

# ABOUT THIS REPORT

Using for the first time the G4 version of the GRI guidelines, we are providing more objective communication focused on the Company's material issues

Once more, Samarco is publishing its social, economic and environmental projects and indicators in this 2014 Annual Sustainability Report. In this document, the fourteenth of its kind, we underline our transition to the new version (G4) of the Global Reporting Initiative (GRI) which has direct impacts on the form and content involved. **GRI G4-28, G4-29, G4-30** 

In 2014, we carried out a new materiality process, based on direct consultation of some 200 persons and on the mapping of the perceptions of our stakeholders. This task took into account the opinions of customers, contractors,

suppliers, employees, communities, government entities and other opinion formers (read more on p. 34). Based on this survey, we have updated our list of relevant themes, which in turn influenced the definition of the GRI performance indicators which we report here. The process also had the contribution of the Company's leadership and is a reference for our current and future reports of sustainability actions.

The indicators refer to our industrial operations in Brazil, located in the States of Minas Gerais and Espírito Santo, using the same basis as our financial statements. Any deviations or changes from information provided in previous reports which could affect the analysis of data are described in footnotes. **GRI G4-17. G4-22. G4-23** 

In addition to the material issues, we have also used as a reference for the development of the contents of this report our Strategy Map and our Sustainability Model, as well as economic/financial matters relevant to the mineral sector. To narrow down the focus of our communication, we have chosen to use the option *Core – In Accordance* of the GRI G4 guidelines, reporting at least one indicator for each material aspect. **GRI G4-18, G4-32** 

Once more, we offer an on-line version of this report at <a href="https://www.samarco.com">www.samarco.com</a>. From now on, there will be no printed version, in keeping with the sustainability philosophy of reducing paper use and thus the environmental impact of the project, as well as cutting costs, in line with the trend of increased reliance on digital media for communication. At Samarco, the issue of sustainability reports is part of our exercise in behalf of transparency and construction of trust with Brazilian society.



Samarco's mine, in Mariana, MG.

#### **MATERIAL ISSUES**

Along this report, the icons below will represent out most relevant management topics (read more in page 34)



**1 SUSTAINABLE WATER USE** 



**2 INTERNALIZATION OF SUSTAINABILITY CULTURE** 



3 SOCIAL LICENSE TO OPERATE AND ENGAGEMENT OF NEIGHBORING COMMUNITIES



4 INFRASTRUCTURE – WITHIN SAMARCO AND AMONG LOCAL COMMUNITIES



5 QUALITY AND INCENTIVE TO HIRING LOCAL LABOR



6 CROSS-CUTTING ISSUES OF ETHICS AND CORRUPTION PREVENTION



7 FINANCIAL RESULTS THROUGH OPERATIONAL EFFICIENCY



**8 NOISE REDUCTION IN OPERATIONS** 



9 EMISSION REDUCTION IN OPERATIONS



**10 ENERGY EFFICIENCY** 

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### MESSAGE FROM THE CEO GRI G4-1, G4-2

Even facing a highly challenging scenario, marked by falling iron ore prices and an unstable economic and political context, we believe in a world that offers more value to all, built through partnering and trust relationships with those who influence or are influenced by our operations.

When we defined our 2022 Vision, we were well aware of the importance of this commitment and of the countless challenges we would have to face. After all, doubling Samarco's value and having it recognized by employees, customers and society as the best in the industry represents quite an ambitious goal, which can only be reached if it is combined with compliance in all our actions, with the pursuit of excellence in all we do, and with the sustained growth of our business.

In 2014, we took an important step forward in this regard. In April, we concluded our Fourth Pellet Plant Project (P4P), one of the largest expansion projects in the Brazilian private sector, involving investments of R\$ 6.4 billion and raising our production capacity by 37%.

With the start-up of P4P, our 2014 production closed out at 25.075 million tons of iron ore pellets and pellet/sinter feed, 15.4% more than in the previous year, thanks to a successful ramp-up on schedule.

As for the external environment, the year was marked by unrest in the Brazilian political arena, to an extent not seen for a long time. The presidential elections took place in a climate which intensified the discussion about the future of the country and brought to light an agenda of issues that require greater attention by the governing class, authorities, companies, institutions, individuals – in short, by society as a whole. One of these issues is the prolonged drought of recent years, which has a direct impact on the availability of water resources as well as on the production of energy in the regions where Samarco operates. These factors bring risks to our business, but also demand that we improve our processes and develop solutions to assure that Samarco has the necessary efficiency to keep up its operations over coming years.

Specifically in our industry, new market dynamics have been forming over the past years, with successive reductions in the price of iron ore, which is the raw material used to make the pellets that we produce and

sell to the global steel market. In 2014, the raw iron ore sales prices dropped 47% compared to the previous year, and the increase in world supply, combined with the slowdown of the strategic consumer markets, indicates a scenario that may not improve much in the coming years, possibly representing a new chapter in the history of our industry.

Our response to this new dynamics is based on four pillars – high productivity, product quality meeting our customers' needs, low production cost, and a positive reputation among our stakeholders. It is this approach that will allow us to operate successfully in a very competitive environment with declining prices. The effectiveness of our response can be seen in our sales results in the year – 25.1 million tons, well distributed among 36 customers from 19 countries. Net income reached R\$ 2,805.5 million, an outstanding result in the industry, which we consider as positive especially in view of the scenario we faced in 2014.

In addition to our careful commercial and operational planning, our performance has been assured by the competence and cooperation of our employees and contractors – who, mobilized to achieve results, seek differentiated solutions to overcome difficulties.

Throughout Samarco's history, we have stood together with society, particularly with the communities that lie within the areas of direct influence of our units, and, with transparent dialogue, we have obtained the \*social license\* to operate — one of the main pillars of our Sustainability Model. Day after day we strive to generate shared value, combining the gains won through the Company's growth with the long-term benefits we can generate for these regions.

The Fourth Pellet Plant Project is a good example of how we are able to promote the local development, both in Minas Gerais and Espírito Santo. In all, we have invested R\$ 8.6 million in social and institutional projects in

the municipalities within the area of Samarco's direct influence and contributed to the generation of almost R\$ 600 million in tax revenues during the construction period. In addition, all of the greenhouse gas emissions during this phase were neutralized by means of compensatory measures which received funding of R\$ 1.9 million. And the investments did not only take place during the construction period and development phase. We invested over R\$ 10.4 million in a series of social and institutional projects which contribute toward the positive transformation of people and regions where we operate. Over the next five years, the expected tax revenue resulting from Samarco's operations is of the order of R\$ 12 billion, already including full operation of the new plants.

We believe that management focused on ethics, integrity and fighting corruption is a precondition to the business sustainability and continued trust that we prize. In recent years, we have strengthened our compliance program, investing in tools and structures which allow us to disseminate guidelines and good practices, monitoring and handling any type of occurrence.

Samarco has an integrated production chain, end to end, which grants us more autonomy and competitiveness, while at the same time increasing our responsibility for the physical integrity of our workers, a non-negotiable priority for the Company. In this regard, we have in the past few years invested R\$ 80 million to reduce critical risks in work safety, making our plants safer and increasing the level of control of the activities which present higher risks.

However, in spite of all our efforts to prevent accidents and encourage safe behavior at the Company, after seven years with no fatal accidents, we did suffer one in 2014, involving a contractor employee. We also saw an increase in the total reported accident rate (with and without lost time) as a result of the impact of the ramp-up process of the P4P and, consequently, the larger amounts of employee and contractor personnel working at our facilities. The result of 1.27, although still positive compared to mineral industry standards, is not satisfactory in our view, so we have already started to implement improvements and adjustments in the various phases of the production process.

As for environmental issues, the investments in projects, equipment and technologies which allow the improvement of our management of critical points - such as water resources, atmospheric emissions, waste and tailings – amounted to about R\$ 88.3 million (not counting P4P investments) in 2014, and, adding up the past five years, totaled R\$ 453 million.



Ricardo Vescovi, CEO

Another important initiative in 2014 was a new materiality process, which defined and updated the list of issues relevant to our internal and external stakeholders. The survey included Company management, the community, government entities and opinion formers, among other publics, and resulted in the mapping of ten material themes for Samarco, which guided the development of the content of this report and, in future years, will influence ever more strongly the way we conduct our strategies and practices related to sustainability.

A positive reputation, high productivity, competitive costs and top quality products are the strategic goals we have set for 2015, a year in which we will bravely face the challenges we expect in the global iron ore market. We are ready to lead a Company which is recognized for its capacity to overcome obstacles and to deal positively with transformations of the market and society, thus building a business aligned with the future we envision for Samarco. Enjoy your reading!

Ricardo Vescovi de Aragão CEO



### OUR RESULTS

Based on our most relevant management themes,\* these are the main Indicators that reflect Samarco's performance in 2014



#### **SUSTAINABLE WATER USE**

**Approximately** 

90%

**of water recycling** in the production process

14.5%

of Samarco's industrial energy consumption

is supplied by the hydroelectric power plants Muniz Freire and Guilman-Amorim) 185

#### million

of cubic meters of water were reused by the Company between 2011 and 2014



#### INTERNALIZATION OF SUSTAINABILITY CULTURE

R\$287<sub>million</sub>

#### was the financial return

generated by 104 projects with the application of the Lean Six Sigma methodology and 833 projects with Kaizen

13

#### new approaches

to environmental training for employees

1,988

#### ideas put

in practice by the Field of Ideas program (*Campo de Ideias*)

1,795

#### participants

in skills development training about recycling domestic and industrial waste offered by the Samarco School of Excellence

<sup>\*</sup>Learn more about the materiality process, which we use to identify the themes distributed in this section, at page 34.



## SOCIAL LICENSE TO OPERATE AND ENGAGEMENT OF NEIGHBORING COMMUNITIES

R\$10.4

#### million

invested in social investment projects (not counting the Fourth Pellet Plant)

## Plans for Anchieta 2030 and Mariana 2030

#### Presented in 2014,

proposing systemic planning for the sustainable growth of these municipalities 184

#### dialogue meetings

with neighboring communities (Minas Gerais and Espírito Santo) gathering 2939 participants 44,192

### people from 18 municipalities benefited

from Volunteering Day (V Day) which had the participation of 3451 volunteers

## Strong reputation (index of 74.9)

### rating obtained in the survey held by Samarco,

which involved 2769 interviewees, from seven stakeholder groups



#### **QUALITY AND INCENTIVE TO HIRING LOCAL LABOR**

59%

#### of the 248 new

employees were local hires

R\$ 8.97

#### million invested in

training and skills development actions through *Saber Samarco* 

55%

#### was the percentage of local hires

among the workers of the Fourth Pellet Plant (total of 17,663) between 2011 and 2014



#### **INFRASTRUCTURE - INSIDE SAMARCO AND AMONG LOCAL COMMUNITIES**

37%

#### was the increased capacity

provided by the implementation of the Fourth Pellet Plant

R\$ 14

#### million invested

in research, technology and ecoefficiency, resulting in the delivery of five new innovative solutions R\$ 120

#### million of investment

in environmental programs and projects, including those related to the P4P (R\$ 31.5 million)

R\$3.8

#### billion in local

purchase for the P4P in Minas Gerais and Espírito Santo, between 2011 and 2014 R\$ 590

#### million in federal.

state and local tax revenue generated by the Fourth Pellet Plant works



### **CROSS-CUTTING ISSUES OF ETHICS AND CORRUPTION PREVENTION**

99%

#### of employees

trained with regard to Code of Conduct

146

#### grievances received

by the Ombudsmanship, of which 119 were investigated and resolved still in 2014 19

#### of the 26 action plans

existing on the theme of human rights were concluded and validated by the Human Rights Management Committee



#### **EMISSION REDUCTION IN OPERATIONS**

91.5 kg CO<sub>2</sub>e/t

#### is the intensity rate of greenhouse gas emission,

considering the ratio between the volume of emissions and the production of pellets and pellet/sinter feed



### FINANCIAL RESULTS THROUGH OPERATIONAL EFFICIENCY

25.075

#### million metric tons

total production of iron ore pellets and pellet/sinter feed

15.4%

#### was the production

increase achieved with the start-up of Fourth Pellet Plant 2.1%

### Reduction in the unit production cost

of iron ore pellets between 2013 and 2014

R\$2,806

million of reported net income,

2.7% more than in 2013

R\$ 7,601.3 million

#### gross revenue,

5% higher than in 2013, and the highest in Samarco's history

100%

#### of production sold

to customers distributed throughout 19 countries

R\$11,648.2 million

total gross indebtedness

of Samarco



#### **NOISE REDUCTION IN OPERATIONS**

1.00

#### Is our goal for reduction in the Health Risk Factor,

with a reduction of 3% over the past year. The main contributor to this reduction was improved noise control of operations



ENERGY

7.6%

of reduction in energy consumption

compared to the 2014 forecast





### **SAMARCO**

## Second in the global seaborne iron ore pellet market, we are one of the largest mining companies in Brazil

Over its 37 years of history, Samarco Mineração S.A. has consolidated its position as one of the major iron ore pellet producers on the seaborne market. We are a closely held Brazilian corporation, jointly owned on an equal basis by our two shareholders — BHP Billiton Brasil Ltda. and Vale S.A. We have operations in two Brazilian States — Minas Gerais and Espírito Santo — and a workforce of some 3 thousand direct hires and another 3.5 thousand contractor employees. **GRI G4-3, G4-6, G4-7** 

We have for many years ranked among the country's largest exporters, and in 2014 we were in tenth position, according to the Ministry of Development, Industry and Foreign trade (MDIC). **GRI G4-9** 

Through our exporting infrastructure, we supply customers in 19 countries, among Europe, Americas, Asia, Africa and the Middle East. Our product portfolio consists of iron ore pellets divided into two major categories according to their application – direct reduction (DR) and blast furnace (BF), as well as pellet feed/sinter feed. **GRI G4-4, G4-8** 

Samarco's current nominal production capacity is 30.5 million tons per year of iron ore pellets, after the start-up of the Fourth Pellet Plant Project (P4P) in 2014. During last year, we produced 25.075 million tons of iron ore pellets and pellet/sinter feed, reaching a gross revenue of R\$ 7,601.3 million, 5% more than in 2014, and the highest in the Company's history.

In addition to its industrial operations, Samarco runs a hydropower plant in Muniz Freire, Espírito Santo, and is a consortium member of the Guilman-Amorim plant in Antonio Dias and Nova Era, Minas Gerais.

Our management is based on three major pillars – compliance, excellence and growth. The guidelines, which involve full obedience to standards, laws and policies, maximum operational efficiency and a responsible business expansion, focused on transparency, solidity and continuity – are in alignment with our values and strategy planning (read more in Main strategy points, p. 26).

### OUR ESSENCE

#### **MISSION**

Produce and supply iron ore pellets in a technology-intensive way to optimize the use of natural resources and generate economic and social development while respecting the environment

#### **2022 VISION**

Double the value of the company and be recognized as the best in the industry by employees, customers and society.

#### **VALUES**

**Respect for people** – We We value life above any results and material goods. We respect the right to individuality, without discrimination of any kind, and honor our responsibility for the well-being of people and society, and for environmental protection, through the correct use of the resources necessary to our activities. We believe in our role in influencing and contributing to the social and economic development of the country, focusing on the future of next generations.

**Integrity** — We are committed to compliance with laws and respect for moral principles, striving for dignity and ethics in our relationships. We adopt an honest and transparent posture with all our stakeholders.

**Mobilization for results** – We seek to exceed established objectives and goals and persevere in doing better every day, with creativity, cooperation and simplicity, constantly seeking knowledge and generating innovative ideas to achieve outstanding and long-lasting results.

#### **PRODUCTION PROCESS**

Samarco has its corporate headquarters in Belo Horizonte, Minas Gerais, and sales offices in Vitoria, Espírito Santo as well as Amsterdam and Hong-Kong. We have two operational units — one in Germano, Minas Gerais, and the other in Ubu, on the coast in Espírito Santo, where we also have our own port. A strict control of all phases of our production process, from the mining of the ore to the outshipment of products abroad, is essential to supporting our main competitive advantages: low operational costs, efficient use of natural resources, mitigated socioenvironmental impacts and good work safety indexes. **GRI G4-5** 

The first phase of the process is the extraction of the iron ore from the open pit mines at the Germano unit, located between the municipalities of Mariana and Ouro Preto in Minas Gerais. Seventy percent of the ore is transported by a conveyor belt system to the concentrators, where the ore is beneficiated to increase its iron content. The tailings and the overburden remain at the Germano facility, and are stored in tailings dams and waste piles in compliance with environmental legislation.

The concentrated ore undergoes a thickening process to adjust the percentage of solids, resulting in a slurry with approximately 30% water, which is pumped through pipelines to Ubu in Espírito Santo.

Upon arriving in Ubu, the iron ore slurry goes through filtration and receives additives, in preparation for the pelletizing process itself. The pellets formed during the balling process are hardened through a heat treatment in the induration furnaces of the four pellet plants, and then stockpiled in yards prior to shipment from Samarco's port facility.

In 2014, we concluded the Fourth Pellet Plant Project (P4P) which included the construction of a third concentrator in Germano, a third slurry pipeline in parallel with the two previous ones, a fourth pellet plant in Ubu, and an upgrade of the port facility. The project had the goal of increasing annual production capacity by 37%. **GRI G4-13** 



Inauguration of the Fourth Pellet Plant in the first half of 2014.

### **OUR PRODUCTION IN NUMBERS**

**GRI G4-9** 



#### 70%

of the extracted ore is transported by conveyor belts



#### From 46% to 62%

increase in the iron ore content obtained with the beneficiation of the ore



#### 400 km

average length of each pipeline



#### 25 municipalities

in Espírito Santo and Minas Gerais are crossed by the pipelines



#### 36.5 million

tons per year of iron ore slurry pumping capacity of the pipelines



#### 6 km/h

average speed at which the iron ore travels from Germano to Ubu



#### 66 hours

average travel time of the ore between the two units



**9.5 million tons per year** capacity of the third concentrator of the P4P



**8.25 million tons per year** capacity of the fourth pellet plant of the P4P





# **CORPORATE GOVERNANCE**

With its streamlined organizational structure, Samarco assures transparent and sound business decisions



Samarco's decision-making structure consists of three tiers – the Company, representing its two shareholders BHP Billiton Brasil Ltda. and Vale S.A.; governance, formed by the Board of Directors and the Advisory Committees, and management, consisting of the Executive Board. This model provides Samarco with the necessary integration and dialogue between the shareholders and the executive leaderships, thus favoring the transparent conduction of business and the monitoring and updating of its strategy. **GRI G4-34** 

Our governance practices are supported by four pillars: corporate responsibility, transparency, fairness and accountability. These principles are outlined in our

documents and policies, such as the Code of Conduct, the Company By-Laws and the Shareholders' Agreement.

