

Tax
Transparency
Report

2019

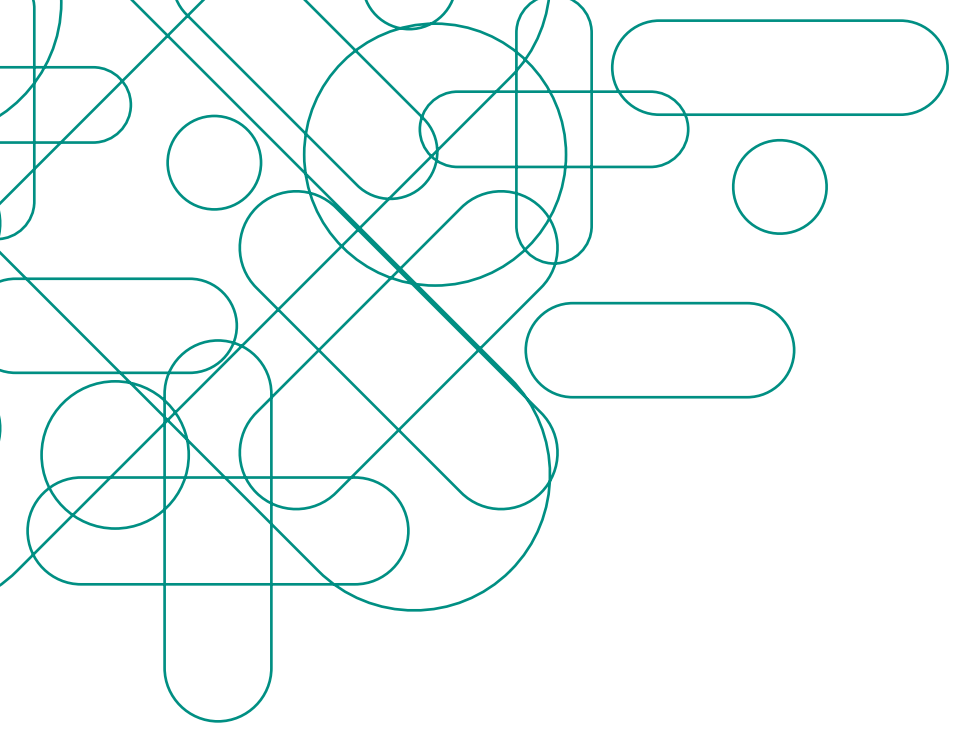


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Foreword

1. Message from our CEO

We are publishing this report at a time when we at Vale are writing a new chapter in our history. The consequences of the Dam I rupture at the Córrego do Feijão Mine in January 2019 have reinforced the need to develop and expand a dialogue with our stakeholders in a transparent way. We continue to focus on responsible socioeconomic development in the regions and communities where we operate, and recognize the need to explain how we are delivering against our targets and aspirations.

In 2019, as part of this new chapter, we made a commitment to provide additional information of the taxes we pay in the jurisdictions and locations in which we have a presence, across all our businesses and to all levels of government. Last year we paid US\$4.5 billion in taxes and royalties globally, of which the majority – US\$4.25 billion – were paid in Brazil, where our headquarters is located and where a significant part of our operations are carried out.

The purpose of this report is to add details and context for an ongoing dialogue with investors, governments, communities and other stakeholders. By doing this, we believe we contribute to a fair, effective and stable tax environment, which helps to create a sustainable society.

This report also aims to provide insights into our global tax strategy, including our tax compliance practices, our conservative approach to tax planning,

tax policies, fiscal risk management, tax governance, and our respectful relationship with tax authorities.

