

Rio de Janeiro, September 15th, 2017

Addressed to:

Mrs Lesley Burdock
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Germany
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Subject: Vale Response to "Letter from Facing Finance regarding the Dirty Profits report 2018".

Dear Mrs. Lesley Burdock,

Vale strongly disagrees with the content of the Dirty Profits Reports 2012 and 2013.

The reports don't portray Vale's Human Rights and Sustainability policies, procedures and performance.

We hope the responses below will clarify your concerns. We also hope the next lines will help *Facing Finance* understand how Vale has responded to the emergency and continues to monitor and support all human rights remedy processes and environmental recovery of the Samarco accident.

Vale recognizes there is still room for improvement, and is dedicated to achieving higher levels of performance. Nevertheless, much has been already achieved and should not be so easily disregarded.

Vale S.A. – The company

Vale S.A. is the largest mining company in the Americas and one of the largest in the world, leading the global marked in iron ore, iron ore pellets, and nickel. It is also dedicated to the production of manganese, other non-ferrous minerals and fertilizers. With this portfolio, it operates in 26 countries on five continents, relying on robust logistics systems. Through its affiliates and joint ventures, or directly, it holds relevant investments in the energy and steel industries. In 2016, with a workforce of 139.7 thousand, of which 109.5 thousand are located in Brazil, Vale totaled US\$24.3 billion in distributed economic value, aligned with its vocation of transforming natural resources into wealth. For more information on the company, please check: http://www.vale.com/EN/investors/company/fact-sheet/Pages/default.aspx.

Vale recognizes that in its activities, due to the characteristics of the extractive sector, there are numerous challenges regarding environmental and social aspects. That is why the company is committed to maintaining a transparent dialogue with its stakeholders, invest in training, technology, innovation, risk and impact management focusing on continuous improvement.

Vale is a world class mining company that adopts international and national social and environmental standards to conduct its businesses and is committed with sustainability of its operations and the sustainable development of the communities and regions where it operates.

La Morada, Peru

Vale concluded by the end of the second semester the process of devolution of this area to the Government of Peru.



Moatize Mine, Mozambique

Firstly, we would like to reiterate that Vale is in compliance with the Resettlement Plan (Plano de Reassentamento) agreed with, and approved by the Mozambican Authorities.

With regards to the process of guaranteeing the long-term livelihood of the resettled communities, Vale develops actions that not only guarantee livelihoods, but also actions that improve the quality of life of these populations. For this end, two sets of actions are in progress: i) focuses on maintaining the population's livelihoods and ii) promoting self-employment.

Actions to maintain livelihoods:

- Annual support to the agricultural campaign providing improved seeds and technical support for the development of more efficient production practices;
- Encouragement of fruit trees plantation to contribute for a more diversified diet.

Actions to promote self-employment (Income Generation)

- Poultry Project: Training poultry farmers how to improve their chicken production. The beneficiaries received the initial inputs and support for the construction of aviaries. Currently the group has founded an association and produces the feed with its own means.
- Income Culture Project: with emphasis on the production of peanut and sesame, products with a high degree of commercialization in the region;
- Horticulture Project: production of diversified vegetables that focuses on the local market in need of these products (in addition to improving the local community's nutrition);
- Production of soap: reusing cooking oil discarded in the preparation of meals for workers at the mine;
- Production of footwear, carpets, bicycle pedals, among other articles: based on the reuse of rubber discarded conveyor belts.

ITEM		PROJECT	Nº
1	Maintenance of livelihoods	Annual support to the agricultural campaign	8.tons in 2017 – 712 Beneficiaries
		Technical support for planting	330 Beneficiaries
		Stimulation of fruit trees plantation	15 Beneficiaries
ITEM		PROJECT	Nº
2	Income Generation Projects	Poultry farming	282 Beneficiaries
		Cateme's Feed Mill Project	184 members
		Horticulture	140 Beneficiaries
		Income Cultures	176 Beneficiaries
		Shango Project	01 Beneficiaries
		Cateme Soap Production Project	04 Beneficiaries



The social programs carried out by Vale are offered to all families resettled and they are released with the support of community leaders and Cateme Community Radio. We emphasize that membership is voluntary and the vocation of candidates is taken in consideration. Families can enter more than one program, just as there are families that do not yet belong to income generation projects, opting to participate only in the maintenance of livelihoods.

