42 Identification and selection of stakeholders	9				10
	102-43 Approach to stakeholder engagement	9, 10, 11				10
	102-44 Main concerns and topics raised	9, 10, 11				10

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
REPORTING PRACTICES						
GRI 102: General contents 2016	102-45 Entities included in the consolidated financial statements	6				
	102-46 Definition of report content and limits on topics	9, 10, 11				
	102-47 List of material topics	10, 11				10
	102-48 Restatements of information	6				
	102-49 Changes to the report	6				
GRI 102: General contents 2016	102-50 Period covered by the report	6				
	102-51 Date of the most recent report	6				
	102-52 Report issuance cycle	Annual.				
	102-53 Contact for questions about the report	6				
	102-54 Reporting statements in compliance with the GRI Standards	This report was prepared in accordance with the GRI Standards option "Essential".				
	102-55 GRI Content Summary	116				
	102-56 External verification	148				



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
Material topics						
ECONOMIC PERFORMANCE						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	35, 36, 37				
	103-3 Evaluation of the management method	35, 36				
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	37		8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	9
	201-3 Obligations of the defined benefit plan and other retirement plans	The estimated value of the plan liability covered by the organization's general funds is BRL 61,436,307.00. In the case of the specific fund responsible for the payment of the pension plan liability, the estimate is BRL 94,380,527. The reference of the basis for calculation of the estimate was 31-Dec-2021 with registration data of 30-Jun-2021. The level of employee participation in retirement plans is 97%. Samarco monitors the employee's contribution. For employees with a salary below 10 URS, the contribution is 1%. For employees with a salary above 10 URS, the contribution up to 10 URS is 1% and, on the amount exceeding that, the employee chooses the % contribution and the Company accompanies it up to 9%. The benefit plan is a surplus, mainly due to the monitoring of the cost with the foundation, which has indicated adequate funding for the plan.				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 201: Economic performance 2016	201-4 Financial support received from the government	Samarco does not receive financial support from the government.				
MARKET PRESENCE						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	85				
	103-3 Evaluation of the management method	85				
	202-2 Proportion of senior management members hired from the local community	The company has 25% of board members hired from the local community, which is made up of places mapped by the socio-institutional area, as an area of direct influence.		8	1, 2, 3, 4, 5, 6	9
INDIRECT ECONOMIC IMPACTS						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	82, 83				
	103-3 Evaluation of the management method	82, 83				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 203: Indirect economic impacts 2016	203-1 Investments in infrastructure and service support	82, 83, 84, 86, 87		5, 9, 11	1, 2, 3, 4, 5, 6, 7, 8, 9	9
	203-2 Significant indirect economic impacts	Considering the limitation of funds intended for social and institutional investments, investments with these characteristics were not carried out.		1, 3, 8	1, 2, 3, 4, 5, 6	9

PURCHASING PRACTICES

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	91, 92, 93				
	103-3 Evaluation of the management method	91, 92, 93				
GRI 204: 2016 Purchasing practices	204-1 Proportion of disbursements with local suppliers	93		8	1, 2, 3, 4, 5, 6	9

FIGHT AGAINST CORRUPTION

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	44, 45, 46				
	103-3 Evaluation of the management method	44, 45, 46				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 205: Fight against corruption 2016	205-1 Operations assessed for risks related to corruption	44, 45, 46		16	1, 2, 3, 4, 5, 6, 10	1
	205-2 Communication and training in anti-corruption policies and procedures	46, 47		16	1, 2, 3, 4, 5, 6, 10	1
	205-3 Confirmed cases of corruption and actions taken	45		16	1, 2, 3, 4, 5, 6, 10	1

UNFAIR COMPETITION

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	44, 45				
	103-3 Evaluation of the management method	44, 45				
GRI 206: Unfair competition 2016	206-1 Lawsuits for unfair competition, antitrust and monopoly practices	There were no lawsuits filed for unfair competition, antitrust and monopoly practices in the period covered by this report.		16	1, 2, 3, 4, 5, 6, 10	1