The main governance body of the Company is the Board of Directors, responsible for guiding and supervising the Company's decisions and actions. It is formed by four regular members and four alternates, who are appointed by our shareholders and do not hold any executive position within the Company. They have a term of three years and may be re-elected.

The Board of Directors receives support from four committees: Finance and Strategy, Operations, Remuneration and Audit, in addition to six advisory subcommittees: Taxes and Contingency, Treasury & Risks, Performance Management, Capital Projects, and Technical and Sustainability, plus a secretary.

The Audit Committee and the Risk Subcommittee (related to the Finance and Strategy Committee) were created in 2014, and the Technical Subcommittee changed its name to Technical and Sustainability. Another change made last year was the dissolution of the Fourth Pellet Plant Project Committee, in view of the conclusion of the project. **GRI G4-42** 

The Executive Board is responsible for business results and is formed by the CEO and the Directors/Officers for Operations and Infrastructure; Finance and Procurement; Projects and Ecoefficiency; Commercial; and Planning and Sustainable Management, the latter being temporarily managed by the CEO, Ricardo Vescovi, who does not sit on the Board of Directors.

It is the Board of Directors that is responsible for electing the CEO and periodically evaluating the executive board members, based on pre-defined key performance indicators. Regular audits are performed by the shareholders and by independent auditors.

In 2014, the Governance agenda was fully complied with, including meetings held every four months by the Board of Directors and the advisory committees, in addition to subcommittee meetings held every two months.

#### **BOARD OF DIRECTORS**

#### GRI G4-34

BHP Billiton Brasil Ltda..

Vale S.A.

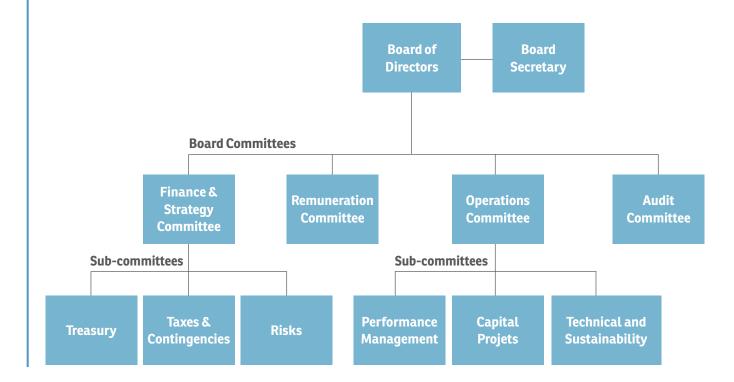
Regular members	lar members Regular members	
James John Wilson	José Carlos Martins	
Jeffery Zweig	Hélio Moreira Cabral	
Alternate members	Altamatamanham	
Atternate members	Alternate members	
Sérgio Consoli Fernandes	Stephen Potter	

#### **EXECUTIVE BOARD**

#### **GRI G4-34**

Ricardo Vescovi de Aragão	
Eduardo Bahia Martins Costa	
Kleber Luiz de Mendonça Terra	
Maury de Souza Júnior	
Roberto Lúcio Nunes de Carvalho	
Temporarily vacant	

#### **GOVERNANCE STRUCTURE**



#### **ROLES AND ATTRIBUTIONS**

GRI G4-42

#### **BOARD OF DIRECTORS**

- Define business and strategy guidelines
- Evaluate and approve business plans and budget, including capital investments
- Approve distribution of dividends and reinvestments
- Monitor results
- Assure management integrity
- Appoint CEO and evaluate the members of the Executive Board
- Define independent audit
- Verify compliance with law, statutes, shareholders' agreement
- Deliberate on changes in the capital structure of Samarco

#### ADVISORY COMMITTEES PROVIDING SUPPORT TO BOARD OF DIRECTORS

- Finance and Strategy Committee strategic, economic and financial issues
- Operations Committee technical and operations-related issues
- Remuneration Committee definition of compensation policies for the Company's main executives and development of general human resources policies, including the succession process for strategic positions
- Audit Committee ongoing review of internal control structures, including supervision of compliance structures to assure conformity of Company's operations and relations

#### **SHAREHOLDERS**

Samarco's relations with its two shareholders are handled through the Board of Directors which, in periodic meetings with them, presents issues, projects, strategies and matters previously discussed by the committees and subcommittees in order to assure assertive and integrated decisions.

Among the good practices adopted, the representatives of the shareholders refrain from reviewing any subject which could involve conflict of interest. Another channel for liaison and promotion of continuous improvement of governance is provided by the annual audits, carried out by the shareholders with the support of independent auditors.

### ETHICAL BEHAVIOR

Issues such as fighting corruption, respecting human rights and optimizing corporate conduct are addressed in the Company's day-to-day activities in accordance with its compliance program





For Samarco, management focused on ethics, integrity and anti-corruption is directly related to business sustainability, playing a crucial part in the construction of trust, management of risk and maintenance of the Company's reputation.

Through our compliance program, increasingly strengthened over the years, we invest in conformity at all Company levels and processes, through policies, training, processes, structures and control mechanisms.

Ever since its launching in 2002, the Code of Conduct is the main behavior guide for employees and contractors, dealing with subjects such as ethics, corruption, environment, health and safety and stakeholder relations, including government entities, business partners and customers. **GRI G4-56** 

In 2014, an especially critical year for Brazil in terms of corruption issues, Samarco lent continuity to its compliance program with training and updating sessions and implementation of new procedures which reinforce the assurance of ethical and honest behavior in external operations and relations.

One of the main points was the revision of the Code of Conduct, carried out at the end of the year. Adjustments were made to conform to Brazilian anticorruption law (Law No. 12.846), in addition to simplifying the text and layout, and including items such as practical examples of conflict of interest and behavior of employees in social media. The document is revised every two years by the Conduct Committee.

Another relevant measure referred to the training sessions focused on the Code of Conduct and compliance policies, delivered to both Company and permanent contractor employees. In 2014, training involved 99% of Samarco employees and 99.5% of contractor employees. The Samarco Board of Directors does not participate in training on the Code of Conduct or internal policies.

Other training sessions and periodic refresher courses focused on the internal public, covering content such as the Fraud and Corruption Prevention Policy (with participation of 99.9% of the employees in 2014), antitrust policy (with participation of 80.9% of employees in 2014), consequence management (with participation of 98.6% of employees in 2014), approval authority tiers



### OUR COMMITMENT TO ETHICS IS ALSO SUPPORTED BY THREE OTHER DOCUMENTS:

- Fraud and Corruption Prevention Policy addresses behavior aspects complementing the Code of Conduct GRI G4-56
- Antitrust Compliance Policy deals with procedures related to competitors, suppliers and customers in order to assure free competition GRI G4-56
- Policy on Offering and Receiving Gifts and Hospitality provides guidelines for relations developed with business partners GRI G4-56

(with participation of 73.3% of the employees in 2014), and travel procedures (with participation of 95% of the employees in 2014). **GRI G4-S04** 

Specific training on the Gift and Hospitality Policy had a participation of 96.4% of Samarco employees and 94% of contractor employees. **GRI G4-S04** 

Samarco monitors a specific risk addressing corruption, with evaluated causes and consequences. The risk deals with any reported or verified event or activity which could imply that the Company is involved in any process related to corruption or payment of graft in its operations and which causes financial losses and harms the reputation of Samarco and its shareholders, in addition to incurring in regulatory penalties, fines, impediment/limitation of operations and inspection of its activities. Another risk, addressed with specific controls and practices, refers to fraud.

In 2014, Samarco conducted an internal seminar to discuss corruption risks with the participation of representatives from the legal, finance, sales, communication and socio-institutional development, environmental, ombudsman's and external relations areas. The main internal controls were mapped, and structuring actions for improvements were initiated, covering 100% of Samarco's units. **GRI G4-S03, G4-14** 

#### **OMBUDSMAN'S OFFICE**

GRI G4-56, G4-HR3, G4-S05

Samarco has established an Ombudsman's Office to oversee compliance with policies and the Code of Conduct, as well as applicable laws and regulations, with its staff prepared to offer channels of communication, to receive and review grievances and suggest manners for minimizing risks, improving management and engaging employees and partners in the compliance environment.

Complaints and doubts related to ethics and conduct may be made by phone using a toll-free number, by e-mail using a form available in both English and Portuguese on the Company site, or by intranet sent in real time to the Conduct Committee in charge of the investigation. In 2014, the members of this Committee included the CEO, the Ombudsman, the executive assistant, the general managers of Health and Safety, Human Resources, Legal and Risk/Internal Controls.

Last year there was a larger volume of grievances and doubts, due to the dissemination of the channels, the internalization of good practices and the greater impact of this issue within the Brazilian context. There were 23 formal queries and 146 complaints, which mainly referred to the failure by contractors to comply with their financial commitments (29), instances of misbehavior (29), non

compliance with procedures and policies (27), and moral harassment (11).

In all, 119 of the 146 grievances were investigated and resolved, and the rest are still being looked into. Forty percent of the occurrences already analyzed were considered to be totally or partially justified.

During the year, the Ombudsman's Office received 13 specific accusations of discrimination of which two are being reviewed and 11 were resolved (five of them deemed justified). All of the discrimination acts were carried out by contractor employees, and not Samarco employees. Of the five verified cases, three resulted in the dismissal of the employee involved, one in an internal procedure change, and another in the involvement of the contractor to orient the accused employee.

As far as corruption is concerned, two accusations were made. One of the cases was closed, considered inconclusive, and the other is still under investigation.

For 2015, the objective is to reduce the average processing time of grievances, in addition to structuring investigation protocols of each type of occurrence and developing a movement to promote ethics with the engagement of our employees.



# COMPLIANCE IN THE VALUE CHAIN

In addition to our direct operations, we have the challenge of monitoring and controlling the impacts and risks related to our business partners and other stakeholders. To this end, we base our projects, relations and contracts on the Code of Conduct and the Corruption Prevention and Antitrust Compliance policies.

Since 2013, Samarco has had the support of the Human Rights Management Committee, composed by the CEO and the general managers of Human Resources, Legal, Procurement, and Communication and Socio-institutional Development, in addition to the Ombudsman's Office and Compliance.

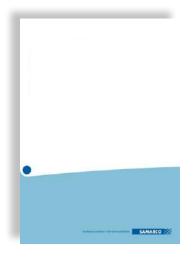
In 2014, the group held its scheduled quarterly meetings to propose initiatives and monitor and prevent human rights violations in the various processes of the Company, focused on supplier relations and operational compliance. The committee also organized a seminar of risk assessment of human rights violation, based on which 26 action plans were developed. Of these, 19 have already been concluded and validated by the Human Rights Management Committee.

Seeking to balance commercial relations of mutual benefit and suitable compliance controls, we invest in maintaining a good relationship with our 6.9 thousand suppliers. In 2014, some 80% of the raw material and service suppliers and 70% of materials suppliers had long term contracts in place with Samarco (read more in Main strategy points, p. 26).

The companies we deal with have to submit documentation on fiscal, legal, labor, financial health and technical quality aspects, among others. After the commencement of supply, periodic evaluations are held, addressing items such as delivery quality, safety and risks. In all contracts, there are clauses about safety, human rights and the prohibition of the use of child or slave-like labor.

In 2014, as a result of the efforts of the Human Rights Management Committee, we also initiated the structuring of an integrated evaluation process of suppliers on this issue. These approaches were already applied in early 2015, with companies in the fields of mining, agribusiness and civil construction, among others. The tool shall be continue to be implemented throughout the year.

Among service suppliers, audits are also performed, based on the indicators of *Instituto Ethos de Empresas e Responsabilidade Social*. Next year, this model will be revised and updated.





### RISK MANAGEMENT

In order to identify externalities which could affect the future of the business, we are investing in an active management, with seminars, tests and actions engaging Company leaderships

At Samarco, we consider risk management a basic requirement for fulfilling our business plans. In order to achieve our 2022 Vision and maintain the solidness of our results and our contributions to Brazilian society, we are investing in a system of internal risk management based on market benchmarks, international laws and the practices of our shareholders.

As outlined in our Policy for Risk Management and in the Manual of Corporate Risk Management, our model allows us to monitor, analyze and control the impacts of the main externalities which have the capacity to affect the future of our business.

The risks are classified according to their nature — such as market environment, legal aspects, health and safety and environmental impact — and also with regard to their level of criticality/materiality, considering essential aspects for the long life of our business. We are currently working with five categories: strategic, operational, project, financial/compliance, and health and safety. **GRI G4-2** 

Samarco reevaluates its risks every year, so that it can keep an eye on any changes in the environment perceived by its business, whether inside the Company (projects, strategies, results, etc.) or outside it (market, macroeconomic trends, etc.). The mapping is based on the projection and simulation of scenarios, in a task which involves the general manager of the given area as well as the technical areas of the Company. **GRI G4-2** 

Throughout 2014, over 30 seminars on risk assessment were held, focusing on strategies, operations and projects, in addition to specific evaluations such as those related to important events (World Cup and federal elections) and the availability of electric energy. Over 300 employees were involved. In all, 24 risks considered material were mapped along with 48 non material risks, with the development of over 500 initiatives to deal with them.

All of the risks have related action plans which are monitored monthly, and, when classified as material, the controls are subject to effectiveness evaluations, using

the Company's methodology. Among the materials risks already monitored is the sharp oscillation in the price of iron ore, providing an example of how Samarco can attempt to foresee this scenario and prepare to mitigate its impacts. Other relevant themes which arose during the year refer to water resources, in view of the prolonged drought in the Southeast Region of the country, and the pressure of costs, which have stimulated initiatives focused on productivity and excellence (read more in Main strategy points , p. 26).

Another highlight in the year was the progress made with the implementation of the Crisis Management and Prevention System, which establishes business continuity plans for the major material risks and proposes theoretical and practical drills for each plan. In 2014, we performed for the first time six joint drills to examine the Company's response capabilities to crises, involving the emergency services, the management areas and the Crisis Committee, impacting all levels of the organization.

Drawing upon our lessons learned and challenges faced over the year, in 2015 we plan to intensify control assessment and include new themes, in addition to consolidating the crisis management system.

#### **COMPLIANCE GUIDES**

Over the past three years, Samarco has been developing compliance checklists based on the Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act, used to supply the technical areas with knowledge and methods related to compliance management. In 2014, documents were concluded on the themes of Communication and Socio-institutional Development; Port Operations; Geotechnics and Dams. In addition, we revised the Procurement Guide. In 2015, we plan to develop the Health and Safety Guide, complement the Geotechnics and Dams Guide, with the inclusion of the subject of Waste Disposal; conclude the theme Real Estate Management; and revise the compliance guide for the Finance area.





### MARKET SCENARIO

New trade dynamics pose challenge to companies such as Samarco in balancing competitive costs, long-term commercial relations and a diversified customer base

During 2014, a new business environment was developing for the mineral industry, exposing companies like Samarco to a complex combination of commercial and operational challenges.

Contrary to other years, where higher prices and oscillations at higher levels remained a trend, we saw a sharp drop in iron ore prices, combined with an increased global supply.

With regard to the raw iron ore produced in Brazil, the free on board (FOB) ex-factory price fell from US\$ 100.5/ ton in January 2014 to US\$ 53.3/ton in December of the same year, a drop of 47%. Although less drastic, the iron ore pellet prices also suffered a proportionate reduction (see chart).

Among the factors influencing this change in the scenario are a sluggish resumption of growth in mature

economies, such as the US, the slight slowdown in the Chinese market, strategic due to its weight in the steel market, and an increased global supply of iron ore.

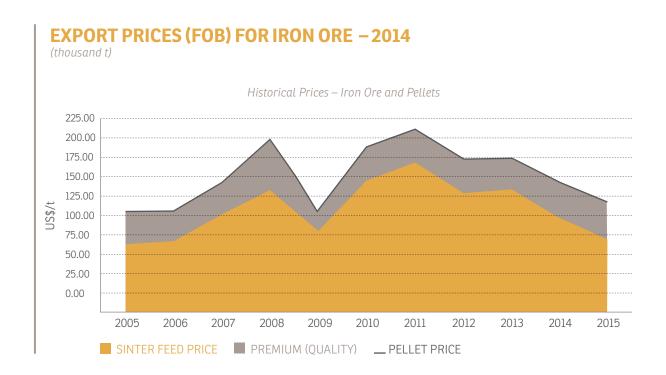
The slump in the ore prices impacted the entire mining industry, with broader repercussions in trade balances such as Brazil's, where the product is one of the main items in the exportation portfolio. Nationwide, the flow of exports fell by 7%, also influenced by the drop in the prices of commodities such as corn and soybeans, by lower oil prices, and by the variations in the exchange rates (see chart).

According to market analyses, the downward trend of prices is expected to continue in 2015, with a gradual recovery foreseen after 2016. The reduction in the demand for imported iron ore, in view of the consumption of intermediate stockpiles by Chinese steelmakers, helps to explain these forecasts.

#### **BRAZIL'S EXPORT VOLUME**

(in million US\$ FOB)

Country of sale	2014	2013	Variation
China	40,616	46,026	-11.8
European Union	42,047	47,772	-12.0
Middle East	10,419	10,954	-4.9
Argentina	14,282	19,615	-27.2
Africa	9,701	11,087	-12.5



#### **OUR POSITIONING**

At Samarco, we use the observation of risks and the projection of scenarios as a foundation for our actions to cope with the natural variations of our industry. Through our commercial, business intelligence, strategy and risk management areas, we update and revise our approach and define our focus, in order to adapt the Company to new market dynamics and assure its competitiveness, preserving our net margin and business results.