It's important to consider that all income generation projects are a challenge for both the company and the families. Turning these individuals into entrepreneurs is a medium- and long-term process and it is necessary to have a long-term perspective to achieve this transformation. Currently, about 70% of the resettled families are enrolled in at least one program offered, which constitutes a significant number.

In relation to job security and health, Vale has as one of its main values "life matters most", therefore, prioritizes and implements in a routine and coordinated way, actions that aim to promote and preserve health and ensure the safety of workers, acting in three main areas:

Occupational hygiene, focusing on:

- Anticipation and identification of existing risk factors in each work area;
- Assessment of risks and level of exposure of employees;
- Implementation and monitoring of disposal and control measures (determining the specific type of PPE that must be used for each type of environmental agent);
- Periodic monitoring and evaluation of the program.

Occupational health, focusing on:

- Conduct pre-occupational medical examinations to assess the health profile of the candidate and thus determine if the candidate is fit to perform the function for which he is being hired;
- Conduct periodic medical examinations (semiannual and annual) to assess the health status of the worker and to identify early any health problem;
- Implementation of health promotion activities, carrying out health and safety tool box talk in the different work fronts, with the aim of raising awareness among workers in the adoption of good practices for the preservation of their health.
- Implementation of the quality of life program, which aims to monitor and monitor all workers who have a chronic illness;
- Providing a fully equipped clinic, 24 hours a day and 7 days a week, with professionals
 qualified to provide quality health services in a timely manner.
- Provides to all employees with a robust Health Plan that allows him and his
 dependents, a differentiated and personalized service in accredited clinics, as well as,
 in emergencies, air evacuation in and out of the country for better diagnosis and
 treatment.



And in Occupational Safety, several actions are carried out:

- An Induction program for all new employees including contractor employees' main focus on matters related to health, safety and environment;
- A safety video for new employees and visitors to our site;
- All activities at Moatize Coal Mine do only initiate after risk assessment is conducted and/or when all steps of the existing procedure is being followed;
- Vale provides training sessions as well as capacity building to its employees with focus
 on operational procedures and safety related matters which are provided to all
 supervision areas; Vale possess a training center on site (Educação Valer) with aim to
 educate and training its employees and this goes under according to our value "Improve
 Together";
- All employees are issued with personal protective equipment for their activities, as well as they are provided with all tools to perform safely their tasks;
- To manage and prevent fatigue, the Operation of Vale Moatize revised and changed the shift and a new shift was implemented that provides less fatigue and is safer to employees;
- There is available on Moatize site an emergency center with a rescue team (paramedics and fire fighters) always ready for an emergency 24 hours a day and 7 days a week;
- A leading indicator for leadership (Vale and Contractors): safety inspections and behavioral dialogue for leaders with aim to create more interaction of the leaders with the activities in the working fronts and arise more consciousness regarding hazards and risks;
- A procedure for identification, communication and investigation of safety related incidents (accidents and near-miss) and the objective is organizational learning and improvement of our processes in terms of safety;
- Celebrated in Moatize Coal Mine a new transport contract that is providing more comfort to employees during the travelling from home to work and vice-versa.

In addition, and to improve the health and safety conditions of workers, direct and indirect, also made available:

- Canteen with air-conditioner where breakfasts, lunches and dinners are distributed to workers in a regular daily basis.
- Provided drinking water, lighting, ventilation, bathroom in the workplace.

Please recall that for Vale production never overlap our value "Life matters most".



Rio Colorado Mine, Argentina

As part of the procedure for obtaining the environmental approval and due to stakeholders concerns on salt (NaCl) contamination risks, the company undertook a series of assessments for the final location of the Salt Storage Facility (SSF). The site for the SSF was selected taking into account natural and social conditions of each proposed site. After a careful consideration the chosen site was located approximately 18 km from the Colorado River (Rio Colorado). A specific Social and Environmental Report was submitted in 2007 and was approved in August 14 2009 by a Resolution from the environmental and mining authorities after evaluation by the University (Universidad Tecnológica Nacional - Regional San Rafael) and 13 specialized organisms (public and NGOs) appointed by the Mendoza Province. Additionally, as part of the environmental management program developed, an early alert system was designed for monitoring underground water quality and surface water - including the Colorado River. Vale started the construction in 2011 but in March 2013, the construction of the Project was suspended. There was no production of NaCl.