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
TAXES						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	49				
	103-3 Evaluation of the management method	49				
GRI 207: Taxes 2019	207-1 Tax Approach	49		1, 10, 17	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	2
	207-2 Fiscal risk management, control and governance	49		1, 10, 17	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1
	207-3 Stakeholder engagement and management of their concerns	There are no processes for collection and evaluation of opinions and concerns of stakeholders regarding taxes.				
ENERGY						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	104				
	103-3 Evaluation of the management method	104				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 302: Energy 2016	302-1 Energy consumption within the organization	105		7, 8, 12, 13	1, 2, 3, 4, 5, 6, 7, 8, 9	6
	302-2 Energy consumption outside the organization	There is no energy consumption outside the organization.		7, 8, 12, 13	1, 2, 3, 4, 5, 6, 7, 8, 9	6
	302-3 Energy intensity	The assumption of this indicator will be reviewed for the year 2022, in line with the process of continuous improvement of Samarco's energy consumption.		7, 8, 12, 13	1, 2, 3, 4, 5, 6, 7, 8, 9	6
	302-4 Reducing energy consumption	104		7, 8, 12, 13	1, 2, 3, 4, 5, 6, 7, 8, 9	6
WATER AND EFFLUENTS						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	102				
	103-3 Evaluation of the management method	102				
GRI 303: Water and effluents 2018	303-1 Interactions with water as a shared resource	102		6, 12	1, 2, 7, 8, 9	6
	303-2 Management of impacts related to water disposal	102		6	1, 2, 7, 8, 9	6
	303-3 Water abstraction	103		6, 8, 12	1, 2, 3, 4, 5, 6, 7, 8, 9	6

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 303: Water and effluents 2018	303-4 Water Disposal	Samarco has little water loss in the mine operation and beneficiation process at the Germano Complex. Moreover, it maintains high water recirculation rates and low volumes of new water. Approximately 85% of the water used at Germano is process water that recirculates in the process. Among the “losses” to be highlighted is the water that conveys the concentrated ore from the Germano unit (MG) to the Ubu unit (ES), as well as any interface water that is added to the pipeline. However, it is also worth mentioning that the process water recirculation rates at Ubu are in the range of 95 to 99%, reusing almost all of the water received from Germano via pipeline.		6	1, 2, 7, 8, 9	6
	303-5 Water consumption	103		6	1, 2, 7, 8, 9	6

BIODIVERSITY

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	110, 111, 112, 113, 114				
	103-3 Evaluation of the management method	110, 111, 112, 113, 114				

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 304: Biodiversity 2016	304-1 Own, leased or managed operating units within or adjacent to environmental protection areas, and areas of high biodiversity value located outside protected areas	115		6, 14, 15	1, 2, 7, 8, 9	7
	304-2 Significant impacts of activities, products and services on biodiversity	110, 111, 112, 113, 114		6, 14, 15	1, 2, 7, 8, 9	7
	304-3 Habitats protected or restored	115		6, 14, 15	1, 2, 7, 8, 9	7
	304-4 Species included on the IUCN red list and national conservation lists, with habitats in areas affected by the organization's operations MM1 Amount of land (owned or leased, used for productive or extractive activities) altered or rehabilitated	114, 115		6, 14, 15		



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
Mining Sector - Biodiversity	MM1 Amount of land (owned or leased, used for productive or extractive activities) altered or rehabilitated	In 2021, in Espírito Santo, the rehabilitation of 24.44 hectares surrounding the Ubu lagoon continued, the planting of 5 hectares (5,555 seedlings from the Atlantic Forest biome) in the vicinity of the North dam and Mãe-bá Lagoon, and enrichment with 411 seedlings of native vegetation in the vicinity of Pardo river. (Plantation in maintenance). In 2021, the rehabilitation of 328 hectares was carried out in the municipalities of Alvinópolis, Mariana and Ouro Preto (MG). Counting around 235,650 seedlings from the Atlantic Forest biome, which contributed directly adjacent to the Piracicaba and Piranga rivers. Samarco presented a total of 798 impacted areas in the opening balance and there are 479.15 in the closing balance, and in 2020, 38.59 are of impacted areas and 357.44 are of rehabilitated areas. (Plantation in maintenance).			1, 2, 3, 4, 5, 6, 7, 8, 9, 10	7
	MM2 Number and percentage of operating units that require biodiversity management plans, in accordance with established criteria and number (percentage) of these units with plans in force	111		6, 14, 15	1, 2, 7, 8, 9	1, 2, 7, 8, 9