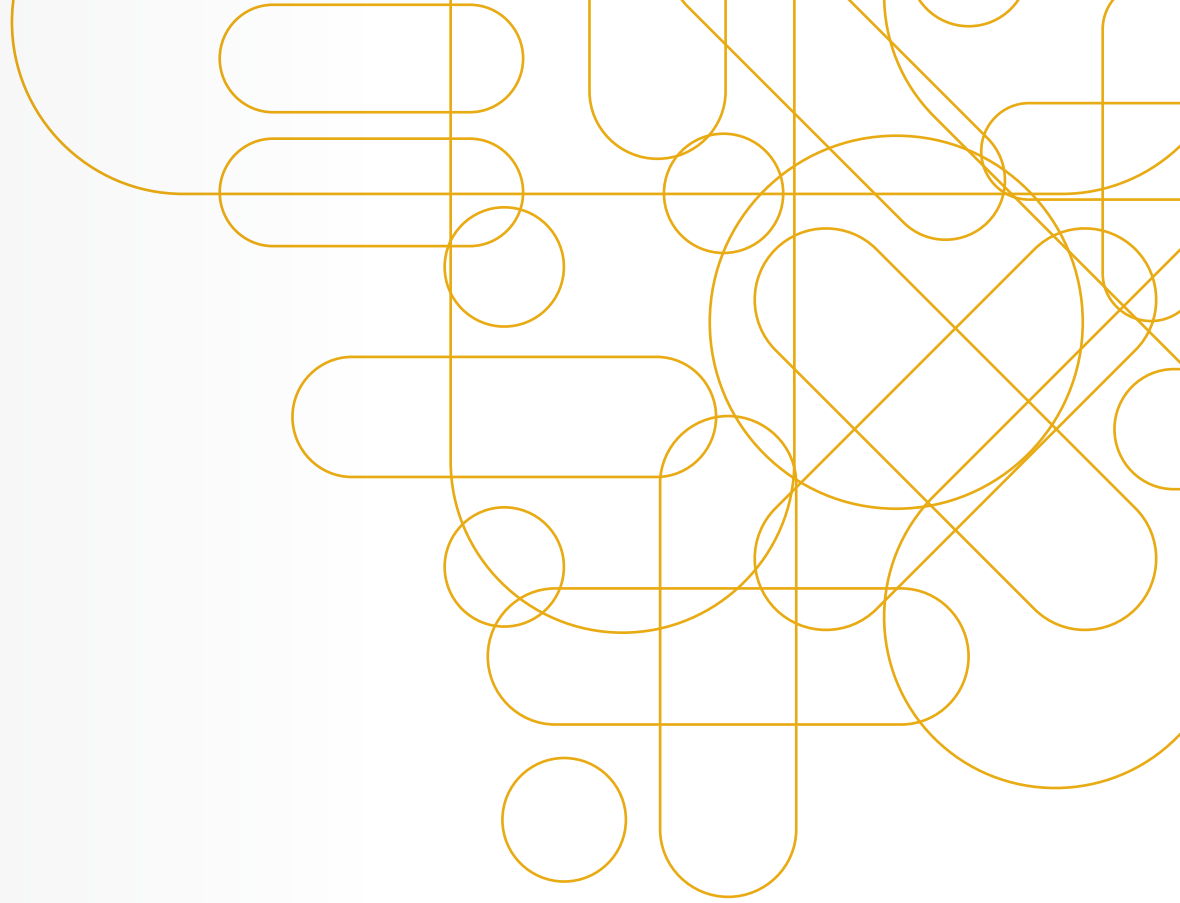
Our approach to tax is to fully meet our legal obligations, and to consider the guidance from global industry stakeholders – such as the principles recommended by the International Council on Mining & Metals (ICMM) and the terms of the Extractive Industries Transparency Initiative (EITI). Information on our payments to governments are publicly available and disclosed through the compliance with the Canadian Extractive Sector Transparency Measures Act (“ESTMA”) and our participation in the EITI reports in jurisdictions including Indonesia and Mozambique, where we operate mines.

One of Vale’s [strategic pillars](#) is the New Pact with Society, which seeks to go beyond the payment of taxes, the realization of social projects and the repair agenda, becoming a facilitator of development in the areas in which we operate and promoting a safer and more sustainable Brazilian mining industry.