In 2014, we dealt mostly with the challenge of assuring minimum premium levels (differential value related to the quality of the product and the production process) for iron ore pellets, in a highly restrictive scenario.

In the medium term, we also have to work with a lower grade iron ore, due to the natural course of the mining process in Germano, Minas Gerais. This will require new investments in technologies to maintain the quality of our product (learn more about our investments on p.30) and its iron content, avoiding an impact on the sales prices.

On the other hand, in spite of the fact that the demand for our products — iron ore pellets — has remained high, assuring the commercialization of our entire annual production, we are aware that high productivity, cost reduction, profitability and commercial relations focused on the long term will leverage Samarco's value in the coming years, supporting the fulfillment of our 2022 Vision.

# STRATEGIC FOCUS

Strong reputation, trust relationships, leading technology, solid market position, and operational excellence are our paths to fulfilling our 2022 Vision



In order to face the short term challenges, protect its results, and fulfill its 2022 Vision, Samarco is putting trust in a process of strategic planning which values technological innovation, investment in sustainability and a management focused on costs, productivity and efficiency.

the organization to monitor ongoing projects and performance indicators in weekly meetings, with the participation of the Executive Board, following predefined agendas. **GRI G4-42** 



With 37 years in the mining industry, more specifically in the seaborne market, we have acquired important knowledge which allows us to anticipate challenging scenarios and respond to them without jeopardizing our vision of the future. Seeking to optimize this process, we revised our Strategy Map in 2012, which supplies guidelines for achieving our 2022 Vision.

In 2014 we performed an analysis of the consistency and sufficiency of our project and investment portfolio in order to assess its contribution to the implementation of the strategy. In addition, we included in the weekly agenda of the Executive Board the discussions of issues such as Market and Products, Reputation and Risk, Efficiency, Productivity and Costs, in line with the current demands of the Company.

Based on six drivers (see highlight), the map guides our business model. Under the coordination of the Planning and Sustainable Management Department, we have instituted management rituals which allow Throughout the year, we maintained the monitoring every four months of the progress of the projects and actions related to the Strategy Map, with Directors, General Managers, and other leaderships. This evaluation also involves the business plans committed to by each main department over a five-year period – a task performed in 2013. **GRI G4-42** 

### **STRATEGY MAP**

#### **OUR PATH TO FULFILLING THE 2022 VISION**

 $\begin{tabular}{ll} \textbf{Compliance} - management approach that permeates all drivers - the basis of our actions in behalf of responsible growth \\ \end{tabular}$ 

**Company value** – actions to strengthen our business, with a financial management capable of balancing cost reduction, revenue growth and value creation

**Markets and society** – investments to generate recognition by customers and other stakeholders, including employees, shareholders and government entities

**Operational challenges** – pursuit of excellence and productivity, with the effective use of available natural resources and strict control of efficiency

**Growth, innovation and technology** – investment in intelligent solutions of lower negative impact to assure competitiveness and a positive business future

**People, health and safety** – a healthy and safe working environment, promoting professional development.

In the short term, based on our drivers and current challenges, we determined that the essential elements for the success of our business are high productivity, low production costs, quality that meets market demands, and a strong reputation.

We reinforced, as planned, the process of strategic intelligence, based on the Pestelbusiness environmental analysis (political, economic, sociocultural and technological), obtaining information relevant to our planning. We also lent continuity to the independent thematic committees, which provide support to top management.

In 2015, we will conduct a new review of the Strategy Map, in addition to strengthening a process of integrated and collaborative competitive intelligence process and starting a long term planning project with the value chain, focused on cost reduction and organization of flows with the production chain.

#### **MARKET VISION**

In 2014, we kept up a good commercial performance, selling 100% of our production to 36 customers in 19 countries, among which China, Belgium, France, Germany, Arab Emirates, USA, Great Britain and South Korea. Our portfolio of business partners is strategically distributed among five major geographic regions (see map) which grants more predictability and solidity to the generation of results and reduces one of our main market risks dependence on specific areas.

In alignment with our Strategy Map, we work to optimize our relations with our customers, offering a range of products with a quality which meets the needs of the steel industry and customized requirements.

For the third consecutive year, we have advanced in the implementation of our new marketing strategy, with a segmented approach focused on business profitability and development of long term contracts and relationships. We face an adverse economic scenario in many regions, pressuring us to engage in short-term contracts, as well as challenges related to quality, inherent to a ramp-up process such as the Fourth Pellet Plant Project.

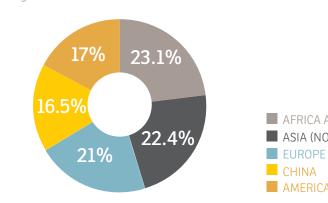
We hold presential or videoconference meetings along the year with our Executive Commercial Group, which consist of the Commercial Director and the general managers of marketing and sales for different markets, as well as the Commercial Managers meeting, in order to refine our commercial approach to each region. The focus is threefold – market intelligence, market relations and development of solutions.

Our offices in Holland, Hong Kong and Brazil are essential to the maintenance of long term relations with our customers. This is why, more than just meeting their needs and providing technical support regarding the use of our pellets, we invest in research and analyses which promote Samarco's understanding of local specificities.

In 2014, we once again revised our portfolio, mapping our competitive advantages and our strengths and weaknesses with regard to our competitors and market expectations. For the coming years, we have defined as a priority the enhancement of our segmented commercial approach, investment in sustainable growth with the customer, adjustment of our portfolio to the needs of each region, and a thorough analysis of the market scenarios and trends, seeking to optimize the balance of our product supply.

#### SAMARCO SALES





#### AFRICA AND MIDDLE EAST ASIA (NOT INCLUDING CHINA)



#### **CUSTOMER SATISFACTION**

Every month we assess customer satisfaction with regard to our products and services through the Customer Satisfaction Index (CSI). This tool was developed using a methodology based on the National Quality Program (PNQ) and ISO 9001.

In 2014, the CSI was 82.6%, which is a good result, especially taking into account the start-up and ramp-up of the Fourth Pellet Plant Project (P4P), which entailed a series of adjustments in the phases of distribution and stockpiling. The CSI results are used to assure the maintenance of the aspects required for excellent performance and for the suggestion of improvement in the identified areas.

<sup>\*</sup>Stage of adjustments and tests of the new Fourth Pellet Plant Project equipaments.

#### **IMAGE AND REPUTATION**

GRI G4-24, G4-25, G4-26, G4-27

Samarco considers corporate reputation as a valuable asset which indicates the level of confidence and esteem of the stakeholders with regard to the performance of an organization. This is why we have linked our 2022 Vision to the positive recognition we seek among our stakeholders, concerning our way of operating and generating value for society (read more in p. 32).

To accompany the evolution of Samarco reputation over the years, we have performed studies which bring important input for the development of institutional actions aligned with society's expectations. In 2014, we carried out, for the third time, a Reputation Study, consulting employees, neighboring communities, public authorities and opinion formers, including for the second time customers, suppliers and contractors. To do this, we engaged a specialized partner, the Reputation Institute, which uses the methodology RepTrak® Deep Dive.\* After making 2.7 thousand inquiries among representatives of our stakeholders, we determined a general indicator of 74.9 (compared to 71.6 points in 2013), which once again shows us to be an organization with a strong reputation, according to the methodology, which includes five categories (scale of 0 to 100, ranging from poor to excellent). When compared only among the universe of mining companies, Samarco's reputations reaches a level considered excellent, which is a benchmark for the sector. Among the results found in the study, there are good evaluations and perceptions on the part of employees, contractors and suppliers with regard to Samarco's performance. The points which are subject to improvement, as indicated by our customers and neighboring communities, refer to the strengthening of trust relationships, something we have been emphasizing.

Among the themes most commented by the respondents, to serve as guideposts for our management, are aspects related to governance. Citizenship and governance are important drivers and as such will always be important issues in our management, helping to strengthen our image and reputation.

Over the coming years, we have the ongoing challenge of upholding our positive reputation through the daily construction of trust relationships and dialogue with society. To this end, Samarco endeavors to manage the expectations of stakeholders and expand the perception related to the generation of the shared value it intends to implement.



\*The RepTrak® model for corporate reputation assessment addresses four main factors: (a) the reputation of the Company based on the level of esteem, admiration, empathy and trust, (b) the perception of the stakeholders about dimensions and attributes which explain reputation, (c) the predisposition of the stakeholders to support the company, and (d) the expectations of the stakeholders with regard to the company.

### RECOGNITION AND AWARDS

In 2014 we were elected for the second year in a row as the Best Mining Company and the second largest mining Company in the country (*Revista Exame*).

In addition, Samarco once again ranked first in the Mining and Steelmaking Industry (Anuário Época Negócios 360°) and was classified, for the fourth time, as one of the 150 best companies to work for in Brazil (Guia Você S/A).

#### **OTHER IMPORTANT AWARDS:**

- Inca Excellence Awards Digital (Ideas 2014)
- Ranking Benchmarking 2013 12th Edition of Programa Benchmarking Brasil
- Green Mine Award
- 14th Award Business Leader in Espírito Santo
- Environmental Award Findes/Senai
- One of the companies with best communication with journalists



# **EXCELLENCE AND PRODUCTIVITY**

As we consider high productivity one of the ways to maintain the Company solid and viable, we focus on programs and projects which seek to increase the efficiency of our processes, maximize the use of our assets, reduce loss and waste, and thus cut production costs.

We invest in operational excellence through Lean Six Sigma (LSS), an excellence program which uses the LSS, Kaizen and Lean Office methodologies to optimize the results of the processes. The first seeks to develop the critical and analytic capabilities of the employees, applying statistical and specific quality tools to resolve problems of medium and high complexity, consequently reducing the variability in processes to generate financial return for the Company, over a period of six to nine months.

As for Kaizen, it proposes improvements, mostly carried out by the operational technical staff, to solve problems of lesser complexity, also reducing loss and waste which

impact production costs. In 2014, 104 LSS and 834 Kaizen activities were implemented, generating R\$ 287 million in savings - 46% more than achieved in 2013 (R\$ 195.9 million). The Lean Office is based on the use of Lean tools and principles in administrative activities in the support areas, with the goal of reducing costs, eliminating rework, reducing idle time, increasing productivity and efficiency, as well as optimizing the use of the work area.

Another ally in achieving operational excellence is the *Campo de Ideias*, or Field of Ideas, which is a program launched some 15 years ago by Samarco, encouraging employees, trainees and contractors to think up solutions to innovate or improve our processes. Up to the end of 2014, over 10,700 ideas had been implemented thanks to this tool. In 2014 alone, 3805 ideas were submitted, of which 1988 were put in practice.

#### **MAXIMUM CAPACITY PROJECT**

Samarco is continually reviewing its production processes in order to find new ways in which we can respond to the challenge of achieving high productivity through already available assets. This quest is translated into the Maximum Capacity Project (PMC), a multidisciplinary initiative which is under study and will have a crucial role in allowing us to double the value of our business, even in a complex and ever more competitive scenario in the mineral industry.

In 2014, we made progress in the definition of the main investments, actions and areas of the production cycle which are to be addressed by the PMC. These include several assets such as the pipelines, the pellet plants, the concentrators and other Company facilities, in addition to the supply chain. In 2015, the department of the Manager of Projects and Ecoefficiency is scheduled to present this initiative to our shareholders.

# TECHNOLOGY, ECOEFFICIENCY AND INNOVATION GRI G4-14

Samarco believes that investments in innovation, ecoefficiency and technology are essential to allow the attainment of our strategic objectives and to face current challenges, which include a more restrictive legal environment for the mining industry, need for business diversification, trend towards a lower grade of our iron ore in the medium and long term, and increase in efficiency and productivity.

Aligned with our Sustainability Model, we have focused our research and development actions on the technological advances in the industry, applying them to our activities, in order to assure the perpetuity of our business. Under the coordination of the General Manager of Technology and Ecoefficiency, we are working with a portfolio of some 50 technological studies, grouped along six thematic hubs – Mineral Resources, Ore Waste and Tailings, Water Resources, Renewable and/or Alternative Energies, Energy Efficiency, and Atmospheric Emissions.

In 2014, the concluded studies brought some technological solutions to address in the future themes such as water, energy, better use of mineral resources, reduced dependence on the volume available in the dams, and control of greenhouse gases.

In all we invested some R\$ 14 million in the year, less than the R\$ 21.7 million forecast, due to the focus of the teams on specific projects, considered prioritary for the year. However, for 2015 the forecast is R\$ 24 million in resources. Five initiatives were concluded in 2014 (see details below) and are available for application within the Company. In 2013, six other technological studies were made available for implementation.

In recent years, we have put in practice some solutions which are already felt in our day to day activities. An alternative use of slimes, for example, allowed Samarco to sell this subproduct for use in the pigmentation of plastic wood. We also made it possible to manufacture interlocking blocks for paving, which use our sandy tailings as an additive. We are applying these blocks in social and infrastructure works (*leia mais na p. 72*).

As a consequence of the recognition of these efforts made by the company, the development of plastic wood using slimes as a pigment received a prize at the Sustentar fair organized in Belo Horizonte in 2014. At that time, and in the event Green Building in São Paulo as well, the Company presented some possible applications of tailings at its stand.

Future investments of Samarco capital already take into account the SAG (semi-autogenous grinding) and filter press technologies in the processing of iron ore. These studies were concluded in 2013 and are within the scope of our quest for the maximization of the use of our assets, in addition to the use of natural resources and increase in the efficiency of processes.



Samarco at the Greenbuilding Brasil - International Conference and Expo, in São Paulo.

#### STUDIES CARRIED OUT IN 2014 GRIG4-2

#### (1) Mix of waste and concentrate

We analyzed the alternative of concentrating a mixture of ores formed by 65% of itabirite waste (gangue/overburden) and 35% raw ore, in one of our concentrators. The solution, which is economically viable, if applied can strategically require less area for the disposal of waste and open up new business opportunities for the Company.

#### (2) and (3) Thickening of slimes and sandy tailings

With the objective of increasing the recirculation of water in the concentration, making the operation more efficient and reducing the need for new water intake, the solution studied and directed toward the Germano unit in Minas Gerais allows an additional increase in the concentration of solids before they are disposed of in the dams – thus also reducing volume requirement. The effective application of this solution will require a more systemic study.

#### (4) Generation of energy based on wood residue

The solution studied makes it technically viable for all lumber arriving at Samarco as packing for equipment and other materials to be properly processed and industrially transformed into thermal energy for the pelletizing furnaces, partially replacing natural gas/fuel oil (of fossil origin). We still have to overcome the challenge of making the application of this technology economically viable on a large scale.

#### (5) Coconut shell briquettes

We developed an opportunity for producing briquettes from the residue of green coconuts, a material found in large quantities on the Espírito Santo coast. In addition to providing an intelligent disposal for this waste product, we can foment a production chain and expand the participation of biomass in our energy base for our pelletizing furnaces. The next challenge related to this solution is to develop the production chain in the region as a sustainable business generating shared value.

# SUSTAINABILITY VISION

Our strategy includes investing in sustainability management and definition of goals which express our social, environmental and economic commitments



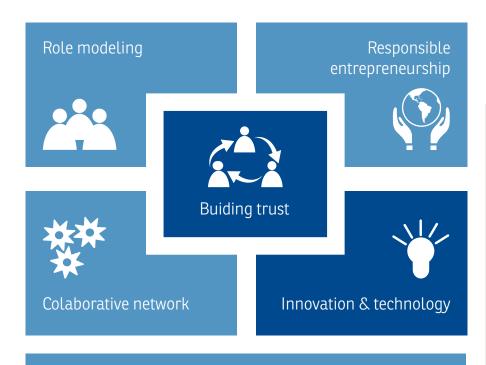


Samarco, aware of the opportunities it has to optimize its business model, with a direct link between sustainability and strategies and decision making, has a structured Sustainability Model in place since 2012. Supported by four pillars – leadership by example, innovation and technology, collaborative networking, and responsible entrepreneurism – the model is focused on the concept of constructing trust and is aligned with the Strategy Map and the 2022 Vision.

It is on the basis of the trust we have won of each stakeholder that we believe in our capacity to balance

business growth with the promotion of positive impacts, minimizing the negative externalities of our business.

Our main challenge currently is to disseminate these pillars not only among our executives and leaders, but also at all managerial, technical and operational tiers of the Company. In attunement with our investments in operational excellence, development of leaderships, innovation and social dialogue, we feel we are headed towards the effective application of the model in all our activities, internalizing a culture of sustainability among employees, contractors and external stakeholders.



Society will participate in the process of corporate decision-making, in order to influence and make a difference in the strategy and operational plan to assure shared value, fairness and a \*social license\* to operate and grow.

**Leadership by example** — This refers to the actions we should carry out internally to engage our workforce, making it a driver and a guardian of sustainable development, both within the Company and outside of it.

**Networking** – This activity allows the construction of mutual development relations, in partnership with civil society, government entities, customers and other stakeholders, generating a positive impact on Samarco's reputation within the industry and generating shared value.

**Innovation and technology** – Aligned with the Strategy Map, this pillar proposes the pursuit of technological and socioenvironmental excellence in operations, using a more efficient and streamlined production model, adding value to the business and consequently to society.

**Responsible entrepreneurism** — Reinforces our commitment to the three sustainability pillars, internally and in the value chain, based on ethical conduct.

#### **OUR COMMITMENTS**

GRI G4-15, G4-16

**Global Pact** – we have been signatories since 2002 to the UN Global Pact which supports ten universally accepted principles, always reporting our progress through our annual Sustainability Report

**Millennium Development Goals (MDG) –** as proposed by the UN in 2000

**Business Contribution for the Promotion of a Green and Inclusive Economy** – we signed this covenant in 2012, during the UN Conference on Sustainable Development (Rio+20)

**Open Letter to Brazil on Climate Change** – a document we signed in 2009, expressing the positioning of 21 companies from a variety of industries concerned about reducing greenhouse gas emissions

**Business Pact for Integrity and Against Corruption** – signed in 2006, during the International Conference of the Ethos Institute of Business and Social Responsibility, proposing better practices for fighting and preventing corruption



Samarco's employee during the distribution of plants in the Environmental Day

# MATERIALITY PROCESS

Lending continuity to our normal processes of consulting and communicating with our stakeholders, in 2014 Samarco carried out a new materiality process, in order to define and update its list of relevant themes, according to the perception of internal and external stakeholders.