Carajás Railroad, Brazil

Vale seeks to maintain a respectful relationship and carry out actions that avoid, mitigate or compensate possible impacts of its operations on these populations. Therefore, it has stablished Agreements with the Awá and other indigenous peoples which live in the influence area of the Carajás Railroad, either through Funai, third party partners or directly with indigenous associations.

Vale maintains a Cooperation Agreement to support the Awá, Guajajara and Urubu Ka'apor peoples who inhabit the Caru, Awá and Alto Turiaçu Indigenous Lands and include productive activities focused on the ethno development of these populations.

Vale has agreements with indigenous peoples for more than 30 years. In 1982, Vale signed an agreement with Funai to collaborate with the processes of territorial demarcation in the region, which represented the priority of the indigenous peoples. In relation to the Awá Indigenous Land, located 35 km from the Carajás Railroad, included in this initial support, legal third parties, contrary to indigenous rights, filed challenges. This generated a long and difficult process until its final homologation in 2005. During this period, Vale remained with the Awá in their struggle for the territory, including financial support for the demarcation process with Funai, which guaranteed the 116,582 hectares of its Indigenous Land.

As for the expansion of the Carajás Railroad, we clarified that the duplication works of the railroad occurred strictly within the existing domain range. In fact, what is being done is the interconnection of existing maneuvering yards.

It should be noted that the Carajás Railroad does not cut any indigenous lands in Maranhão and that the Awá villages closest to the railroad are Awá and Tiracambú, distant about 1,100m and 1,700 meters from the railroad, respectively. Additionally, it should be clarified that these people are semi-nomadic and, as seen, has been moving beyond the limits of the Awá Indigenous Land, further away 35 km from the railroad.

Regarding the licensing process for the expansion of the Carajás Railway, the indigenous communities are previously and permanently informed and systematically consulted about the various aspects of the project and consulted on the procedures to be adopted in the licensing process with the government bodies - Ibama and Funai. This dialogue is carried out by a multidisciplinary team with experience in the relationship with Indigenous Peoples that permanently make visits, meetings and workshops to these communities, accompanied by the Front of Ethnographic Protection of Funai. The studies are conducted by experienced and independent anthropologists and faithfully follow Funai's guidelines. They identified each of the



impacts of the expansion of the railroad on indigenous communities, as well as suggested mitigation measures, contributing to the preservation of their physical and cultural integrity. The indigenous perspective is prioritized in this process and and their consent is needed.

The works for the expansion of the railroad were only started after the conclusion and approval of the Study of the Indigenous Component - a study that is carried out with the direct participation of the indigenous people – by Funai. Also, and necessarily with the participation of the Awá-Guajá Indigenous People, the Basic Environmental Plan is being implemented with the relevant mitigating measures, all in compliance with Brazilian legislation and considering the perspective of ILO Convention 169.

The dialogue is permanent and other initiatives have been made possible in addition to the Cooperation Agreement and environmental licensing process. For example, support for the construction and equipping of 3 Basic Health Units in partnership with the DSEI-MA (Maranhão Special Indigenous Sanitary District) and the BNDES, which were installed in 2 Awá and 1 Guajajara villages of Caru Indigenous Land.

Vale believes in supporting ethno development of Indigenous Peoples and in long-term, respectful and mutually beneficial relationships.

Samarco Mineração, Fundão Dam, Brazil

The Samarco accident was a terrible, dramatic and unprecedented event in 73 years of Vale's existence, operation and the operation of controlled and affiliated companies. Vale and BHP Billiton own 50% each of Samarco shares. Vale has always emphasized to Samarco the importance of implementing policies and standards in line with its own and has supported Samarco in its efforts to address the damages caused by the accident. Moreover, from the first day of the accident, Vale and its employees have been committed with the emergency response and, right after, with the human rights remediation and environmental recovery, supporting Samarco and Renova Foundation in all areas needed and guaranteeing the funding and implementation of the 41 programs that were established on the agreement with the federal and state governments, together with BHP Billiton.