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
EMISSIONS						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	99				
	103-3 Evaluation of the management method	99				
GRI 305: Emissions 2016	305-1 Direct emissions (Scope 1) of greenhouse gases (GHG)	100, 101		3, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	6
	305-2 Indirect emissions (Scope 2) of greenhouse gases (GHG)	100, 101		3, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	6
	305-3 Other indirect emissions (Scope 3) of greenhouse gases (GHG)	100, 101		3, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	6
	305-4 Intensity of greenhouse gas (GHG) emissions	101		13, 14, 15	7, 8, 9	6
	305-5 Reduction of greenhouse gas (GHG) emissions	Information not available. It is not possible to calculate the reduction of emissions, as the variations observed are related to the suspension of production. Moreover, in recent years, changes in activities and number of employees have been intense. With the resumption of operations, 2021 will be the base year for future reduction targets.		13, 14, 15	7, 8, 9	6

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 305: Emissions 2016	305-6 Emissions of ozone depleting substances (ODS)	21.22 t of CFC-11 Equivalent.		3, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	6
	305-7 NOx, SOx and other significant air emissions	101		3, 12, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	6

WASTE

GRI 103: Management method 2020	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	106, 107, 108, 109				
	103-3 Evaluation of the management method	106, 107				
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	106		3, 6, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8
	306-2 Management of significant waste-related impacts	106		3, 6, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8
	306-3 Waste generated	107		3, 6, 12, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8
	306-4 Waste not allocated to final disposal	108		3, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8
	306-5 Waste for final disposal	108		3, 6, 11, 12, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
Mining Sector Supplement - Effluents and Waste	MM3 Total amount of overburden, tailings and slimes and their associated risks	106		3, 6, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	8

ENVIRONMENTAL COMPLIANCE

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	96, 97, 98, 99				
	103-3 Evaluation of the management method	96				
GRI 307: Environmental Compliance 2016	307-1 Noncompliance with environmental laws and regulations	97		16	1, 2, 3, 4, 5, 6, 10	6

EMPLOYMENT

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	50				
	103-3 Evaluation of the management method	50				



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 401: Employment 2016	401-1 New hires and employee turnover	58, 59		5, 8, 10	1, 2, 3, 4, 5, 6, 10	3, 9
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	57		3, 5, 8	1, 2, 3, 4, 5, 6, 10	
	401-3 Maternity/paternity leave	60		5, 8	1, 2, 3, 4, 5, 6	
Mining Sector Supplement - Closure planning	MM10. Number and percentage of operations with plans for closure of activities	39				9

WORK RELATIONS

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	50				
	103-3 Evaluation of the management method	50				
GRI 402: Relações de trabalho 2016	402-1 Minimum period of notice on operational changes	51		8	1, 2, 3, 4, 5, 6	3

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
OCCUPATIONAL HEALTH AND SAFETY						
GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	64, 65, 66, 67				
	103-3 Evaluation of the management method	64, 65, 66, 67				
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	64, 65, 66		8	1, 2, 3, 4, 5, 6	5
	403-2 Hazard identification, risk assessment and incident investigation	64, 65, 66		3, 8	1, 2, 3, 4, 5, 6, 10	5
	403-3 Occupational health services	64, 65, 66		3, 8	1, 2, 3, 4, 5, 6, 10	5
	403-4 Worker participation, consultation and communication to workers regarding occupational health and safety	64, 65, 66		8, 16	1, 2, 3, 4, 5, 6, 10	5
	403-5 Training of workers in occupational health and safety	67		8	1, 2, 3, 4, 5, 6	5
	403-6 Promotion of worker's health	64, 65, 66		3	1, 2, 3, 4, 5, 6, 10	5
	403-7 Prevention and mitigation of impacts on occupational health and safety directly linked with business relationships	64, 65, 66, 67		8	1, 2, 3, 4, 5, 6	5

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
GRI 403: Occupational health and safety 2018	403-9 Work-related accidents	67		3, 8, 16	1, 2, 3, 4, 5, 6, 10	5
	403-10 Occupational diseases	There were no cases of occupational diseases. Although the results do not demonstrate the occurrence of occupational diseases, the greatest occupational risks are related to the following agents. Physical - Noise and Chemical - Breathable Dust. The actions taken are included in the Respiratory Protection program (PPR) and the Hearing Conservation Program (PCA), being an integral part of the Risk Management Program, establishing the measures according to the foreseen control hierarchy.		3, 8, 16	1, 2, 3, 4, 5, 6, 10	5