In addition to interviews about specific themes with 14 executives of top management, focus groups were held with employees, involving 18 people. **GRI G4-43** 

The multi-stakeholder panels involved 25 persons, from the community and government entities, in Minas Gerais and Espírito Santo. In addition, an online survey consulted contractors, suppliers and opinion formers, forming a total of over 150 people, as well as the General Marketing Management, which maintains direct contact with our

customers, resulting in the mapping of the perception of this public. **GRI G4-24, G4-25, G4-26** 

The themes were prioritized and validated by Samarco leadership in specific meetings, with the direct involvement of the General Management of Communication and Socio-institutional Development. The process, which took place between November 2014 and January 2015, mapped ten material themes for Samarco (see infographic).

The new materiality matrix seeks a greater consistency with the Strategy Map and the Sustainability Model, in order to prioritize actions and strategies which respond to the immediate needs of the Company and our stakeholders.



Example of the Fourth Pellet Plant Projetct's social investment in Minas Gerais

Our materia GRI G4-19	lissues	What we will do GRI G4-27	Who we impact* GRI G4-20, G4-21	Connection with Sustainability Model
GKI G4-19			Community	<ul> <li>Innovation and technolog</li> </ul>
	Sustainable	Reduce abstraction of fresh water and strengthen the processes of efficient use of	Government bodies	• IIIIovation and technology
water use	water resources by Company	NGOs and entities		
	Internalization of sustainability	Engage employees and leaderships in socioenvironmental themes, aspects and	Employees	<ul><li>Leading by example</li><li>Responsible</li></ul>
30			Contractors	
culture	policies	Top management	entrepreneurism	
			Employees	<ul><li>Responsible entrepreneurism</li><li>Leading by example</li></ul>
	Cross-cutting	Accura compliance with our standards	Contractors	
·ñ.	issues of ethics	Assure compliance with our standards, policies and with applicable laws to ethics	Top management	
	and corruption	and behavior in all our internal and external	Suppliers	
	prevention	activities	Customers	
			Government bodies	
	Social license	Construct and generate value for the territory,	Community	<ul> <li>Responsible</li> </ul>
	to operate and engagement	providing communities with development	Government bodies	entrepreneurism
	of neighboring communities	opportunities and dialogue channels as well as rendering of accounts	NGOs and entities	<ul> <li>Collaborative networks</li> </ul>
Infrastructure – inside Samarco		Contribute to the quality of life in the area of	Community	<ul> <li>Responsible entrepreneurism</li> </ul>
	direct influence, with deliveries that benefit the	Government bodies	Collaborative networks	
	and among local communities	local population in addition to maximizing and structuring the Company's inner growth	NGOs and entities	<ul> <li>Innovation and technolog</li> </ul>
			Employees	Responsible
Ain	Quality and incentive	Value human capital among the communities	Contractors	Responsible     entrepreneurism
GIA	to hiring local labor	within the area of direct influence	Suppliers	• Collaborative networks
	Financial results	Assure the financial health of the business through investments in productivity, efficiency, excellence and cost reduction	Employees	• Leading by example
			Contractors	<ul> <li>Innovation and technolog</li> </ul>
through operationa efficiency	through operational		Top management	minovacion and technicity
	eniciency		Suppliers	
			Community	<ul> <li>Innovation and technolog</li> </ul>
	Reduction of noise in	Prevent occurrences, complaints and reports	Employees	•
$Co_2$	operations	of excessive noise or noise above operational standards in Minas Gerais and Espírito Santo	Government bodies	
		standards in Minas Gerais and Espirito Santo	NGOs and entities	
	Reduction of	in Reduce the level of emissions of atmospheric	Community	<ul> <li>Innovation and technolog</li> </ul>
emis	emissions in		Government bodies	
	operations		NGOs and entities	
Energy efficiency	Impro	Improve performance of operations in terms	Community	• Innovation and technolog
	Energy efficiency	of energy consumption, prioritizing its efficient use and reducing energy intensity	Government bodies	
			NGOs and entities	

<sup>\*</sup> The extent of the impacts indicates the main locations and publics, inside and outside Samarco facilities, where material themes are more critical.





# BUSINESS PERFORMANCE

Even facing a challenging scenario, we assure a positive financial performance and achieve an expansion of 15.4% in our production, driven by the P4P



In a year marked by slow recovery among some of the main global economies and a drop in iron ore prices, Samarco made an effort to reinforce the foundations of its growth strategy, based on productivity, market segmentation and efficient use of resources and assets, essential to assure the Company's financial health.

During the year, the production volume of iron ore pellets and pellet feed reached 25.075 million metric tons, an increment of over 15% compared to the previous year (when it was 21.737 million tons). This was driven by the start-up of the Fourth Pellet Plant Project ( (P4P – read more in Main strategy points, p. 27). This rise, still below the 37% expected for when the P4P is in full operation, refers to the ramp-up process of the third concentrator, the new pipeline and the fourth pellet plant, as well as the upgrade of the structures of the seaport terminal.

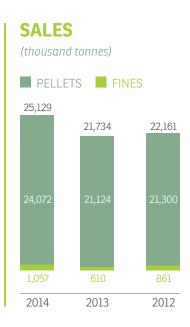
This adjustment phase went from April to August, and brought challenges related to supplying global customers and to productivity. The expectation is that in 2015 we

will be able to reach the top annual nominal production capacity of 30.5 million (37% above the level prior to project completion).

The start-up of the P4P comes together with a strategy for reducing costs and offsetting the lower iron ore prices, through increased volume and efficient use of production capacity. As we operate in a competitive market, our strategy is to maintain leadership in terms of low cost, in order to protect the Company from price variations and assure a stable net margin. We also balance the supply of different types of pellets to customers from various areas around the world, attuned to their needs and expectations (read more in Main strategy points, p. 27).

Even in this unstable market environment and facing the challenges of implementing P4P, our sales reached 100% of 2014 production, with 25.129 million tons exported (pellets plus pellet feed). The increment was of 15.6% compared to 2013 (21.737 million tons).







Our focus on customer satisfaction, with quality deliveries and efficient processes, is one of the drivers of our business success.

# **FINANCIAL RESULT**

The combination of increased production and sales with reduction of costs contributed to good results, even in the midst of a challenging marketplace scenario.

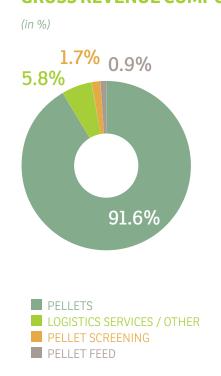
Gross revenue totaled R\$ 7,601.3 million, a hike of 5% compared to 2013 (R\$ 7,240.2 million). As for net income, in 2014 it was R\$ 2,805.5 million, 2.7% more than in the previous year.

The revenue results benefited from the increase in sales attributed to the conclusion of P4P and the gains resulting from the depreciation of Brazilian currency (average rate to the dollar of R\$ 2.6556, compared to R\$ 2.3420 in 2013), in addition to the income from the sale of surplus electric energy on the short term market, efficient contract management, and taking advantage of market opportunities.

However, some elements had a negative impact, such as the reduction in the average sales price of pellets, the smaller participation of DR pellets, and the increase in BF pellets.

Gross revenue in 2014 is mainly due to the sale of pellets, distributed between DR -48%, and BF -52% (see graphic).

# **GROSS REVENUE COMPOSITION IN 2014**



# SEE THE MAIN INDICATORS WHICH SUMMARIZE THE COMPANY'S PERFORMANCE IN 2014:

# **FINANCIAL INDICATORS**

(in R\$ million)

	2014	Variation (2013 vs. 2014)	2013	2012
Gross revenue	7,601	5.0%	7,240	6,611
Net revenue	7,537	4.6%	7,204	6,550
Gross margin (%)	58.0	-7.6%	62.8	61.3
Net profit	2806	2.7%	2,731	2,646
Ebit	3,410	-6.7%	3,653	3,357
Ebitda	3,762	-2.8%	3,870	3,554
Ebitda margin (%)	49.9	-7.1%	53.7	54.3
Investments	629	20.7%	521	643
Investments (P4P)	660	-69.4%	2,160	2,709
Total assets	19,557	30.1%	15,032	11,001
Net equity	4,313	14.8%	3,758	3,274
Gross indebtedness	11,648	29.0%	9,030	5,987
Net indebtedness	9,531	12.5%	8,475	5,215
Gross indebtedness/ Ebitda	3.1 x	34.8%	2.3 x	1.7 x
Roce	17.6	-21.8%	22.5	29.3

# **ADDED VALUE** GRI G4-EC1

In 2014, Samarco generated a wealth of **R\$ 9.242.187,00**, **11%** less than in 2013, and **R\$ 4.677.758,00** were distributed, as shown in the table below:

# **EBITDA**

The Ebitda result (operational profit plus net financial income, depreciation and amortization) was **2.8%** less than in 2013, while the Ebitda margin dropped **3.7%** 

Added value (%)	2014	2013	2012
Shareholders (remuneration on equity)	60%	65%	69%
Collaborators (remuneration, benefits and payroll costs)	10%	10%	9%
Government (taxes of all types)	13%	7%	14%
Retained earnings/loss in period	0%	0%	0%
Interest and rentals (remuneration of third party capital)	17%	19%	7%

# **COST OF PRODUCTS SOLD**

We measured the competitiveness of our costs through the cost of products sold - CPV, as part of our strategy to keep the Company at a differentiated level within the industry.

After delivering the P4P, we registered productivity improvements which reduced the unit cost of pellet production by about 6.5% ( (2014 – US\$ 53.42; 2013 – US\$ 57.11).

# INDEBTEDNESS, CASH GENERATION AND FINANCIAL OPERATIONS

Loans are instruments used by the Company to finance its long term projects and initiatives. The maintenance of the indebtedness profile and the stability of the repayment forecasts are important forms of assuring a good rating on the financial market.

The loans taken out for the construction of the P4P and other capital projects, as well as the upgrade works, are our main indebtedness factors, reaching R\$ 11,648.2 million in 2014.

This amount is 29% higher than the previous year, and is due to the phase of intensive investment in the expansion of the nominal production capacity, a project started

in 2011 and concluded in 2014. Another factor which contributed to the increase of indebtedness in Reais is the exchange rate effect, with the increase of the dollar to the Real rate over the past five years (2.6556 in 2014 vs. 1.6654 in 2010), which affected the statements in domestic currency.

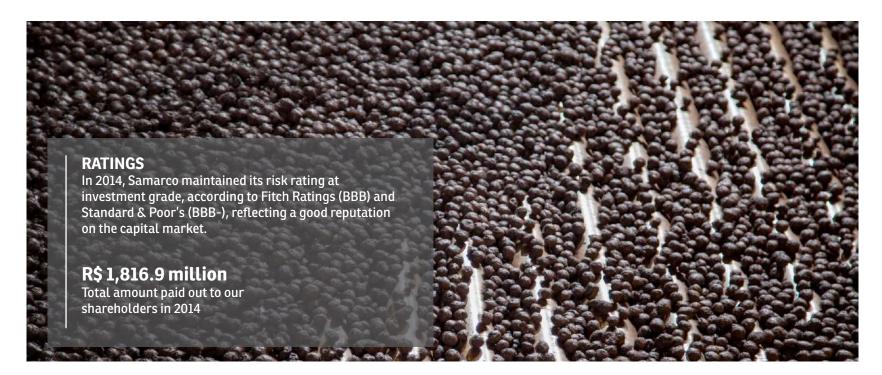
Currently 99% of our indebtedness is in dollars, as is our income. This way, we assure a natural protection against exchange rate variances, which represent a risk to Brazilian companies in the short term scenario.

We closed out the year with R\$ 2,118 million in cash, an expressive increase over the previous year, thus contributing favorably to the net indebtedness ratio (net indebtedness/Ebitda), which ended 2014 at 2.5x, slight higher than 2013 (2.2x).

In order to maintain our finances well balanced, in 2014 we performed some financial operations, especially raising funds on the international market through the issue of bonds, at a total of R\$ 1,327.8 million. In 2014, we also reported an input of R\$ 1,088.8 million relative to four operations carried out in 2014, in the form of export prepayment (EPP).

### **LEARN MORE**

Check out our complete financial results in the Management Report 2014, available on <a href="https://www.samarco.com">www.samarco.com</a>



# SOCIAL TRANSFORMATION

To encourage positive changes in the territories where we operate, we focus on the development of people and permanent dialogue with society









Samarco is committed to the positive transformation of the territories in its area of operation, positioning itself as a local development agent. Aware of the positive effects we are able to promote, we focus on the implementation of projects that foment local development and the interaction of social players, which leverage the quality of life in the territories of our operations.

Present in our Model of Sustainability and 2022 Vision (read more on page 32), reputation, good relations with stakeholders and transparency in social dialogue are considered essential actions for the sustainability of the Company. Therefore, we have policies, forums and guidelines, revised periodically in line with the Samarco Strategy Map.

In recent years, investments and programs targeted by our social transformation strategy have contributed to improving the quality of life in the area of influence, including the areas of education and income generation, volunteering and territorial development (read more below). Our priority is respect for the communities living near our operations and leaving a positive legacy where we operate. With the delivery of the Fourth Pellet Plant Project (P4P), for example, as well as volunteer investments and funds from investment requirements, we have developed a series of cultural, educational, infrastructure and qualification actions oriented to the community.

In 2014, we conducted a new materiality process, through which we identify the most relevant issues for Company management, according to the perception of our internal and external stakeholders (read more in Sustainability Vision, page 34). Through those practices, we have strengthened the interest in promoting social dialogue and integrating society's views with our business planning.

# **COMMUNITY**

The culture of exchange, listening and ongoing dialogue with the communities affected by Samarco activities is a major driver for building trust between us and the society. Today, Samarco operations have a direct influence on more than 840,000 people in 81 communities, 30 municipalities in the states of Minas Gerais and Espírito Santo.

We believe in the purpose of open dialogue and trust we have with different players in the territory, focusing on the maintenance of relationship channels and forums, on strategies that govern socio-institutional investments and engagement of our stakeholders.

Among the structured forums of dialogue, we have meetings with the community; the Samarco Environmental License Monitoring Forum (Falas, deployed in Espírito Santo); Local Development Committees; the Leadership meetings; and the Visit Program. In these forums, we address the negative and positive impacts, qualify and develop the communities, take information on the Company and listen to people.

Our social transformation strategy is to focus on education and income generation; territorial development; and citizenship and social participation (see table on p. 45). In the education and income generation area, we leverage sustainable development through universalization of knowledge, based on three pillars: formal education (Citizen of the Future); education for income generation (Rural Producer Development Program); and environmental education (Environmental Education Program) (read more about the programs on the next page).

With regard to territorial development, the second front defines partnerships and ties among public authorities, society and Samarco, contributing to sustainable

development of the direct area of influence of the Company. This line comprises investments in institutional capital, support to the development of local and regional development plans, training of public managers and leaders, and attraction of new business to feed the chain of value of Samarco and of each municipality.

The third front, citizenship and social participation, addresses internal engagement with projects that disseminate the culture of sustainability among employees – who we see as effective agents of change of the territory - through volunteer work.

In 2014, year of delivery of the Fourth Pellet Plant Project (P4P), we focused our efforts on maintaining an open communication with the community, the public authorities and local governments, rendering accounts about the progress, lessons learned and benefits generated by the project in territory. During the delivery of the project, we had the opportunity to thank for the support from the community and public authorities during the construction period, in addition to highlighting the socio-institutional investments made in the period and taking stock of the lessons learned.

As part of the actions related to the completion of the P4P, Cine Samarco was deployed, a traveling movie theater that went to all communities from Minas Gerais and Espírito Santo involved in the project. The movie showings took place simultaneously to the project completion meetings and reached more than 23,800 people.

# SOCIAL INVESTMENT

Samarco investments in the community can be direct (proposed by the Company) or indirect (through proposals developed by external institutions). In volunteer investments, the allocation of funds is based on the Socio-Institutional Investment Policy (PIS) and, in 2014, resulted in more than R \$ 10.4 million applied voluntarily (see table), above the last two years. Among the forms of support, we have the following: institutional contribution, sponsorship, donations and projects.

In addition to the voluntary funds, further R \$ 10.4 million were invested in a compulsory manner, in line with requirements and commitment statements taken by the Company. These figures do not include investments related to the Fourth Pellet Plant Project (see table on page 52).





Cine Samarco went to all communities in Minas Gerais and Espírito Santo directly envolved at the Fourth Pellet Plant Project (P4P)

		2014	2013	2012		
Volunteer	PIS	10,470,184.74	9,061,856.65	10,217,148.85		
	Requirement 53	3,437,978.90	3,634,988.37	2,184,462.60		
Commulación	TCSA	6,180,582.53	1,059,782.80	114,065.00		
Compulsory	TC Santa Bárbara	847,776.33	-	-		
	Total compulsory	10,466,337.76	4,694,771.17	2,298,527.60		
	Socio-institutional investment P4P*		R\$ 8.6 million			

<sup>\*</sup>Funds applied during the execution of the project, between 2011 and 2014.

# SOCIAL DIALOGUE GRI G4-S01, G4-S02

Meetings with community leaders and communities, development committees, operation visitor programs, and Samarco Environmental License Monitoring Forum (Falas) represent the main channels of social dialogue. The Falas program, coordinated by the State Institute for the Environment and Water Resources (IEMA), has the participation of Samarco representatives, inhabitants from neighboring communities (near the Ubu plant), NGOs, local authorities, and local water basin.

Through all these channels, we've received contacts and mapped information, demands, doubts and needs of the community in the areas of direct influence. In 2014, 1,865 people were served in Minas Gerais (95 forums) and 1,074 in Espírito Santo (89 forums).

At the Samarco Relationship Center, society can make suggestions, complaints, claims and others, by phone (0800-031-2303). There is also the Contact Us, available through the site <a href="https://www.samarco.com">www.samarco.com</a>.