Samarco's Accident:

On the 5th of November 2015, Fundão dam failed and part of the tailings reached Santarém Dam, which was used to storing water, provoking a partial erosion on the right shoulder of the dam. The material reached Gualaxo do Norte river nearby, travelled along its bed, then flowed into the Doce river, reaching the sea in Espírito Santo State on November 22nd, 2015.

The main impacts were:

- 18 fatalities and 1 missed person, presumed dead
- Around 2,200 hectares impacted along 650 kilometers of the river
- Temporary suspension of water supply in 16 locations
- Impact on public and private infrastructure, including 3 communities to be relocated
- Approximately 300 rural producers impacted. Some of them also had their production capacity impacted
- Around 7,500 fishermen impacted due to a ban of fishing activities

The shareholders of Samarco, BHP Billiton and Vale, provided immediate support to Samarco to implement emergency rescue and relief actions for victims and, subsequently, social remediation



and environmental recovery programs. The three companies immediately launched a series of social, environmental and economic remediation and mitigation actions.

An agreement with federal and state authorities was established facilitating the coordination and better efficiency of the remediation measures.

The main aspects it encompasses:

- Reparation of the environment and of the communities impacted
- Environmental compensation where reparation is not possible, such as:
 - o Project for basic sanitation for the regions impacted
 - Reconstruction of Bento Rodrigues and Paracatu de Baixo
- Creation of the Renova Foundation to manage the socioenvironmental and socio economic programs
- Implementation deadline of 15 years, renewable until all the programs have been implemented
- Establishment of advisory committees with the participation of technical specialists, regulators and representatives of the communities
- R\$ 4.4 bi in the first three years (2016-2018) to guarantee the progress of the reparation and compensation actions, while the projects are being detailed
- R\$ 0.8-1.6 bi per year from 2019 to 2021, the value will be defined based on approved projects
- R\$ 240 million per year over 15 years (since the signature of the agreement) for the execution of the compensation projects
- Additional payment of 500 million to fund sanitation initiatives from 2016 to 2018
- In case that Samarco has no resources, Vale and BHP will fund the amounts due

Please, access the attached documents for detailed information:

- <u>Samarco's Report 1 Year since the Accident</u> with the emergency actions and start
 of the 41 programs defined in the agreement. http://samarco.com/wp-content/uploads/2017/01/Book-Samarco_Ingles_v1.pdf
- Renova Foundation Report for the better understanding of the governance of the remediation and recovery process and a thorough account on all that has been done so far and all that it will still to be completed in the mid-term and the next 10 to 20 years. http://www.fundacaorenova.org/en/activity-report/about-the-report/

After the accident, a Dam Department was created to assess and improve the dam management processes at Vale, generating action plans and targets. All Vale dams received both internal and external auditing and some action plans have been implemented to increase our level of operational efficiency and security. All Vale dams surpass the security level of any national or international legislation. The company also reviewed its emergency plans, including community engagement and community mobilization in case of an accident. In the 2016 strategic planning cycle, Vale proposed a new guideline to maximize iron ore production with natural moisture, reducing tailings generation, optimizing material disposal, separating the slurry from thick tailings and using pits to dispose of the slurry. This new plan estimates a 600 million metric-ton reduction of generated iron ore tailings by 2030, which means a 32% reduction compared to previous production plans. In 2016, the iron ore production was 60% moist beneficiation and 40% with natural moisture. The beneficiation process is expected to be reversed in the coming years, and may reach 70% beneficiation with natural moisture.

Meanwhile Vale has boosted its Risk Management. Nowadays Vale has an integrated Risk approach for all types of risk, encompassing business and processes risk.



The Samarco accident was a terrible event, nevertheless, it has increased our understanding of risks and impacts. New technology is being developed and implemented in various areas. As an example, Vale is implementing a pilot project on an industrial scale with the objective of studying and developing new tailings disposal technologies, aimed at seeking disposal alternatives beyond dams or drainage piles.