We are on a journey to transform the way we engage with our stakeholders and how we understand each other. We hope these first steps are positive.

Sincerely,

Eduardo Bartolomeo
CEO of Vale



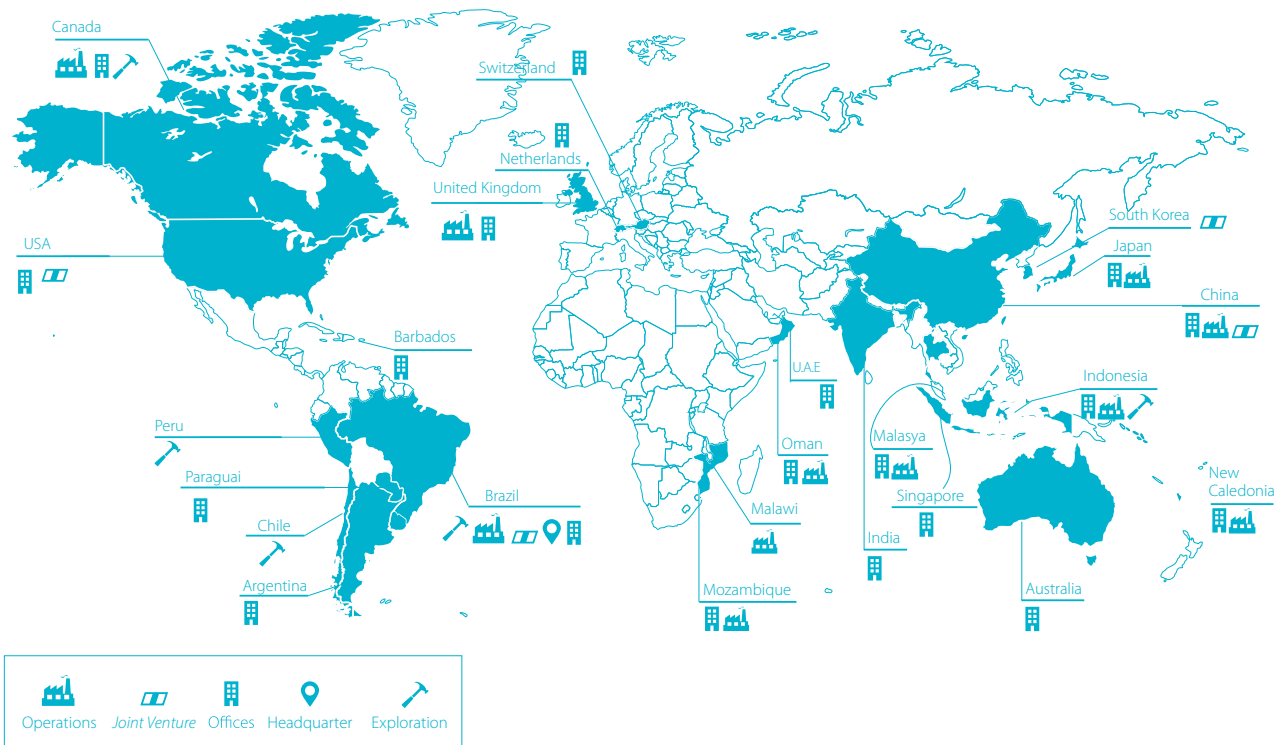


2. Introduction

Vale's first tax transparency report aims to create a better understanding amongst our stakeholders of our businesses, operations and the taxes we pay. Vale is one of the world's largest iron ore and nickel producers. Ores and minerals extracted from our mines are used around the globe to manufacture essential products from cell phones to airplanes, building structures to coins.

With operations in more than 20 jurisdictions on five continents, the company also produces manganese, ferro-alloys, copper, metals of the platinum group metals (MGPs in Portuguese), gold, silver, cobalt, and metallurgical and thermal coals. Producing this variety of raw materials requires an infrastructure that includes mineral exploration, administrative offices and operational units connected by modern integrated logistics systems, comprising railroads, maritime terminals and ports.