Through these channels, we gather community suggestions and information regarding our activities and our relationship, mapping opportunities for improvement that influence Company planning and social dialogue initiatives. The geographical proximity of some communities to the operations – such as Antonio Pereira (Ouro Preto), at the Germano unit (MG), and Mãe-Bá, Recanto do Sol, Ubu and Parati (Anchieta), in Ubu (ES) – for example, results in specific impacts of our operations.

With the records of issues identified by the communities, we can address those impacts, through the relationship channels and socio-institutional projects. Among the aspects deemed the most critical by the community, we have emissions, water, noise, urban mobility and hiring of local workers.

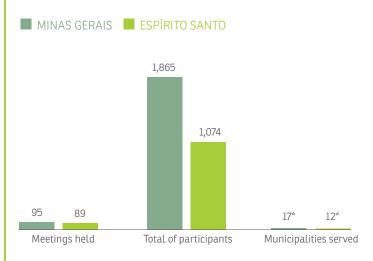
# CONTACTS MADE THROUGH THE RELATIONSHIP CENTER-2014<sup>1</sup>

GRI G4-S011

Assunto	Contatos realizados	Contatos tratados	Contatos tratados (%)
Complaints	378	273	72%
Claims	8	6	75%
Other <sup>2</sup>	4,967	4,712	95%
Total <sup>3</sup>	5,353	4,991	93%

<sup>&</sup>lt;sup>1</sup>From the total of contacts in 2014, 378 relate to the P4P.

# **SOCIO-INSTITUTIONAL FORUMS**



<sup>\*</sup>Without considering capitals (Belo Horizonte and Vitória).

# SOCIAL COMMITTEE OF BRUMAL

In 2013, we organized a social committee in the community of Brumal, municipality of Santa Bárbara (MG). The function of this forum is to strengthen neighborly relations and establish a dialogue channel and ongoing relationship between Samarco and the community, which was involved with the construction works of the water main installed in the region.

The meetings had the participation of community representatives, defined by the inhabitants, and public authorities. Ten meetings were held between November 2013 and April 2014.



<sup>&</sup>lt;sup>2</sup>Other contacts include compliments, alerts, invitations and information on several subjects, such as suppliers, market and clients, P3P, environment, health and safety and social investment.

<sup>&</sup>lt;sup>3</sup>From the total of contacts, 1,560 relate to job opportunities.



Baú Econhecimento

# **POSITIVE SOCIAL IMPACT**

GRI G4-S01

	EDUCATION	TERRITORIAL DEVELOPMENT	INTERNAL SOCIAL ENGAGEMENT
FOCUS/AREAS	<ul> <li>Formal Education</li> <li>Education to income opportunities</li> <li>Environmental Education</li> </ul>	<ul> <li>Support to Municipal Development</li> <li>Plans (Integrated and sustainable)</li> <li>Training of government agents and development of leaderships</li> <li>Creation of intersectoral alliances to attract business (aligned with the Samarco value chain)</li> <li>Incentive to development of bills related to sustainability, aligned with Samarco strategies</li> </ul>	● Citizenship and Social Engagement
METHODS/PROGRAMS	<ul> <li>Citizen of the Future</li> <li>Farm Productivity         Enhancement Program</li> <li>Environmental Education in         School Program</li> </ul>	Avenues of Sustainable Development:  • Anchieta 2030  • Guararapi 2030  • Mariana 2030	<ul> <li>Volunteering</li> <li>V Day</li> <li>Junior Achievement</li> <li>Solidary Tax Program</li> </ul>



Farm Productivity Enhancement Program is developed with partners

# Rural Producer Development Program

Started in 2008, the Rural Producer Development Program promotes the improvement of income, qualification and productivity gains and quality of life of coffee farmers and their families in 11 municipalities in the States of Espírito Santo and Minas Gerais.

The program affects coffee farmer from the region of Caparaó, along the pipelines, in the cities of Jerônimo Monteiro, Alegre, Guaçuí, Dores do Rio Preto and Muniz Freire, near the Samarco hydropower plant. Another area of operation affects producers from Zona da Mata Mineira, a traditional coffee producer region in the municipalities located along the route of the pipelines (Espera Feliz, Divino, Santa Margarida, Orizânia and Matipó). Currently, around 540 farmers in both states participate in the program.

Through courses and consulting, the farmers learn how to add value to their coffee, improving the quality of the product and production processes, generating social, economic and environmental benefits. The productivity improvements are measured by indicators (see *chart*).

The initiative, developed by Samarco in partnership with the Federal Institute of Espírito Santo (Ifes), through Caparaó Junior, is today one of Samarco's main actions of the strategy of social transformation. For 2015, the goal is to maintain the number of actions, assess applications for adhesion of new communities and establish a geographical indication for the product in the region of Caparaó.

# **DIRECT INVESTMENT**

Rural producer qualification program

	2014	2013	2012
Communities	30	23	12
Short courses	5	3	12
Assisted producers	882	541	366
Soil samples	1,783	1,412	791
Assisted crops	1,755	1,412	791
N°. of plants	5,857,244	4,712,494	3,900,000

# PRODUCTIVITY SAMARCO PROGRAM ESPÍRITO SANTO MARKET 36 38.9 35.02

Coffea canephora Pierre

### IN 2014

- 30 assisted communities (MG and ES)
- **8.8 million** of plants (against 320 thousand in 2009 and **4.7 million** in 2013)
- **1,786** crops diagnosed in 2014

# Citizen of the Future

Coffea Arabica L.

The purpose of the Citizen of the Future program is to contribute to improving the quality of education in the municipalities of Minas Gerais and Espírito Santo. The initiative is developed in three fronts: qualification of teachers, improvement in school management and workshops for the students, focused on the learning of Portuguese and Mathematics. The program also provides for the performance of assessments and diagnoses on the teaching methods used in the institutions of both states. In 2015, the expectation is to expand the mini-courses for students, focusing on the disciplines of Portuguese and Mathematics.

# IN 2014

- **790** participants in:
- **3 seminars** in MG (Mariana, Ouro Preto and Santa Bárbara)
- **2 seminars** in ES (Anchieta and Guarapari)

# Environmental Education Program (PEA)

The program disseminates among public school students knowledge on respect for the environment and sustainability, through the projects Baú ECOnhecimento (mobile library with books, DVDs, puppets and costumes) and Environmental Citizen - in which students develop a field

### **IN 2014**

- 38 schools involved
- **914** teachers
- 10,237 students
- 8 municipalities

research from the observation of a local socio-environmental reality, resulting in simple and feasible actions in the communities that will be presented at a seminar for local authorities.

In 2014, the PEA covered 38 schools in Minas Gerais and Espirito Santo, with mobilization and behavior change actions. As part of the Samarco's concern with the topic of water - highlighted in the materiality revised in 2014 - information on the subject is being addressed in the SAP.

Among the Social Transformation Strategy, Samarco promotes workshops with the communities



# Volunteers – V Day

In the front of internal engagement, Samarco encourages its employees and contractors to participate in volunteer activities, promoting actions that improve the quality of life of local communities and contribute to local development.

We participate annually in the V Day, organized by the Federation of Industries of the State of Minas Gerais (Fiemg). In 2014, there were interventions in nine locations covering approximately 45 thousand people.

### **IN 2014**

- 3.5 thousand volunteers
- 18 municipalities (9 in MG and 9 in ES) involved
- 45 thousand people benefited



# Junior Achievement

Samarco's partnership with the NGO, which performs actions focused on entrepreneurship for young students, involved 17 schools in 2014, of which seven in ES and ten in MG.

### **IN 2014**

- 17 assisted schools
- 112 direct employees involved as volunteers
- 1.077 assisted students
- 1.364 hours donated in classes/ applications



In 2014, the V Day had over 3,5 thousand volunteers





### **IN 2014**

- 3 municipalities involved
- Anchieta 2030 Plan launched
- Development of **Guarapari 2030** and **Mariana 2030** plans

# Systems Thinking: avenues for sustainable development GRI G4-16

Since 2013, we have been working on a regional governance project, based on the methodology of Systems Thinking for the municipalities of our area of influence. Based on our business experience, we have identified local issues and priorities, mapped future scenarios and helped the public authorities and the community to suggest strategies ("avenues") of development and strengthening of local management.

The project represents an opportunity to contribute to the sustainable development of the municipalities in Espirito Santo and Minas Gerais in which we operate, preparing them for future opportunities and encouraging self-sufficiency and the well-being of the population.

In 2014, the pilot project, executed in Anchieta (ES), was produced, resulting in the delivery of the strategic plan Anchieta 2030. The next step is related to the qualification of public managers of Anchieta in management tools and methodologies; monitoring of their application, by structuring a set of projects and funding; the structuring of the governance process; and communication of project development and success.

Also during the year, we conducted the program in Mariana (MG) and Guarapari (ES). Both municipalities will have their 2030 plans launched in 2015.

# Solidarity Tax

Under the voluntary Solidarity Tax program, Samarco employees can choose to allocate up to 6% of their Income Tax payable as a contribution to the Municipal Child and Adolescent Councils.

In 2014, we achieved greater adhesion of volunteers in Espírito Santo and Minas Gerais, an increase of 31% and 6%, respectively. In general, there was a 9% increase in the number of volunteers as compared to the 2013 campaign.

# **IN 2014**

- 372 volunteers mobilized, with total collection of R\$ 224,866.00 (ES – R\$ 75,336.00 and MG – R\$ 149,530.00)
- **R\$ 2,107,696.00** allocated by Samarco's employees, divided as follows:
- ES R\$ 798,931.00
- MG R\$ 1.308.762.00

# P4P ASSESSMENT: CONTRIBUTION TO DEVELOPMENT

GRI G4-EC7, G4-EC8, G4-S01

In 2014, with the delivery of the Fourth Pellet Plant Project, we closed a cycle of major investments in infrastructure and socio-institutional projects, which boosted the development of the territory and brought concrete improvements to the lives of thousands of inhabitants from Minas Gerais and Espirito Santo.

# SOCIOECONOMIC INDICATORS

In a volunteer and unprecedented manner, Samarco monitored the possible interferences of P4P in the seven municipalities in the area of direct influence in the Ubu (Anchieta, Guarapari and Piuma) and Germano (Catas Altas, Mariana, Ouro Preto and Santa Barbara) units.

The following indicators were assessed and monitored: health, education, public security, mobility, labor, income and generation of local, state and federal taxes in those municipalities. The process was hands-on and shared among Samarco leadership, civil society, private sector and public authorities. Check the main results:

# LOCAL PURCHASES R\$ 3.8 billion

In the P4P , local purchases reached R\$ 3.8 billion. The Company allocated R\$ 1.8 billion in purchases for the project in Ubu (ES). The figures show 56% (R\$ 976 million) of total purchases in Espírito Santo, 20% (R\$ 351 million) in Minas Gerais and 24% (R\$ 430 million) in other states. At the Germano unit (MG), total purchases achieved R\$ 2 billion: 72% (R\$ 1.5 billion) in Minas Gerais, 6% (R\$ 120 million) in Espírito Santo and 22% (R\$ 454 million) in other states. Of this total, approximately R\$ 325 million of direct purchases of products and services occurred in seven municipalities.

# WORK AND EMPLOYMENT 51%

of approximately 12,300 job positions at the peak of the works have been taken by local labor. The local hiring index of the P4P was 56% in ES and 42% in MG. Local labor means people who live in Anchieta, Guarapari and Piuma in ES and Catas Altas, Ouro Preto, Mariana and Santa Barbara in MG. The P4P hiring represented a growth of approximately 16.2% of total formal employment in this region as compared to the employment data of 2012.

# TAXES R\$ 590 million

in taxes paid at federal, state and local levels.

# **TRAFFIC**

# A fleet of about 800 vehicles

The P4P fleet of vehicles at the peak of the construction works – approximately 800 – represented 0.6% of all licensed vehicles in the seven municipalities affected by the project. Planning of the fleet and transportation routes helped reduce interferences in traffic.

# PROFESSIONAL SKILLS DEVELOPMENT R\$ 5 million

were invested in the training of 1, 400 people in both states, through the Professional Development Program conducted during the project.

# **WAGES**

# Between 2010 and 2012,

a growth of approximately 40% occurred in the average wages, in these municipalities, driven by the P4P and other Company activities.

### **HEALTH**

The impact on the health sector is a reason for concern in the implementation of projects of this magnitude. The indicators showed that the P4P did not burden the health system structure because it gave priority to local labor and implemented a policy of prevention, training and awareness.

# **Only 184 workers**

were referred to the health system of the seven municipalities affected by the project. Considering the population of approximately 304,000 inhabitants of these municipalities, the figure represents 0.06% of the total.

### SOCIO-INSTITUTIONAL INVESTMENT

The P4P Socio-institutional Investment was made voluntarily by Samarco, contributing to the strengthening of the ties among society, public authorities and Company.

Social investment was based on consultation and dialogue with residents of approximately 60 communities of the municipalities in the area of influence of the expansion, with development of proposals and support initiatives. During 2014, 72 projects were developed with focus on education and income generation, built by the communities.

In turn, the institutional investment involved several deliveries of items of equipment to municipalities in the area of direct influence, in Espirito Santo and Minas Gerais, including trucks, dozers, cars, front-end loaders and ambulances, among others.

In all, we voluntarily disbursed more than R \$ 8.6 million in P4P socio-institutional investments, between 2011 and 2014.

### **DELIVERIES IN INFRASTRUCTURE**

Within the scope of the P4P, a number of initiatives of improvement and expansion of infrastructure were conducted by the Company under the Socio-environmental Commitment Statement (TCSA) (see table).

Project/ activity	Investment (R\$)	Description	Current and expected impacts (positive/negative)
Health Unit of Jabaraí	3,725,276.27	Construction of a health unit and auditorium in the district of Jabaraí, in Guarapari (ES), consisting of the main building with 590 m² in a single floor, sidewalk, parking lots, internal and external gardens, walls and entrance gates  Execution: November 2013 to August 2014	Positive Delivery of equipment for public use Expansion of health care for inhabitants of four districts of Guarapari (Fazenda do Campo, Jabaraí, Jardim Santa Rosa and Portal Clube) Trust worthy relashionship with stakeholders Contributing to positive reputation of the Company  Negative Occasional degradation of the construction works due to weather and usage associated to lack o for inappropriate maintenance, with a negative impact on Company's image Charge of maintenance associated to misuse
Renovation of Piuma Hospital	1,654,699.69	Renovation and expansion of the hospital for layout adjustment, increase of beds and conformity with Anvisa standards; construction of laundry, gas center and IT room; new sanitary system, including structure for new water tanks; substitution of roof and addition of gutters; electrical substation and purchase of laundry equipment  Execution: December of 2013 to July of 2014	Positive Adjustment of the hospital structure to serve the patients better Strengthening the bonds of trust with stakeholders Contribution to the positive reputation of the Company  Negative Possible degradation of work because of time and use, associated to the lack of or improper maintenance, impacting negatively on the company's image Obligation for future maintenance and demand for other services not associated with the defined Socio-Environmental Commitment Statement (TCSA)
Community Center of Mãe-Bá	1,011,000	Construction of a community center in Mãe-Ba, the municipality of Anchieta (ES), with building containing auditorium, comfort station, bathrooms, kitchen, deposit, play area, external paving and sidewalk  Execution: from August to	Positive  Delivery of an equipment for public use, considered a priority by the community Promotion of qualification and development courses for the community Strengthening trust with the stakeholders Contribution to positive reputation Company  Negative
		December 2014	<ul> <li>Possible degradation of work because of time and use, coupled with the lack of or improper maintenance, impacting negatively on the image of Company</li> <li>Cobrança de manutenção do espaço associada ao mau uso</li> </ul>
Paving of Porto Grande	646,162.73	Paving of roads in the district of Porto Grande in Guarapari (ES), with the use of PAV blocks produced with sandy tailings from Samarco. Installation of 3000 m <sup>2</sup> of pavement	Positive  • Utility construction of utility for the whole community  • Increase in estate values in the region with attraction of other investments  • Strengthening / maintain the positive reputation of the Company
		Completion: December 2013 to March 2014	Negative • Possible degradation of work because of time and use associated to lack of or improper maintenance, impacting negatively on the company's image • Charging to the maintenance of the paving

# **EMPLOYEES**

With respect for people integrated to our strategy and one of our values, we believe that success in business is only achieved in Samarco with development, quality of life and satisfaction of the internal stakeholders.

In 2014, year of completion of the Fourth Pellet Plant Project, we reached the milestone of 2,969 own employees – a 4% increase, needed to support the expansion of production capacity and challenging in aspects such as integration, qualification and engagement. **GRI G4-10** 

Governed by the five-year plan of the Human Resources General Management, we evolved in 2014 in aspects of professional qualification, induction of new employees, productivity, organizational climate, formation of leaders, and attraction and retention of talents.

Based on data from three studies that govern our actions - Climate, Culture and Reputation - we invest in several process changes, in order to make our actions with the internal stakeholders more fair, responsive and transparent.

The evaluation of our employees regarding their work environment is critical to indicate whether we are on the right path to achieving our goals. So, from 2014 on, the Climate Survey will be conducted on an annual basis. During the year, the survey recorded a favorability level of 79.37% against 81.69% registered in the previous year; 78% of our employees participated in the survey.

The slightly lower favorability is related to the natural challenges of the Company, in a year of increase of rated production capacity and efforts focused on aspects such as labor productivity and cultural integration of new employees. Once again, we noticed a high degree of identification of the people with the Company (89.40%), which means major alignment with our culture.

Productivity remains a major challenge, not only for Samarco but for all Brazilian companies. In 2014, we expanded the vision of our management about the importance of producing more with less resources, coping well with the current challenges of the mining sector.



Employees of Germano unit, in Minas Gerais.