TRAINING AND EDUCATION

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	50, 61				
	103-3 Evaluation of the management method	50, 61				
GRI 404: Training and education 2016	404-1 Average hours of training per year, per employee	61		4, 5, 8, 10		
	404-2 Programs for the improvement of employees' skills and assistance for career transition	The company does not have a program aimed at retirement, people in career transition, and after the termination of the employment agreement.				
	404-3 Percentage of employees receiving regular performance and career development appraisals	56		5, 8, 10	1, 2, 3, 4, 5, 6, 10	

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
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DIVERSITY AND EQUAL OPPORTUNITIES

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	54				
	103-3 Evaluation of the management method	54				
GRI 405: Diversity and equal opportunities 2016	405-1 Diversity in governance bodies and employees	55		5, 8	1, 2, 3, 4, 5, 6	9
	405-2 Ratio between the base salary and compensation received by women and those received by men		Information is considered confidential and proprietary.	5, 8, 10	1, 2, 3, 4, 5, 6, 10	9

NON-DISCRIMINATION

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	48				
	103-3 Evaluation of the management method	48				
GRI 406: Non-discrimination 2016	406-1 Cases of discrimination and corrective measures taken	48		5, 8	1, 2, 3, 4, 5, 6	3



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
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CHILD LABOR

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	91				
	103-3 Evaluation of the management method	91				
GRI 408: Child labor 2016	408-1 Operations and suppliers with significant risk of cases of child labor	91		8, 16	1, 2, 3, 4, 5, 6, 10	3, 9

FORCED OR SLAVE-LIKE LABOR

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	91				
	103-3 Evaluation of the management method	91				
GRI 409: Forced or slave-like labor 2016	409-1 Operations and suppliers with significant risk of cases of forced or slave-like labor	91		8	1, 2, 3, 4, 5, 6	3, 9

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
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SAFETY PRACTICES

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	48				
	103-3 Evaluation of the management method	48				
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	48		16	1, 2, 3, 4, 5, 6, 10	3

RIGHTS OF INDIGENOUS PEOPLES

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	82, 83				
	103-3 Evaluation of the management method	82, 83				
GRI 411: Rights of indigenous peoples 2016	411-1 Cases of violations of indigenous peoples' rights	There is no record so far, from the mappings that integrate the environmental impact studies carried out for existing and planned structures (in Samarco's current business plan) of territories or presence of Traditional Peoples and Communities (indigenous, quilombo remnants, etc.) in our area of influence.		2	1, 2, 7, 8, 9	3, 9

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
<b>HUMAN RIGHTS ASSESSMENT</b>						
<b>GRI 103: Management method 2016</b>	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	44, 45, 48				
	103-3 Evaluation of the management method	44, 45, 48				
<b>GRI 412: Human rights assessment 2016</b>	412-1 Operations subject to human rights or human rights impact assessments	84				3, 9
	412-2 Training of employees in human rights policies or procedures	We have not yet carried out training on human rights. One of the actions mapped out for 2022 is the creation and dissemination of Samarco's Human Rights policy, in which all employees will be trained.				3
	412-3 Significant investment agreements and contracts, which include human rights clauses or which have undergone human rights screening	Samarco does not have significant investment agreements and contracts that include human rights clauses and a process in place for human rights assessments in the contracting process. Mitigating actions are related to child and adolescent labor and forced (or slave-like) labor.				3, 9

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
<b>LOCAL COMMUNITIES</b>						
<b>GRI 103: Management method 2016</b>	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	82, 83, 84				
	103-3 Evaluation of the management method	82, 83, 84				
<b>GRI 413: Local communities 2016</b>	413-1 Operations with engagement, impact assessments, and local community oriented development programs	82, 83, 84				9
	413-2 Operations with significant potential adverse impacts – actual and potential – on local communities	88, 89		1, 2	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 9
<b>Food Sector Supplement – Local Communities</b>	MM6 Number and description of significant conflicts relating to land use and customary rights of local communities and indigenous peoples	No significant conflicts relating to land use and customary rights of local communities and indigenous peoples were identified.		1, 2	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 9
	MM9. Locations where resettlements took place, the number of households in each of them, and how their livelihoods were affected in the process	No resettlements were carried out. The processes linked to the Fundação dam collapse are under the management of the Renova Foundation. Read more on <a href="#">page 31</a> .		1,2	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 9



GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
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SOCIAL EVALUATION OF SUPPLIERS

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	91, 92, 93				
	103-3 Evaluation of the management method	91, 92, 93				
GRI 414: Social evaluation of suppliers	414-1 New suppliers selected based on social criteria	91, 92, 93		5, 8, 16	1, 2, 3, 4, 5, 6, 10	3, 9

PUBLIC POLICIES

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	44, 45				
	103-3 Evaluation of the management method	44, 45				
GRI 415: Public policies 2016	415-1 Political Contributions	As a way of maintaining impartiality, Samarco does not make financial donations to political parties or candidates for public office, contributions to political parties or candidates' campaigns (donations, facilities for political events or workspace for the campaign, sponsorship of events, transportation, etc.)		16	1, 2, 3, 4, 5, 6, 10	1

GRI Standard	Contents	Page/URL	Omission	Sustainable Development Goals	Global Compact Correlation	Correlation
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SOCIOECONOMIC COMPLIANCE

GRI 103: Management method 2016	103-1 Explanation of the material topic and its limit	10, 11				
	103-2 Management method and its components	44, 45, 49				
	103-3 Evaluation of the management method	44, 45, 49				
GRI 419: Socioeconomic compliance 2016	419-1 Noncompliance with socioeconomic laws and regulations	49		16	1, 2, 3, 4, 5, 6, 10	9



## Sustainable Development Goals (SDG)

- Poverty eradication
- Zero hunger
- Good health and well-being
- Quality education
- Gender equality
- Clean water and sanitation
- Affordable and clean energy
- Decent employment and economic growth
- Industry, innovation and infrastructure
- Reduction of inequalities
- Sustainable cities and communities
- Responsible consumption and production
- Combating climate changes
- Underwater life
- Life on earth
- Peace, justice and strong institutions
- Partnerships in support of goals

## Global Compact Principles

- Respect and support internationally recognized human rights in your area of influence
- Ensure that the company does not participate in human rights violations
- Support freedom of association and recognize the right to collective bargaining
- Eliminate all forms of forced or compulsory labor
- Effectively eradicate all forms of child labor from your production chain
- Encourage practices that eliminate any type of employment discrimination
- Take a preventive, responsible and proactive approach to environmental challenges
- Develop initiatives and practices to promote and disseminate social and environmental responsibility
- Encourage the development and diffusion of environmentally responsible technologies
- Combat corruption in all its forms, including extortion and bribery.

## Principles of the International Council on Mining and Metals (ICMM)

- Ethical Business:** apply ethical business practices and sound systems of corporate governance and transparency, to support sustainable development.
- Decision-making:** integrate sustainable development into corporate strategy and decision-making processes.
- Human rights:** respect human rights and interests, cultures, customs, and values of employees and communities affected by our activities.
- Risk Management:** implement effective risk management systems and strategies, based on solid scientific data, and which represent the perceptions of stakeholders' risks.
- Health and safety:** achieve continuous improvement in safety and health performance with the ultimate goal of zero harm.
- Environmental performance:** achieve continuous improvement in environmental performance issues, such as responsible management of water resources, energy use, and climate change.
- Biodiversity conservation:** contribute to biodiversity conservation and integrated approaches to land use planning.
- Responsible production:** facilitate and support the knowledge base and systems for responsible design, use, reuse, recycling and disposal of products containing metals and minerals.
- Social performance:** achieve continuous improvement in social performance, and contribute to the social, economic and institutional development of host countries and communities.
- Stakeholder engagement:** proactively engage key stakeholders in sustainable development challenges and opportunities in an open and transparent manner. Communicate effectively, and independently check progress and performance.



# Assurance report



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## Limited verification report issued by independent auditors

To the Board of Directors, Shareholders and Stakeholders  
**Samarco Mineração S/A.**  
 Belo Horizonte - MG

### Introduction

We have been engaged by Samarco Mineração S/A. (Samarco or “Company”) to apply limited verification procedures on the sustainability information disclosed in 2021’s Sustainability Report, related to the year ended December 31<sup>st</sup>, 2021.