Our logistics structure also carries third-party cargo and offers two passenger train lines in Brazil — the Vitória-Minas Railroad and Carajás Railroad.



Through our operations, investments and taxes, we make an important contribution to the growth of the global economy.

Vale is committed to integrating sustainability into its business by building a strong and positive economic, social and environmental legacy and mitigating the impacts of its operations. The taxes we collect and pay represent one of the ways in which we embrace this responsibility.

This report is intended to be concise, understandable and accessible to all of our stakeholders.



Mission

To transform natural resources into prosperity and sustainable development.



Vision

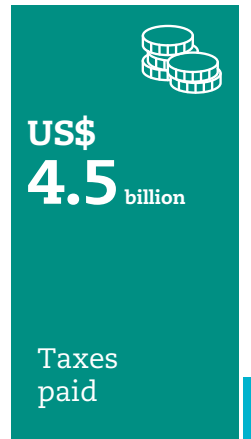
To be the number one global natural resources company in creating long term value, through excellence and passion for people and the planet.

Values

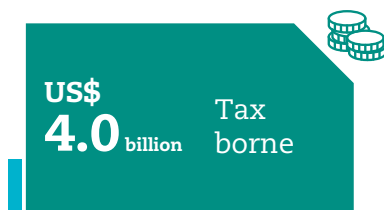
1. Life matters most
2. Value our people
3. Prize our planet
4. Do what is right
5. Improve together
6. Make it happen



Key figures for 2019



Comprising



145,414
Employees**

*More detail on the Total Economic Contribution and how this figure was calculated can be found in Vale's annual Sustainability Report, accessible on our website (<http://www.vale.com/esg/en/Pages/SustainabilityReports.aspx>).

** In 2019 Vale counted 72,336 employees and 73,078 contractors. 78.7% of them located in Brazil.



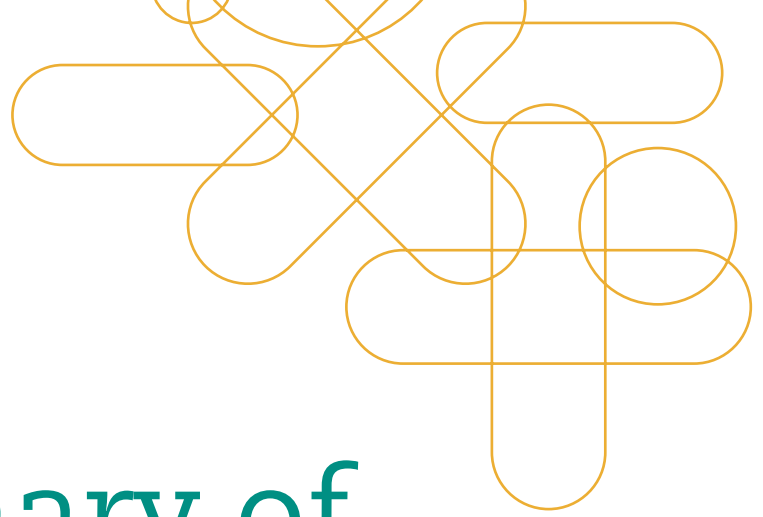
Vale's commitment to tax transparency

- We disclose our tax payments by jurisdiction.
- We openly communicate our tax position.
- We engage proactively, transparently and collaboratively with tax authorities.



Vale's commitment to tax compliance

- We target excellence in relation to tax compliance.
- We respect and follow applicable local tax laws and tax reporting obligations in every jurisdiction where we are present.



3. A Summary of how this report was prepared

This report has been prepared using data derived from our internal controls over financial reporting. Vale S.A. and its subsidiaries use the same data to prepare individual and consolidated financial statements, according to the International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB).