# NUMBER OF EMPLOYEE PER FUNCTIONAL LEVEL

GRI G4-10

	2014		20	13	2012	
	Male	Female	Male	Female	Male	Female
Management	175	8	166	8	154	9
Technical/supervision	1,091	253	1,072	239	941	234
Operational	1,370	72	1,334	80	1,027	71
Trainees	0	0	0	0	73	8
Contractors	3,5	517	3,4	192	3,433	
Interns	65	79	15	10	86	60
Total per gender (excluding contractors)	2,701	412	2,587	337	2,281	1382
Total (excluding contractors)	3,1	113	2,9	924	2,6	663
Total (excluding contractors and trainees)	2,9	069	2,8	399	2,5	517

# **NUMBER OF EMPLOYEES PER REGION**

GRI G4-10

	2014		2013		2012	
	Male	Female	Male	Female	Male	Female
ES	1,137	145	1,121	139	993	144
MG	1,499	188	1,451	188	1,202	178
Total per gender	2,636	333	2,572	327	2,195	322
Total (excluding contractors and interns)	2,9	69	2,8	99	2,5	517

# **NUMBER OF EMPLOYEES PER CONTRACT TYPE**

GRI G4-10

	2014		20	2013		2012	
	Male	Female	Male	Female	Male	Female	
Definite term	0	6	4	3	5	4	
Indefinite term	2,636	327	2,568	324	2,190	318	
Total per gender	2,636	333	2,572	327	2,195	322	
Total	2,9	69	2,8	99	2,5	517	



# Training and awareness programs within the Company have helped us maximize best practices.

# LOCAL USE OF LABOR

GRI G4-EC6

We give priority to the generation of employment and income in neighboring communities, and for this reason we are committed to valuing the local workforce in the hiring processes. We take this assumption as an indicator of the Human Resources area.

During the year, 248 people were hired, 59% (148) consisting of professionals residing in our area of direct influence. To calculate this indicator, we consider hiring made in the year among the residents of Anchieta, Guarapari and Piuma, in Espírito Santo, and Mariana, Ouro Preto, Santa Barbara, Catas Altas and Barão de Cocais, in Minas Gerais.

Taking into account those figures from the 172 technical-operational professionals hired in the year, 133 came from those communities, corresponding to 77%.

# **CORPORATE EDUCATION**

The corporate education process, referred to as Saber Samarco offers development actions in order to contribute to the implementation of the organizational strategy, with professionals better qualified to perform their activities and as a result increase our productivity. In 2014, we invested approximately R\$ 9 million in schools of Identity, Excellence, Technology, Sustainability and Leadership (above the R\$ 6.5 million of 2013). In all, 176,474.88 hours of qualification.

Our efforts were concentrated on the schools of Leadership and Excellence, as they represent some of our strategic priorities, such as productivity and leadership by example, described in the Strategy Map and Sustainability Model. Specific programs were offered to support business competitiveness and develop the current and potential leaders of the Company.

# TRAINING PER FUNCTIONAL CATEGORY

**GRI G4-LA9** 

Hours per employee (MH)

	2014	2013	2012
Management	45.75	62.9	59.42
Technical	34.55	46.2	58.87
Operational	116.03	100.5	62.49
Interns	83.13	63.9	2.12
Young Apprentice	1.43	67.4	2.13
Total	281.16	341.0	182.92

# HIGHLIGHT ON LEADERSHIP

In 2014, the definition of development actions were based on the results of the Leadership Development Matrix, which outlines development routes according to the combination of a number of factors (performance, climate, succession, critical position and time in the position, for example). The portfolio was prepared taking into account more than 55% of the formal leadership of the Company. Moreover, behavioral aspects were a major concern in this process, in order to work in the leadership attitudes in compliance with company values, with transparency and coherence of speech, to build trust in the relations and exercise leadership in scenarios of changes.

In 2014, two new programs were implemented: Connecting People and Results (new format, oriented to team leaders) and the Program of Integration of New Managers. During the year, the leadership coaching process was also implemented for the Executive Board, a specific development plan was designed with qualifications related to the challenges and opportunities mapped.

90%

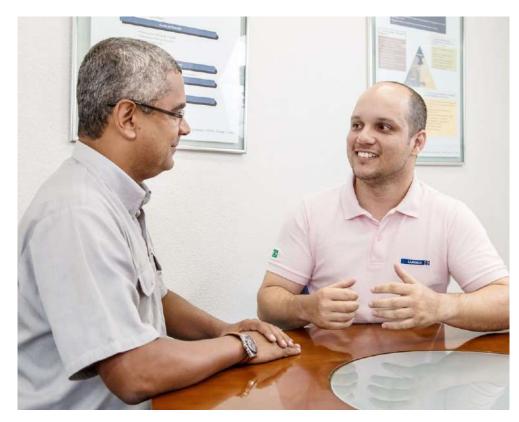
was the metrics for internal use of leadership (vacancies filled internally by a person who was mapped as successor with immediate readiness or within two years)

# CAREER AND PERFORMANCE MANAGEMENT

One of the sensitive items mapped in our Climate Survey, career development management was one of the priorities worked on by the Human Resources area during 2014. We reviewed the performance management process, providing it with a more systemic nature, which allows analyses of individual deliveries, behavior and adhesion of employees to our values.

During the year, we strengthened the role of the Succession Committee and the Personnel Committee, responsible for the review of promotions, critical functions for fulfillment of the company strategy, and qualification and development of our professionals. The internal promotions contemplated 387 employees in 2014 (13.4% of the staff), reflecting the seventh cycle of performance appraisal.

In 2014, 30 committees discussed the leadership potential of the employees, evaluating possible successors, which resulted in the Samarco map of succession. At management level, from the eight opportunities offered by the Company, seven were filled internally, reinforcing our commitment to build solid careers for our employees.



Annualy, Samarco performs the Development Evaluation Cycle.

# **DISMISSAL RATE**

GRI G4-LA1

In %

	2014	2013	2012
	Rate	Rate	Rate
Male	5%	4%	31%
Female	8%	7%	7%
Age below 30	4%	1%	6%
Age between 30 and 50	5%	2%	27%
Age over 50	15%	1%	5%
ES	6%	2%	17%
MG	5%	2%	21%

Total

	2014	2013	2012
	Total	Total	Total
Male	129	101	91
Female	26	24	19
Age below 30	29	32	18
Age between 30 and 50	89	63	79
Age over 50	37	30	13
ES	76	53	49
MG	79	72	61

# **HIRING RATE**

GRI G4-LA1

In %

111 70			
	2014	2013	2012
	Rate	Rate	Rate
Male	8%	17%	N/D
Female	8%	1%	N/D
Age below 30	14%	11%	N/D
Age between 30 and 50	6%	7%	N/D
Age over 50	0%	0%	N/D
ES	8%	6%	N/D
MG	8%	12%	N/D

Total

Ισιαι			
	2014	2013	2012
	Total	Total	Total
Male	204	484	219
Female	28	30	35
Age below 30	106	320	18
Age between 30 and 50	125	192	79
Age over 50	1	2	13
ES	108	177	49
MG	124	337	61

# **HEALTH AND SAFETY**

For Samarco, valuing life is a non-negotiable requirement. As a result of our respect for people, we have the Health and Safety Management System in place, which allows the identification of risks, implementation of control measures, mapping of improvements and promotion of safe behavior among employees and contractors, aiming at the prevention of occupational accidents and diseases.

The requirements of international standard OHSAS 18001, the best practices of our sector and the guidelines of our shareholders are the main references for development of our system, based on the pillars of Leadership, Behavior and System.

Affected by the ramp-up process of the Fourth Pellet Plant Project and by the higher turnover of employees and contractors, the year of 2014 was particularly challenging for Samarco. We ended the year with an increase in the total rate of reported accidents (with lost time + without lost of time), reaching 1.27 and exceeding the target set by Samarco (under 1.00). Returning to levels below 1.00 is a challenge to which we have already started to respond, by reviewing the process and improvements in all stages of production.

Despite our efforts to prevent accidents and encourage safe behavior in the Company, we recorded a fatality, with a contractor employee who was helping in the move from the old to the new mobile equipment workshop, at the Minas Gerais unit.

The combination of engaged leaderships, safe behavior culture in all activities and risk control systems is the key to improving our results. The theme is present in top management with the Health and Safety Central Committee, consisting of the Executive Board, the Occupational Health and Safety area, and other general managers. Moreover, operational committees are in place, as well as events and projects focused on the control of external facts.

# **SAFETY INDICATORS – OPERATIONS**

(Samarco and contractors)

	2014	2013	2012
LTI accident rate*	0.42	0.29	0.14
Total accident rate recorded (LTI + NLTI**)	1.27	0.80	0.65
Deaths	1	0	0

<sup>\*</sup> Accident leading to worker's absence.

<sup>\*\*</sup> Personal accident in which the injury does not prevent the worker from returning to work on the day of the accident, provided there is no disabling injury.



# **CRITICAL RISKS**

Concerned with the need to identify more critical positions, activities and processes regarding health and safety aspects, for five years we've been analyzing our business and classifying all the potential risks of diseases and accidents to which our employees and contractors are exposed, according to five levels: negligible, tolerable, moderate, substantial and intolerable.

In this group, we mapped 18 top priority safety risks and six top priority health risks, and defined a management program. To assess their materiality and relevance, we have our own methodology, which calculates the Samarco Safety Risk Factor and Health Risk Factor, which are indicators applied to all activities, in order to reduce substantial and intolerable risks.

In 2014, we invested approximately R \$ 10.5 million for mitigation and control of occupational safety risks and expect to invest additional R \$ 26.2 million by 2025, to reduce the Health Risk Factor from the current 4.94 to 1.00, thus ensuring control of the environmental agents of the production process and the welfare of our employees. Our goal is to achieve 10% of rate annual reduction; in 2014, the decrease was 9.17%, with a risk factor of 2.97.

The main investment was made for control of man-machine interaction risks. Changes in traffic, procedures, mobility and training of employees were implemented, reducing by 47% this risk factor in just one year. In Ubu, 27 actions were conducted; and 45 in Germano and Matipó (where the pipeline pump stations are located). Other improvements are waiting for licenses and regulatory aspects to be implemented, such as the construction of the interchange of the main entrance in Ubu and the external parking lot of the dam in Germano.

# **HEALTHY AND SAFE BEHAVIOR**

In 2014, Samarco conducted some initiatives for the purpose of achieving an even higher level of development in health and safety. The company, for example, launched the Responsibility Management program, which focuses on all human aspects of health and safety, bringing to the table matters related to risk perception, occupational health, climate and culture, applying to employees and contractors.

The Company also set forth the practice of health and safety routines, such as scheduled inspections, behavioral observations, monthly meetings of general managers, periodic meetings for incident assessment, etc. With this routine, the presence of the leaders in the field was expanded, focusing on observing and talking to employees about safe behavior.

Three other major programs encourage this practice in the Company, as described below.

### SAFE WORK OBSERVATION PROGRAM (POTS)

The program encourages employees, in a voluntary and mutual manner, to monitor the performance of routine activities to reinforce behaviors that prevents accidents.

### SPONSOR PROGRAM

The purpose of the program is to encourage senior professionals to voluntarily act as mentors to newly hired employees, disseminating concepts and best practices.

PROGRAMS 'DISSEMINATING THE VALUE OF SAFETY TO CONTRACTORS' AND 'ORGANIZING OCCUPATION HEALTH AND SAFETY MANAGEMENT'

The programs are oriented to contractors, i.e. helping them in the development, implementation and improvements of health and safety management and control systems. The program 'Organizing Occupational Health and Safety Management' is focused on companies interested in qualifying to provide services to Samarco.



Each year we have invested in initiatives and process improvements to further reduce our injury rates.

# **GOOD HEALTH RESULTS**

With the Occupational Health Management (GSO), we have programs, guidelines and goals that allow improving the quality of life of employees, within and outside the work environment. In 2014, we achieved a reduction of our Health Risk Factor from 5.09 to 4.94. The goal for 2014 was 5.01.

The positive result is a reflection of the monitoring and control actions and improvements in Company areas, with an emphasis on occupational hygiene, ergonomics - with the consolidation of ergonomic action plans in the areas - occupational health, social services, and work-related psychology.



One of the initiatives to contribute to the health of our employees was Samarco's Soccer Cup.

# **GROWING WITH HEALTH AND SAFETY**

We evaluate our health and safety results in the Fourth Pellet Plant Project (P4P) positively. During the works, we monitor the rate of accidents, also covering no lost time, restricted work and medical treatment cases, and arrived at a rate of 1.06. In the P4P, we delivered 1.4 million hours of training on health and safety. We also recorded 63.1 million man-hours worked, without reporting a fatal accident.

# **SUPPLIERS**

By working together with our suppliers, we can boost the development of the areas where we operate and face challenging economic scenarios in a sound and efficient manner. With our own guidelines to foster local economies, we value companies from neighboring regions and try to engage them in the best practices, focused on safety, competitiveness, productivity, efficiency and socioenvironmental responsibility.

We ended 2014 with 6,900 suppliers in our database, a volume below the 7,300 partners of 2013, due to the completion of the Fourth Pellet Plant Project (P4P) and the strategy to optimize the procurement processes. Suppliers are divided among three categories: Services and Materials (indirect); Projects (Capex); and Inputs (direct). GRI G4-12

In 2014, we conducted a survey of internal and external initiatives and established criteria to the increase the suppliers' productivity, with an upgrade of our systems. Also, we renegotiated our long-term contract base, which comprises between 70% and 80% of the categories of business partners, in order to reduce the costs of inputs, services and equipment.

Another highlight of the year was the creation of governance of services contracted by Procurement, with standard procedures that organize processes, reduce costs and guide the contracting and management of supplies. Monthly committees were also created with a number of managements to evaluate and discuss the procurement practices.

Out of the total number of suppliers, around 40% are companies belonging to the direct area of influence of Samarco, i.e. the cities distributed among Germano (MG), Ubu (ES) and the pipelines, and the municipalities of the Metropolitan Region of Vitória (ES).

Samarco's operations demand the purchase of materials, equipment and inputs, such as natural gas, limestone, coal and bentonite, for use in directly in operations. Based on the Procurement Strategic Matrix (ECM), we manage the supply chain, taking into consideration three criteria of relevance in the relationship with suppliers: disbursement, market complexity and business impact.

Annually, our suppliers are evaluated on issues such as supply technique and quality, risks (financial, labor), health, socio-corporate responsibility and sustainability, in addition to human rights aspects (see more in Ethical Behavior, p. 20).

# **ENGAGEMENT**

In 2014, we maintained the Supplier Development Program (Prodfor) and the Supplier Development Plan (PDF), two actions that allow us to engage in active and direct management and assessment of company database. The actions comprise companies from Espírito Santo on the axes of inputs, materials, capital projects and services. In addition to disseminating the culture of productivity and innovation, themes like HSEQ management are addressed.

# **MEETING OF SUPPLIERS**

Held every two years, the event brings together companies that account for over 80% of Samarco supply chain. The goal is to share with suppliers our strategy, current and future challenges and Samarco socio-environmental and business guidelines. The next meeting is scheduled for 2015.



2014 Samarco Excellence Award, Belo Horizonte, Minas Gerais.

# **ENVIRONMENT**

Responsible use of natural resources, efficiency projects and new technologies are the mechanisms we use to reduce our environmental impacts















In addition to good relationship with society, Samarco believes that its license to operate is related to practices developed to mitigate business impacts on the environment.

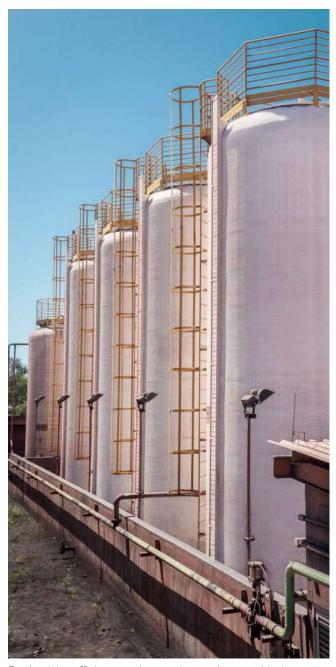
Investments in technologies, process changes and biodiversity conservation actions, among others, ensure our competitiveness, allow the preservation of natural resources essential to the environment, reduce risks that can affect business continuity, and strengthen our reputation, in direct connection with the long-term strategy.

In 2014, our environmental investments focused on topics such as waste, tailings, water and emissions of greenhouse gases and particulates. In all, R\$ 88.3 million were invested in improvements, equipment and programs, except for resources associated with the Fourth Pellet Plant Project (P4P), which totaled R\$ 31.5 million.

Another important achievement was the inclusion of environmental criteria in the Company variable compensation model, covering all employees, in order to encourage responsible practices and engage the internal stakeholders in relation to sustainability. Until last year, the pillars were cost, production and safety.

With the introduction of the 'environment' pillar, we developed two major specific indicators - related to performance and compliance - to map the activities that may impact the bonus structure. As a result of the change in variable compensation, Samarco's internal Environmental Education Program will address new themes as of 2015.

In 2014, we also advanced in methodologies to assess certain risks and impacts of our activities, as dam flow rates, shortage of water and power, and air emissions.



Productivity, efficiency and expansion are key to achieving our Vision 2022.

# SUSTAINABLE USE OF WATER

The mining activity depends on the use of water resources for its implementation. For this reason, the matter is contained in the Strategy Map as a decisive aspect to achieve the 2022Vision, with actions focused on three axes: to make sure the quality of the water returned to the waterways is appropriate; to reduce the need for the intake of new water; and to expand reuse and recirculation. Those are the challenges we will pursue to achieve excellence and contribute to a rational and sustainable use of water in the states where we operate.

Our water management strategy is governed by the Master Plan for Water Resources (PDRHid), revised in 2013 already focused on new water reduction and a more efficient production process. In 2014, we accelerated some actions of the document. One of them is the Water Resources Emergency Plan, which will present Samarco guidelines in case of rationing. This initiative will be completed in 2015 and provides for specific actions for short-, medium- and long-terms.

Completed in 2014, the structure of the dynamic water balance, with application of equipment in unmonitored points, focusing on Germano unit (MG), where the Company's new water is collected. Thus, we are able to monitor flowrate measurement data at the intake and consumption points. In Ubu, the commissioning process of the new point of water recirculation in the south ditch was completed, as well as the start-up of the North Dam Treatment Plant, which treats water before overflowing to the Māe-Bá lagoon.