### Responsibilities of Samarco’s Management

The Management of Samarco is responsible for adequately preparing and presenting the sustainability information in the Sustainability Report 2021 in accordance with the Standards for Sustainability Report of Global Reporting Initiative – GRI (GRI-Standards) as well as the internal controls determined necessary to ensure this information is free from material misstatement, resulting from fraud or error.

### Independent auditors’ responsibility

Our responsibility is to express a conclusion about the information in the Sustainability Report 2021 based on a limited verification engagement conducted in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards) and the methodology developed globally by KPMG for verification of social and environmental information disclosed in sustainability reports denominated KPMG Sustainability Assurance Manual - KSAM, applicable to historical non-financial information.

These standards require compliance with ethical requirements, including independence ones, and the engagement is also conducted to provide limited verification that the information disclosed in the Samarco’s Sustainability Report 2021, taken as a whole, is free from material misstatement.

KPMG Auditores Independentes (“KPMG”) applies Brazilian and international standards on quality control, and consequently maintains a comprehensive quality control system including documented policies and procedures related to compliance with ethical and professional standards, in addition to legal and applicable regulations. We comply with the comprehensive code of ethics including detailed independence requirements, established based on the ethical principles of integrity, objectivity, competence and professional care, confidentiality and professional behavior.

A limited verification engagement conducted in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards) and the KPMG Sustainability Assurance Manual - KSAM consists mainly of questions and interviews with the Management of Samarco and other professionals of the Company involved in the preparation of the information disclosed in the Sustainability Report 2021 and use of analytical procedures to obtain evidence that enables us to reach a limited verification conclusion about the sustainability information taken as a whole. A limited verification engagement also requires additional procedures when the independent auditor acknowledges issues which may lead them to believe that the information disclosed in the Sustainability Report 2021 taken as a whole could present material misstatement.

The selected procedures were based on our understanding of the issues related to the compilation, materiality and presentation of the information disclosed in the Sustainability Report 2021, on other engagement circumstances and also on our considerations regarding areas and processes associated with material sustainability information disclosed where relevant misstatement could exist. The procedures consisted of:

- (a) Engagement planning: considering the material aspects for Samarco’s activities, the relevance of the information disclosed, the amount of quantitative and qualitative information and the operational systems and internal controls that served as a basis for preparation of the information in the Samarco’s Sustainability Report 2021. This analysis defined the indicators to be checked in details;
- (b) Understanding and analysis of disclosed information related to material aspects management;

- (c) Analysis of preparation processes of the Sustainability Report 2021 and its structure and content, based on the Principles of Content and Quality of the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards);
- (d) Evaluation of non financial indicators selected:
  - Understanding of the calculation methodology and procedures for the compilation of indicators through interviews with management responsible for data preparation;
  - Application of analytical procedures regarding data and interviews for qualitative information and their correlation with indicators disclosed in the Sustainability Report 2021;
  - Analysis of evidence supporting the disclosed information;
- (e) Analysis of whether the performance indicators omission and justification are reasonable to be accepted associated to aspects and topics defined as material in the materiality analysis of the Company;

We believe that the information, evidence and results we have obtained are sufficient and appropriate to provide a basis for our limited assurance conclusion.

#### Scope and limitations

The procedures applied to a limited assurance engagement are substantially less extensive than those applied to a reasonable assurance engagement. Therefore, we cannot provide reasonable verification that we are aware of all the issues that would have been identified in a reasonable verification engagement, which aims to issue an opinion. If we had conducted a reasonable verification engagement, we may have identified other issues and possible misstatements within the information presented in the Sustainability Report 2021.

Nonfinancial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate or estimate these data. Qualitative interpretation of the data's materiality, relevance and accuracy are subject to individual assumptions and judgments. Additionally, we have not examined data related to prior periods, to evaluate the adequacy of policies, practices and sustainability performance, nor future projections.

#### Conclusion

Based on the procedures carried out, described earlier in this report, we have not identified any relevant information that leads us to believe that the information in the Sustainability Report 2021 of Samarco is not fairly stated in all material aspects in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards), as well as its source records and files.

São Paulo, June 27<sup>th</sup>, 2022

KPMG Auditores Independentes Ltda.  
CRC 2SP014428/O-6



Sebastian Yoshizato Soares  
Accountant CRC 1SP257710/O-4

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# Credits

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