The headline figures presented in this report and those found in other reports published by Vale S.A. and/or its subsidiaries may also differ. This is because different reporting frameworks have specific data requirements. Vale's Extractive Sector Transparency Measures Act (ESTMA) submission can be found at <http://www.vale.com/canada/en/pages/estma.aspx> for clarity and comparison.

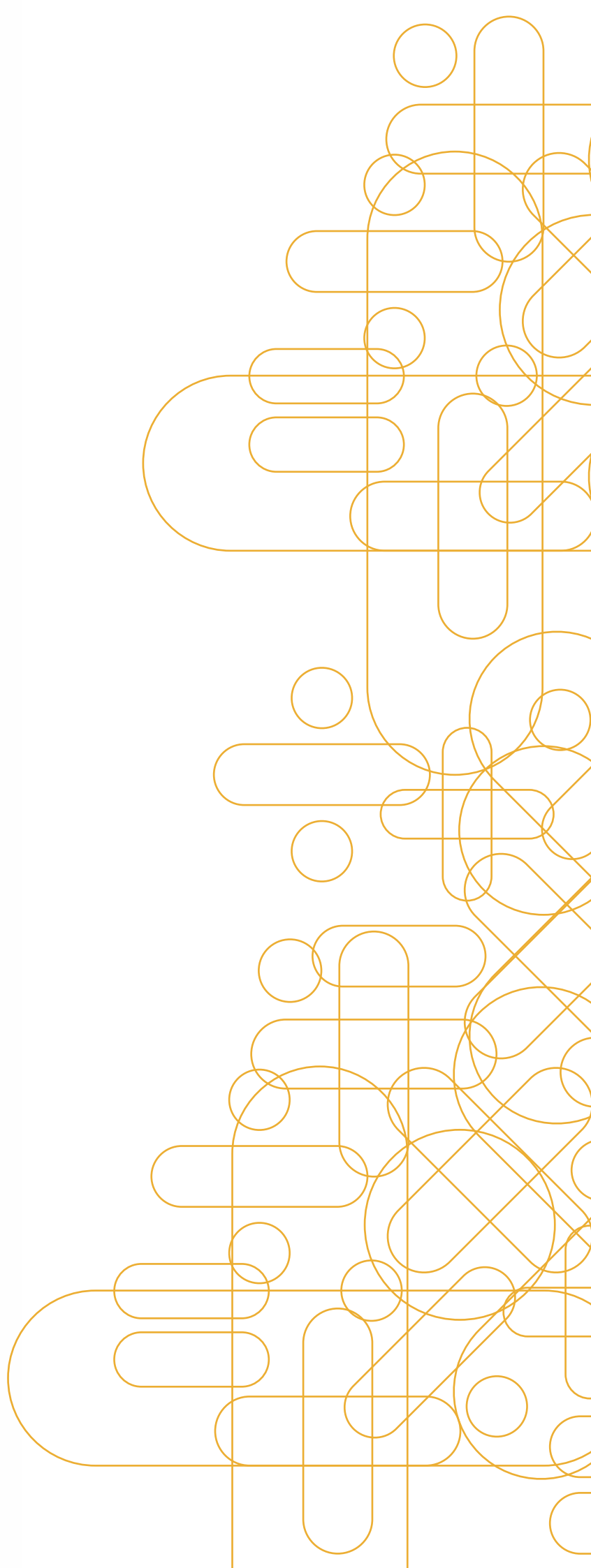
For the purposes of this report, Vale's total tax contribution is understood as being comprised of:

- Corporate income taxes
- Tax on mining
- Payroll taxes
- Tax on products and service
- Other taxes

Detailed definitions of each of these terms can be found in "[Appendix 1 – The basis on which this report was prepared](#)".

3.1. Definitions and key terms

Detailed definitions of key terms and technical language used in this report can be found in "[Appendix 2 – Glossary](#)".