Vale reiterates that it will continue to support Samarco in all that is necessary to minimize victims' pain and environmental damage, and that we will do all we can to establish the highest safety standards in the mining industry.

All remediation and recovery actions adopted by Samarco and now, Renova Foundation, are aligned with national and international standards and best practices and the companies' commitment with Global Compact 10 Principles.

Mina do Pico, Brazil

In February of 2015, the Ministry of Labour and Employment (MTE) supervised the Pico Mine (MG), specifically the Ouro Verde company, that provides to Vale transportation services for finished products.

Because of alleged irregular outsourcing, as well as the submission of workers to the condition analogous to slavery, the ministry filed infringement proceedings against Vale. These tax assessments were all challenged by Vale. The classification of these irregularities as "labour analogous to slavery" is not appropriate, since all of Ouro Verde's employees were properly registered, with working papers signed and wages paid, operating air-conditioned trucks to protect them from the dust and heat, and transporting them to their homes every day in safe and adequate transportation.

Vale repudiates any and all forms of disrespect for human rights and did everything in its power to remedy the situation and ensure that it does not recur in its projects and operations.

At the time of the inspection, the contractor was formally and immediately notified by Vale to provide improvements at the construction site and to remedy the irregularities. The work activity was paralyzed and resumed three days later. In July, Vale entered into an agreement with the Federal Labour Prosecutor's Office, reinforcing its commitment to the compliance with standards applicable to the working environment of its employees and collaborators. Ouro Verde entered into the same agreement.

In 2016 Vale contracted an external company to provide a detailed diagnosis in all of Vale's units in Minas Gerais, verifying the physical conditions of installations and issues related to the availability of basic hygiene and drinking water, as well as the legal aspects of Sanitary Conditions and Comfort in the Workplace, regulated by the Labour Ministry. The result of this diagnosis was registered in the Federal Labour Prosecutor's Office, and can be broadly and freely consulted by stakeholders.

The actions established in the agreement with the Labour Ministry have been fulfilled, both by Vale and Ouro Verde. Internal groups were later structured to identify and carry out continuous improvements in facilities and workplaces. The results and improvements have been monitored in the meetings of area leaders. The contract between Vale and Ouro Verde was cancelled and, until the end, inspections conducted by Vale were intensified.



Onça Puma Nickel mine, Brazil

Vale clarifies that the Onça Puma Mine in Ourilândia do Norte (PA) is regularly licensed by the Environment and Sustainability Secretary of the State of Pará (Semas), in compliance with all the conditions established by the environmental agency and the National Foundation of the Indigenous Peoples (Funai).

For years, Vale has been attempting to carry out the actions of the Basic Environmental Plan (PBA) focused on socioeconomic mitigation programs within the Xikrin do Cateté Indigenous Land, but faces an unjustified resistance by the indigenous people, who maintain the company's denial of access.

The company informs that it has proposed to the MPF to pay for the hiring of a technician to accompany, with the Xikrin, the execution of the PBA, but Vale has not yet been informed of the indication of the technician by the federal prosecutors. The company clarifies that it has already presented technical studies, demonstrating that the activities in Onça Puma do not generate pollution of the Cateté river, and the City of Redenção judge denied the Xikrin request for the release of the resources due to the lack of evidence of their argument and has determined a judicial inspection to verify the condition of the Xikrin's tribes and the Cateté river. This inspection has not started yet.

Vale reiterates that it will continue to await the authorization of the Xikrin to access the Indigenous land in order to implement the actions defined in the PBA, already approved by Funai. Vale remains open to dialogue with the Xikrin people, respecting their culture and rights.

Vale will continue to work seeking to overcome the challenges concerning sustainable development that are shared across various regions and countries where we are present. We are committed to maintaining the energy and hard work to guarantee continuously improvement, aligned with relevant guiding principles and standards. We believe that substantiality is not only a goal, but a process, a path that needs to be carefully mapped; with metrics, parameters, goals and a lot of effort and respect for people and the environment.

Vale S.A.

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