Currently, Samarco has grants for surface water intake in four different waterways in Minas Gerais - the Piracicaba, Matipó, Gualaxo do Norte and Santa Barbara rivers - in addition to the Santarém dam, totaling approximately 4,900 m³/h. This amount of water is in line with the volume the water basin is able to bear, causing no significant impacts on the flow of the rivers used.

As one of the practices to reduce our water footprint, we do not capture new water to carry mineral resources to Espírito Santo - the water used in the concentration process is reused in the production and transportation of ore slurry by the pipelines.

Samarco industrial plants have water treatment and recirculation plants, which allows the reuse of approximately 90% of the resource. The remaining

resources are treated according to the legal standards and requirements, and discharged in the Mãe-Bá lagoon, in Anchieta (ES), or in the Santarem stream, near the Germano Unit (MG). It bears emphasizing that Samarco does not need to collect water in Espírito Santo; water from the pipelines is used for the industrial process and water from the wells to supply of restaurants, cafeterias and restrooms.

In 2014, approximately 186 million cubic meters of water were reused by the Company. During 2014, our total use of new water was 29,560,840.67 m³, 74% above the recorded in the previous year. The growth is explained by having Santarém as a new water source in the productive process, with part of captured resource used as new water and another part as recirculated water. Moreover, the start of operation of the third concentrator slightly increased the consumption of water at the beginning of the P4P, in March and April. **GRI G4-EN8, G4-22, G4-23** 

The value of surface water increased significantly with the intake from Brumal (Santa Barbara / MG), currently the largest source of new water of the Company, with capacity of  $2,050 \text{ m}^3$  / h, but with average intake of approximately  $1,400 \text{ m}^3$ / h in 2014.

In recent years, Samarco intensified its presence in forums of discussion on water resources, with representatives in the committees of the water basins of the rivers Doce, Piracicaba and Piranga, Minas Gerais, and Benavente and Itapemirim, Espírito Santo. By participating more actively in the discussions on water resources management, the Company expects to contribute to the formulation of public policies, which regulate water industrial use and intake practices.



Benevente river, in Alfredo Chaves, ES.

# TOTAL OF INTAKE WATER PER SOURCE

### **GRI G4-EN8**

 $(m^3)$ 

	2014	2013	2012
Surface water (rivers, lakes, wet areas, oceans)	22,833,866	11,154,153.84	14,321,640.60
Underground water	6,726,975	5,814,007	2,558,519
Total	29,560,841	16,968,160.84	16,880,159.60

# LIST OF WATER INTAKE SOURCES

### **GRI G4-EN8, G4-23**

 $(m^3)$ 

(1117)			
	2014	2013	2012
Piracicaba River (MG)	2,834,125	3,653,784	4,109,626
Matipó River (MG)	1,335,193	592,737	620,452
Gualaxo River (MG)	7,465,712	6,907,633	9,591,563
Poços Alegria (MG)	6,726,975	5,814,007	2,558,519
Brumal River (MG)	8,680,039	-	-
Santarém River (MG)	2,518,798	-	-
Total	29,560,841	16,968,161	16,880,160
m³/TMSc²	1.12	0.76	0.75

# POSITIVE PROGRAM GRI G4-16

To bring together ideas and attitudes that promote the rational use of water resources, Samarco launched in early 2015 the Positive Water Program, in partnership with public authorities and institutions in Minas Gerais and Espirito Santo, to develop environmental, social and educational actions.

## **LEARN MORE**

about the program at www.samarco.com/agua







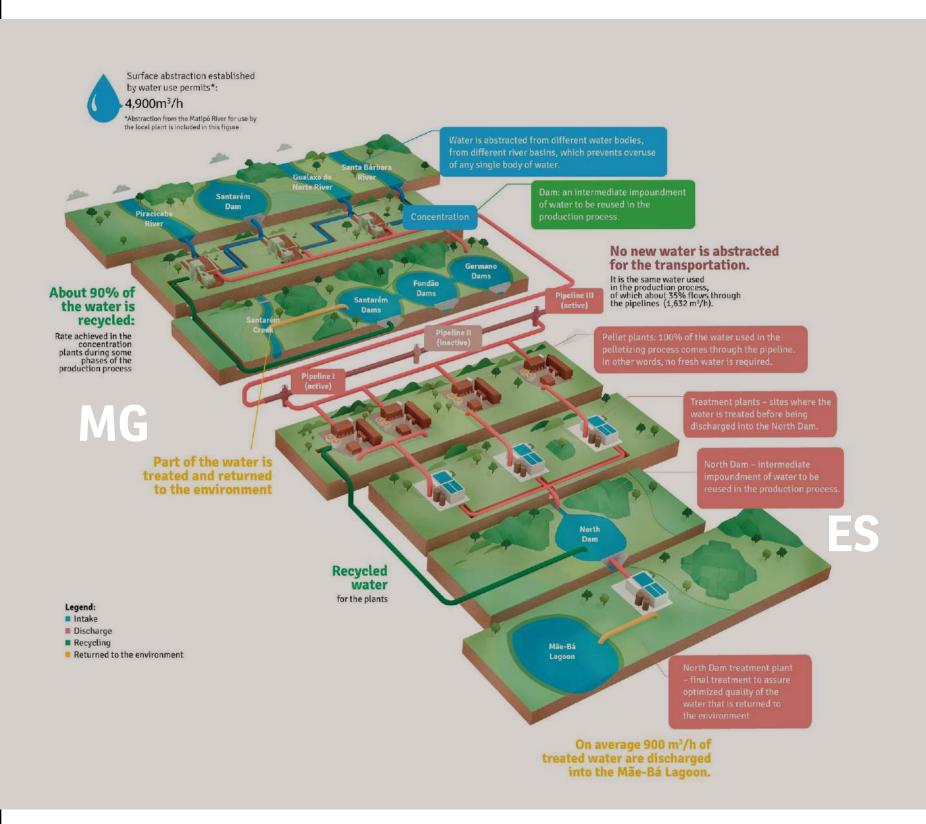
# **RECYCLED AND REUSED WATER**

**GRI G4-EN10** 

	20141	2013	2012
Total volume of recycled/ reused water (m³)	186,061,148	154,256,000	158,882,000
Recirculation rate (%)	86;29	90;10	90;41

<sup>&</sup>lt;sup>1</sup>Assumptions: use of Santarém balance as part of new water (2,518,798 m³/year) and recirculated (22,666,556.87 m³/year).

# **SAMARCO WATER BALANCE**



# REDUCTION OF IMPACT GRIG4-EN27

To mitigate its impact on water consumption, Samarco, within the Water Resources Management Program, highlights two initiatives: water balance project in Germano (focused on the implementation of flowrate measurement equipment in the main Company water flows) and the Lean Six Sigma project to reduce the use of new water in Concentrator 1. The Lean Six Sigma project has the capacity to reduce the water footprint indicator by 8.4%.

### **WATER SCENARIO IN BRAZIL**

In 2014, a water crisis spread through the states of Rio de Janeiro, Minas Gerais, São Paulo and Espírito Santo. Due to multifactorial reasons, including low rainfall in commonly rainy periods (before the months of April and May), the question is still the subject of analyses by researchers, but points to an uncertain future in relation to the resource, resulting from population and industrial pressure in the Southeast.

Possible shortage, in addition to affecting the consumption of water by the population, can also affect power generation, as our energy matrix is based on hydroelectricity. In this context, São Paulo is the state with the highest sensitivity, while Minas Gerais and Espírito Santo have started 2015 with considerable shortage of rain.

The concern is not only in Brazil. The United Nations (UN) believes that water and energy are among the most imminent global challenges. The agency predicts that by 2030, global population will need 35% more food, 40% more water and 50% more energy, going beyond the current capabilities of production and supply.



Mãe-Bá lagoon, in Anchieta, Espírito Santo.

# **SAMARCO WATER LICENSES**

 $(m^3/h)$ 

License	Volume
Piracicaba River	340
Gualaxo do Norte River	1,350
Santa Bárbara River	2,048
Matipó River	233
Santarém Dam	1,001

# WATER RESOURCES SIGNIFICANTLY AFFECTED BY WATER INTAKE 1

	(m³)	Representation among all Samarco sources
Poços Alegria	6,726,975	23%
Piracicaba	2,834,125	10%
Gualaxo	7,465,712	25%
Brumal	8,680,039	29%
Matipó	1,335,193	5%
Santarém	2,518,798	9%

<sup>&</sup>lt;sup>1</sup>None of these sources are within the protected area or with biodiversity value. However, all of them are important to local communities

# **USE VS. CONSUMPTION**

While use refers to water used in the process and subsequently returned to the waterways, as the case of most of the water used by Samarco, consumption means the percentage of water to be effectively consumed, with no possibility of immediate reuse, or which is lost in the process. For example, in the irrigation of crops, water is consumed, not used. In 2014, we made an effort to demystify both actions and clarify the role of water resources in the Samarco production process, both in terms of compliance with the legislation- we captured less than the percentage allowed by law - and in our internal initiatives. Based on data survey, we proved that our intake does not affect the neighboring cities of Germano unit (MG).



Jardim Botânico, one of the springs that will be recovered by the Positive Program.

# **WASTEWATER**

We dispose of wastewater on locations near the operations of our industrial units. In Germano (MG), the process is conducted in Santarém, João Manoel, Macacos and Matipó creeks; in Ubu, discarded wastewater is overflown from the North Dam to Mãe-Bá Lagoon, in Anchieta (ES).

We monitor the quality of water discharged into creeks in Minas Gerais and also in the Piracicaba river, considering a number of aspects (evaluation of physical, chemical and biological features, phyto and zooplankton parameters, ichthyofauna, etc.). In Ubu, an analysis of physical, chemical and biological aspects is conducted in Māe-Bá lagoon, considering 48 parameters.

Also, we monitor the local diversity and ecology of fish. We have eight monitoring points in the lagoon, carrying out 3000 tests every year. In 2013, we started the implementation of the Programs of the Master Plan of Coastal Lagoons of the municipalities of Anchieta and Guarapari. In 2014, management of exotic species was conducted, thus favoring the quality of the lagoons. Moreover, water quality monitoring was conducted in

the Ubu lagoon and two campaigns were developed for awareness on environmental education. Moving forward to 2015, the planting of native species is projected for the Anchieta and Guarapari lagoons.

The generation of wastewater in Germano totaled 6,324,720 m³. Due to technical problems on the meter, the data of 2012 and 2013 was not reported. In 2014, we installed a new measurement technology to check the shed flowrates of Santarém Dam. In Ubu, the effluent reached 6,140,776 m³. The increase in the indicator is related to the start-up of the P4P. In 2015, Ubu figures are expected to increase due to the start-up of the third line of the pipeline.

In 2014, we delivered the Industrial Wastewater Treatment Plant (Etei) of the North Dam, unit operating in series, .i.e., it receives the effluent already treated at other plants for another intervention. The goal is to ensure the maximum quality of the effluent, which will go to the Mãe-Bá lagoon. This action is linked to the environmental licensing requirements of the Fourth Pellet Plant Project (P4P), having received R\$ 6 million in investments.

# TOTAL DISPOSAL OF WATER, LISTED BY QUALITY AND DESTINATION 1

2012	Volume (m³)	Treatment	Water quality and treatment method	Destination
North Dam (Ubu)	3,669,896.44 m <sup>3</sup>	Physical-chemi- cal treatment	Class 2 according to Conama 357/2005	Mãe-Bá Lagoon
2013	Volume (m³)	Treatment	Water quality and treatment method	Destinação
North Dam (Ubu)	4,437,541.44 m <sup>3</sup>	Physical-chemi- cal treatment	Class 2 according to Conama 357/2005	Mãe-Bá Lagoon
2014	Volume (m³)	Treatment	Water quality and treatment method	Destinação
North Dam (Ubu)	6,140,776 m <sup>3</sup>	Physical-chemi- cal treatment	Class 2 according to Conama 357/2005	Mãe-Bá Lagoon
Santarém Dam (Germano) <sup>2</sup>	6,324,720 m <sup>3</sup>	Physical-chemi- cal treatment	Class 2 according to Copam n.º 01, from May 5, 2008	Santarém Creek

<sup>&</sup>lt;sup>1</sup> Water is not reused by other companies.

 $<sup>^{2}</sup>$ No measurement at the Santarém dam (Germano) in 2012 and 2013. In 2014, the minimum flowrate was 722 m $^{3}$  / h at the dam overflow.

# **CLIMATE AND ENERGY**

With the start-up of the P4P, we ended 2014 with a total consumption of 8,769,528 GJ. The volume is 7.6% lower than estimated for the year, due to late ramp-up of the P4P and several efficiency measures. During the year, Samarco energy intensity rate was 341.93 GJ /tms. GRI G4-EN5

One of the alternatives studied by Samarco is seeking other technologies for generation of clean energy, considering we already operate with two hydropower plants. These plants provided 14.5% of the Company's annual consumption. The units are the hydropower plant of Muniz Freire in Espírito Santo, and participation in the consortium of the Hydropower Plant of Guilman-Amorim, in Minas Gerais. During 2014, the generation of these units was impaired by low rainfall, below the estimated for the year.

In 2014, we advanced studies for generation of wind power in the vicinity of our units in Espírito Santo. This project is under review at the company, to verify the technical feasibility of installing wind turbines. Such assessment takes approximately three years.

Also in self production, Samarco continued the cogeneration tests with burning of civil construction wood pallets (more on strategic focus, page 30).

# **ELECTRICAL ENERGY CONSUMPTION AND SELF PRODUCTION**

**GRI G4-EN3, G4-EN4** 

(GI)

	2014	2013	2012
Annual consumption	8,769,528	7,147,529	7,181,431
Purchased from third parties	9,348,293	6,471,002	6,292,400
Generated by the Company	1,173,866	1,347,144	1,422,713
Energy sold	1,902,365	657,275	514,325



Positive business performance has been the result of financial management with a focus on balancing investment, production costs and profit margins.

<sup>&</sup>lt;sup>1</sup>Total consumption of electricity in the Company/ Samarco production (in dmt).

# **GHG EMISSIONS**

GRI G4-EN15, G4-EN16, G4-EN17, G4-EN18

Since 2007, we have conducted our inventory of greenhouse gas (GHG) emissions, based on the methodology of the GHG Protocol. In 2014, we recorded an increase of 19.7% in emissions compared with the previous year. Emissions from scopes 1, 2 and 3 were up 24.6%, 77.8% and 19.1%, respectively. This increase in GHG emissions was expected, due to the start-up of the fourth pelletizing plant.

The intensity rate of greenhouse gas emissions reached 92 kg  $CO_2e$  /t of pellets and fines produced (gases included in the calculation:  $CO_2$ ,  $CH_4$ ,  $N_2O$ , HFCs, PFCs, SF<sub>6</sub> and NF<sub>2</sub>).

In 2012, Samarco inventory included scope 3 - Indirect emissions - according to the new methodology of the GHG Protocol, which includes estimated emissions for the pellet transported and processed at the client. Scopes 1 and 2 refer to emissions under the responsibility of Samarco through energy self production and purchase of electricity. In 2014, the emission inventory received the Gold Seal, attesting to the quality and range of information.

Samarco also evaluates the impacts of its emissions through periodic monitoring of smoke emitted by vehicles and equipment of its fleet. In case of approval of the equipment/vehicle, Samarco grants a red seal to the equipment/vehicle, so that it may circulate in Company areas. In case of no approval, the equipment/vehicle is submitted to maintenance. At the same time, biannual monitoring is conducted, with the use of opacimeter in 20% of the fleet, randomly chosen for comparison with the results presented by the areas. **GRI G4-EN30** 

Greenhouse gas emissions from the vehicles of contractors retained to transport employees are also monitored and submitted annually in reports under the standard GHG Protocol Brazil. **GRI G4-EN30** 

# **EMISSIONS OF GREENHOUSE GASES**

 $(tCO_2e)^1$ 

	2014	2013	2012
Scope 1	2,033,558	1,712,180	1,743,577
Scope 2	319,264	154,731	101,126
Scope 3	31,823,456	28,294,018	27,178,806
Total	34,176,278	30,160,928	29,023,509

Note: the greenhouse gas emission values were reviewed after external audit for GHG Protocol certificate.

# **GASES INCLUDED IN THE CALCULATION**

	Global warming potential rate (or GWP source)
Carbon dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	25
Nitrous oxide (N <sub>2</sub> O)	298
Hydrofluorcarbons (HFCs)	3 - 14,800
Perfluorcarbons (PFCs)	6,500 - 17,700
Sulphur hexafluoride (SF <sub>6</sub> )	22,800
Nitrogen-trichloride (NF <sub>3</sub> )	17,200

# P4P: FIRST CARBON NEUTRAL PROJECT IN BRAZIL



The balance of greenhouse gas emissions during the construction phase of the Fourth Pellet Plant Project was equal to or lower than zero. Offset measures were implemented, such as planting of rubber trees and native species of the Atlantic Forest and the rehabilitation of protected areas with total investment of R\$ 1.9 million.

# **AIR EMISSIONS**

In Samarco, the emission of particulates is associated primarily to transport processes and storage of pellets at Ubu Unit (ES). In 2013, we completed important deliveries in control of particulates, such as the installation of Wind Fence and electrostatic precipitators in addition to the processes of the pelletizing plants 1 and 2. In 2014, we conducted a study to assess the efficiency of the Wind Fence, attesting that the technology has a 76% control efficiency – above the initial projection of 54%. Another major delivery was the expansion and upgrade of the Automatic Air Quality Monitoring Network in Ubu region.

In 2014, after the performance of those actions, Samarco identified opportunities for refining air control, with secondary level improvements. A group of engineers is developing sprinkler and control solutions, which should improve Company indicators in this regard. This work will be continued in 2015.

In 2009, Samarco voluntarily entered into the Environmental Commitment Statement (TCA) with the Public Attorney's Office of the State of Espírito Santo (MPES), with technical intervention of the State Institute for the Environment and Water Resources (IEMA) and with participation of civil society representatives.

The total investment of the TCA was more than R\$ 250 million, covering seven actions that improved the control and reduction of emissions of particulates at the Ubu unit, having the Wind Fence as the main delivery (R\$ 93 million).

# NO<sub>X</sub>, SO<sub>X</sub> AND OTHER AIR EMISSIONS GRI G4-EN21

(tons

	2014	2013	2012
NO <sub>X</sub>	13,154	6,998	13,503
SO <sub>X</sub>	11,605	3,314	2,986
Particulate	3,047	1,433	1,798

### **LEARN MORE**

**Wind Fences** are metal barriers that act as fences, to prevent dispersion of particulate matter stored outdoors in iron ore stockyards



Stock piles in Ubu, Espírito Santo.

# **WASTE AND TAILINGS**

In Samarco, all tailings (sandy materials and slimes) generated in the iron ore beneficiation stage are stored in a system composed of the Germano and Fundão dams and stockpile in the Germano pit, at the Germano unit (MG). Water from this process is treated in the Industrial Wastewater Treatment Plants and stored in the Santarém dam, where part is pumped for reuse in the process.

Waste is discarded in accordance with safety procedures and environmental laws along the waste piles João Manoel and Alegria Sul.

The analysis and control of risks are carried out by the methodology Failure Modes and Effects Analysis (FMEA), which assesses the potential of occurrences and failures in dams and potential consequences on the health and safety of people and the environment.

In 2014, the generation of tailing reached 21.978 million tons, between sandy materials and slimes. Waste mass moved to release ore as mining activities advance recorded 5,988,493 natural metric tons in 2014.

The main document governing the issue is the Tailings Disposal Plan (RDP), which provides guidelines to support us until the process of depletion of ore reserves.

From the perspective of safety of our operations, we have the Emergency Action Plan (PAE) of dams, which addresses the operation of the tailings disposal structures and possible malfunctions or emergencies.

Based on this document that meets the legal requirements on dam management, in 2014 we implemented a total of 1,356 hours of training with employees directly or indirectly involved in the activities.

In 2014, a coffer dam system was also implemented in the Santarem Dam to increase the ability to store water for reuse. At the same time, the water resources program is developing several projects aimed at increasing efficiency in water use.

### **REUSE OF WASTE**

Samarco created paving blocks from waste to pave streets of a district in Guarapari, as part of the Environmental Commitment Statement (TCSA) of the P4P. Result of the studies from the General Management of Technology and Eco-efficiency, the material has the same characteristics as conventional blocks and meets all the requirements of the Brazilian Association of Technical Standards (ABNT) (read more in strategic focuses, p. 30).

Another advantage is that the interlocking blocks, used in paving the district, allow the runoff of rainwater, reducing the formation of puddles. The work of paving the Porto Grande district began in December 2013 and was delivered in 2014, with an investment of R\$ 8 million.



Porto Grande's community received the paving with the interlocking blocks made out of waste.

### **LEARN MORE**

**Tailings** is the unused material remaining after processing the ore, stored in dams or piles

**Waste** is the material surrounding the ore and discarded or removed in the mining process while still in the mine. This material can also be allocated in the mine itself, arranged in piles or used for earthmoving.

# **NON-MINERAL WASTE**

In 2014, the non-recyclable household waste allocation ratio increased due to a greater flow of people in the company as a result of P4P operations.

Actions are governed by the Corporate Plan for Solid Waste Management, which enables better management of generation and disposal of waste in the Company. Among the good practices, the oil generated in the oil-water separators is forwarded to recycling; permanent training of the workforce responsible for waste management and employees of the Company, through the Environmental Education Program (PEA); and projects are developed considering non-generation, reduction, reuse, recycling, treatment and disposal of solid waste. **GRI G4-EN27** 

Initiatives created from the use of Lean Six Sigma tool were also maintained, aimed at reducing costs and management improvements. The purpose of the Company is to reuse by-products generated in its production phases.

# **BIODIVERSITY**

Due to its presence in all regions of high importance to Brazilian biodiversity (Atlantic Forest biome), Samarco invests in conservation of the ecosystem, rehabilitation of degraded areas and the balance of ecosystem services. By the end of 2014, we advanced in the development of the Biodiversity Master Plan (PDB), which will indicate the Company's strategic guidelines in relation to environmental management.

We carried out a survey of the best practices in biodiversity developed globally to determine the actions to be implemented. The plan will be finalized in the first quarter of 2015.

In order to reduce our negative impacts, we maintained a number of initiatives and projects. In Minas Gerais, the focus is attending the suppression of forest vegetation, which reduces the species of flora and causes loss or disturbance of habitats for wildlife. In Espírito Santo, our most relevant themes are the ichthyofauna and the quality of marine waters and coastal lagoons, in Ubu, in addition to the Pardo River in Muniz Freire. Mãe-Bá lagoon, with 9 million cubic meters, is a receiving body of effluents that continually shed from the North Dam Treatment Plant, and is not considered a protected area. **GRI G4-EN26** 

Among the projects currently executed, the highlights are described below.

- Fishing Inventory Support Program in Māe-Bá
   Lagoon: accounts for the release of 250,000 fishes
   since the project was started in 2009, in addition to
   comprising actions of environmental education, water
   quality monitoring and ichthyofauna.
- Chelonian Monitoring Program (ES): contributes to the conservation of sea turtles in a partnership with the Institute of Marine Preservation and Conservation (IPCMar) comprising actions in the port area of Anchieta. As a result of the local lighting control actions, from September 2014 to March 2015, the number of nests in the region was 92.
- Eco-efficiency in the management of port operations contributing to the Conservation of Marine Biodiversity: designed to improve the lighting conditions of the regions near the port of Samarco, the action benefits turtles that breed in Espirito Santo

beaches - some of endangered species. From 2006, when the project was started to date, 1,211 nests were preserved and 114 000 pups were born near the port terminal. From September 2013 to March 2014, there was an increase of 60% in the number of nests, and, last season, a record of 130 spawns, with the birth of 3,970 baby sea turtles.

Cação sem Dente Project: started in 2013, with the
participation of government agencies and organizations
such as Peroá Institute, Federal Institute of Espírito
Santo (Ifes) of Piuma and Foundation for the Support of
Development of Science and Technology (FACT) provides
for the experimental farming of two species of common
fish in Espírito Santo waters - the beijupirá and - using
net pens.



Seaturtle from the Project Eco-efficiency in the management of port operations contributing to the Conservation of Marine Biodiversity

# **LEGAL RESERVE**

According to the legislation in effect, Samarco retains 20% of its properties as legal reserve areas in Minas Gerais and Espirito Santo. As a result of the New Brazilian Forest Code, established in 2013, we completed the process of relocation of legal reserves in Minas Gerais and the approval of legal reserves in Espírito Santo. With this process, there was an increase of 26% in Samarco's legal reserve areas.

# **GRIINDEX INDICATORS**

# **CONTENT - GENERAL STANDARDS**

Conteúdos-padrão gerais	Page/response	External verification
STRATEGY AND ANALYSIS	•	•
<b>G4-1</b> Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability		
ORGANIZATIONAL PROFILE		
<b>G4-3</b> Name of the organization		
<b>G4-4</b> Primary brands, products and services		
<b>G4-5</b> Location of the organization's headquarters		
<b>G4-6</b> Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.		
<b>G4-7</b> Nature of ownership and legal form.		
<b>G4-8</b> Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).		
<b>G4-9</b> Scale of the organization		
<b>G4-10</b> Total number of employees		
<b>G4-11</b> Percentage of total employees covered by collective bargaining agreements.	Samarco has in place a collective agreement through collective bargaining, for an effective period of two years (2013-2015), covering 100% of its employees. We assure the right to free association in all our operations, as advocated in our Code of Conduct, and we allow unions to use our premises for activities, provided they comply with the safety and risk control rules. No case of violation of this right has been reported.	
<b>G4-12</b> Organization's supply chain		
<b>G4-13</b> Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain		
<b>G4-14</b> Whether and how the precautionary approach or principle is addressed by the organization.		
<b>G4-15</b> List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses		
<b>G4-16</b> List memberships of associations (such as industry associations) and national or international advocacy organizations		
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES		
<b>G4-17</b> List all entities included in the organization's consolidated financial statements or equivalent documents		
<b>G4-18</b> Explain the process for defining the report content and the Aspect Boundaries		

Conteúdos-padrão gerais	Page/response	External verification
<b>G4-19</b> List all the material Aspects identified in the process for defining report content		
<b>G4-20</b> For each material Aspect, report the Aspect Boundary within the organization		
<b>G4-21</b> For each material Aspect, report the Aspect Boundary outside the organization		
<b>G4-22</b> Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements		
<b>G4-23</b> Significant changes from previous reporting periods in the Scope and Aspect Boundaries		
STAKEHOLDER ENGAGEMENT		
<b>G4-24</b> List of stakeholder groups engaged by the organization		
<b>G4-25</b> Basis for identification and selection of stakeholders with whom to engage		
<b>G4-26</b> Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process		
<b>G4-27</b> Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.		
REPORT PROFILE		1
<b>G4-28</b> Reporting period (such as fiscal or calendar year) for information provided		
<b>G4-29</b> Date of most recent previous report (if any)		
<b>G4-30</b> Reporting cycle (such as annual, biennial)		
<b>G4-31</b> Contact point for questions regarding the report or its contents	relacionamento@samarco.com	
<b>G4-32</b> 'In accordance' option chosen by the organization.	Core	
<b>G4-33</b> Organization's policy and current practice with regard to seeking external assurance for the report.		
GOVERNANCE		
<b>G4-34</b> Governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.		
<b>G4-42</b> Highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.		
<b>G4-43</b> Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.		
<b>G4-55</b> Ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country		
ETHICS AND INTEGRITY		
<b>G4-56</b> Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics		

# **SPECIFIC STANDARD DISCLOSURES**

Material aspects	DMAs and indicators	Page/response	Omission	External verification
ECONOMIC CATEGO	DRY			
Economic Performance	G4-DMA Management method			
	<b>G4-EC1</b> Direct economic value generated and distributed			
Market presence	G4-DMA Management method			
	<b>G4-EC5</b> Atios of standard entry level wage by gender compared to local minimum wage at significant locations of operation			
	<b>G4-EC6</b> Proportion of senior management hired from the local community at significant locations of operation			
	G4-DMA Management method			
Indirect economic impacts	<b>G4-EC7</b> Development and impact of infrastructure investments and services supported			
mpacts	<b>G4-EC8</b> Significant indirect economic impacts, including the extent of impacts			
ENVIRONMENTAL (	CATEGORY			
	G4-DMA Management method			
	<b>G4-EN3</b> Energy consumption within the organization			
Energy	<b>G4-EN4</b> Energy consumption outside the organization			
	<b>G4-EN5</b> Energy intensity			
	<b>G4-EN6</b> Reduction of energy consumption			
	G4-DMA Management method			
	<b>G4-EN8</b> Total water withdrawal by source			
Water	<b>G4-EN9</b> Water sources significantly affected by withdrawal			
	<b>G4-EN10</b> Percentage and total volume of water recycled and reused			
	G4-DMA Management method			
	<b>G4-EN15</b> Direct greenhouse gas (GHG) emissions (scope 1)			
Emissions	<b>G4-EN16</b> Energy indirect greenhouse gas (GHG) emissions (scope 2)			
	<b>G4-EN17</b> Other indirect greenhouse gas (GHG) emissions (scope 3)			
	<b>G4-EN18</b> Greenhouse gas (GHG) emissions intensity			
	<b>G4-EN19</b> Reduction of greenhouse gas (GHG) emissions			
	<b>G4-EN20</b> emissions of ozone-depleting substances (ODS)	Samarco's pellet production process does not emit substances which deplete the ozone layer. The Company only acquires products which conform to Brazilian standard Conama 267/00		
	<b>G4-EN21</b> NO <sub>y</sub> , SO <sub>y</sub> , and other significant air emissions			

Material aspects	DMAs and indicators	Page/response	Omission	External verification
Effluents and waste	<b>G4-DMA</b> Management method			
	<b>G4-EN22</b> Total water discharge by quality and destination			
	<b>G4-EN24</b> Total number and volume of significant spills	There were no significant oil spills in 2014		
	<b>G4-EN26</b> Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff			
B 1 4 1	G4-DMA Management method			
Products and services	<b>G4-EN27</b> Extent of impact mitigation of environmental impacts of products and services			
	G4-DMA Management method			
Transport	<b>G4-EN30</b> significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	In the past three years, Samarco has caused no significant environmental impact (energy, spills, emissions or waste)		
SOCIAL CATEGORY	- LABOR PRACTICES AND DECENT WORK			
	G4-DMA Management method			
Employment	<b>G4-LA1</b> Total number and rates of new employee hires and employee turnover by age group, gender and region			
Training and	G4-DMA Management method			
education	<b>G4-LA9</b> Average hours of training per year per employee by gender, and by employee category			
SOCIAL CATEGORY	- HUMAN RIGHTS			
	G4-DMA Management method			
Non discrimination	<b>G4-HR3</b> Total number of incidents of discrimination and corrective actions taken			
SOCIAL CATEGORY	SOCIETY			
	G4-DMA Management method			
Local communities	<b>G4-S01</b> Percentage of operations with implemented local community engagement, impact assessments, and development programs			
	<b>G4-S02</b> Operations with significant actual and potential negative impacts on local communities			
Anti-corruption	G4-DMA Management method			
	<b>G4-S03</b> Total number and percentage of operations assessed for risks related to corruption and the significant risks identified			
	<b>G4-S04</b> Communication and training on anti- corruption policies and procedures			
	<b>G4-S05</b> Confirmed incidents of corruption and actions taken			

Material aspects	DMAs and indicators	Page/response	Omission	External verification
	<b>G4-DMA</b> Management method			
Anti-competitive behavior	<b>G4-S07</b> Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	There have been no legal actions related to this issue.		
	G4-DMA Management method			
Compliance	<b>G4-S08</b> Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	In December 2014, Samarco had 1274 pending cases, of which 1053 judicial, 219 administrative, and 02 arbitration, mainly resulting from the discrepancy in interpretation or application of laws. These actions are monitored by our legal and finance departments, audited individually and reported in the financial statements which are published periodically.  We did not pay any significant fines in 2014 nor were we subject to any relevant non-monetary penalties – there was only one case of admonition.  No relevant violation notices were reported in 2014 with regard to work health and safety laws.		
0:	<b>G4-DMA</b> Management method			
Grievance Mechanisms for Impacts on Society	<b>G4-S011</b> Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms			
SECTOR DISCLOSUF	RES			'
Local Communities	G4-MM6 Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples  G4-G4-MM7 The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and the outcomes	One dispute was reported with regard to the construction of an outpatient clinic on the pipeline right of way, in Alegre, Espírito Santo. Among the specific mechanisms for the identification of potential conflict we have the Samarco Relationship Center, the ongoing dialogue with the socioinstitutional public, formed by members of local government, the communities and local entities; and the inspection of areas belonging to the Company. The information about the construction was identified through inspection and a formal letter was sent to Samarco by		
Resettlement	<b>G4-MM9</b> Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	the City Council. After a dialogue with the municipality authorities and judicial intervention, said construction was halted.  There was no resettlement of any kind in 2014		

# INDEPENDENT AUDITOR'S LIMITED ASSURANCE REPORT ON INFORMATION RELATED TO SUSTAINABILITY INCLUDED IN THE ANNUAL REPORT FOR 2014

To the Board of Directors Samarco Mineração S.A. Belo Horizonte – MG

### Introduction

We have been engaged by Samarco Mineração S.A. ("Samarco") to present our limited assurance report on the compilation of the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco for the year ended December 31, 2014.

# Management's responsibility

The management of Samarco is responsible for the compilation and fair presentation of the information related to sustainability included in the Annual Sustainability Report for 2014, in accordance with the guidelines of the Global Reporting Initiative (GRI-G4) and for such internal control as it determines is necessary to enable the preparation of information free from material misstatement, whether due to fraud or error.

### Independent auditor's responsibility

Our responsibility is to express a conclusion on the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issuance of an Assurance Report related to Sustainability and Social Responsibility", issued by the Brazilian Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical requirements, including independence requirements, and perform our engagement to obtain limited assurance that the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of the entity involved in the preparation of the information related to sustainability, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information related to sustainability taken as a whole might present significant misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation and presentation of the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco, other circumstances of the engagement and our analysis of the areas in which significant misstatements might exist. The following procedures were adopted:

- (a) planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information related to sustainability included in the Sustainability Report for 2014 of Samarco;
- (b) understanding the calculation methodology and the procedures adopted for the compilation of indicators through interviews with the managers responsible for the preparation of the information;

- (c) applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco;
- (d) comparing the financial indicators with the financial statements and/or accounting records; and
- (e) obtaining evidence for the most significant GRI G4 indicators included in the Annual Sustainability Report for 2014 of Samarco and presented in the "GRI Summary".

The limited assurance engagement also included the application of procedures to assess compliance with the guidelines of the Global Reporting Initiative (GRI-G4) applied in the preparation of the information related to sustainability included in the Annual Sustainability Report for 2014.

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

### Scope and limitations

The procedures applied in a limited assurance engagement are substantially less detailed than those applied in a reasonable assurance engagement, the objective of which would be the issuance of an opinion on the information related to sustainability included in the Annual Sustainability Report for 2014. Consequently, we are not able to obtain reasonable assurance that we would become aware of all significant matters that might be identified in an assurance engagement, the objective of which is the issue of an opinion. Had we performed an engagement with the objective of issuing an opinion, we might have identified other matters and possible misstatements in the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate such data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior years, nor future projections and goals.

### Conclusion

Based on the procedures performed, described herein, no matter has come to our attention that causes us to believe that the information related to sustainability included in the Annual Sustainability Report for 2014 of Samarco Mineração S.A. has not been compiled, in all material respects, in accordance with the guidelines of the Global Reporting Initiative (GRI-G4).

Belo Horizonte, July 14, 2015

PricewaterhouseCoopers Auditores Independentes CRC 2SP000160/O-5 "F" MG

Carlos Augusto Silva Contador CRC 1SP197007



# **STAFF**

# **RESPONSIBILITY**

Juliana Machado Cardoso

# GENERAL MANAGEMENT, CORPORATE SOCIAL COMMUNICATION & DEVELOPMENT

# Coordination / Technical Team

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