4. Our approach to tax

4.1. Our tax principles

Vale's tax affairs are managed by a global team of professionals who abide by the following principles in their day-to-day work:

- Transparency,
- Creation of long-term value,
- Effective risk management and control,
- Excellence in compliance, and
- Proactive and open engagement with tax authorities.

<h2>Transparency</h2>	<p>Being transparent about the taxes and royalties we pay is an opportunity to share how we contribute to economic vitality of the jurisdictions and communities where we operate. By adopting a transparent approach, we aim to build trust with our local, national and international stakeholders over time.</p>
<h2>Long-term value</h2>	<p>Our vision is to create long-term value for all who are involved in our business activities. Our investment in our mines is often a multi-decade commitment to a community, and where we can share value, we create a stronger sustainable business.</p>
<h2>Risk management and control</h2>	<p>In every aspect of our business, we work to provide certainty and manage risk. In terms of tax, this means that we have effective frameworks in place to monitor, identify, control and manage of our tax commitments, and to ensure we are correctly meeting our obligations*.</p>
<h2>Compliance</h2>	<p>We target excellence in relation to tax compliance. We fully respect applicable local tax laws and tax reporting obligations in every jurisdiction where we operate. We do not engage in aggressive tax planning.</p>
<h2>Engagement</h2>	<p>We seek to develop open, collaborative relationships with tax authorities, acting with integrity in the jurisdictions in which we operate. We engage in proactive discussions in relation to tax matters, business operations and investments.</p>

* The guidelines and guidance for the corporate risk management strategy are set out in Vale's Risk Management Policy, dated September 27, 2018 (<http://www.vale.com/en/investors/corporate-governance/policies/pages/default.aspx>).

We have robust internal risk management procedures in place to manage the diverse and complex tax transactions carried out across our business. While uncertainty in relation to tax matters is an element that cannot be fully excluded in our business, all potential tax risks are regularly identified and monitored.

Where material uncertainties are identified, they are properly assessed and discussed with external advisors, before the Company's position is agreed by the Compliance Business Risks Executive Committee; the Executive Board; and the Board of Directors.

To avoid doubt, Vale does not take business decisions with the aim of reducing its tax liabilities.

4.2. Tax compliance

As a Company with global footprint, we are subject to numerous statutory reporting obligations. For this reason, we count on expert professionals with a deep knowledge of local and international taxation. Our Companies seek to meet their compliance requirements on a local, regional or worldwide basis by means of consistent, timely and efficient processes.

We focus on quality and control with regard to our tax compliance obligations and have a robust internal audit process that analyzes how we meet tax filing and compliance procedures.

4.3. Internal tax planning

We do not engage in aggressive tax planning or artificial arrangements and tax considerations do not influence our business operations. It is our Company's policy to always operate in strict compliance with all relevant local legislation. In case of uncertainty or doubt when interpreting the law, we seek independent external advice to fulfill our tax obligations.

Vale is subjected to various legal controls, especially under Brazilian tax legislation, which assure payment of taxes regardless of the international nature of its operations.

First, under Brazilian legislation, Vale is subject to Controlled Foreign Corporation ("CFC") rules, as the ultimate parent of the group's various enterprises around the world. Brazilian CFC rules are among the strictest in the world, as they comprise the profits of all foreign subsidiaries and affiliates, even if there is no direct shareholding, regardless of the international entity being located in a tax haven. All such profits are subjected to corporate income tax in Brazil, whose statutory rate is 34%, also among the highest in the world. Corporate income taxes paid abroad can be deducted from the Brazilian payable tax. These rules result in the effective curtailment of any tax planning benefits that could arise from international structures.

Second, Brazilian CFC rules apply in coordination with very strict transfer pricing rules, which hamper any transfer of profits to foreign affiliates. Considering the nature of Vale's products, the PECEX method

applies. Under this methodology, when Vale promotes sales to related parties abroad, the value of its revenues is determined according to quoted prices in internationally recognized commodities exchanges, subjected to adjustments regarding timing, location, intermediation costs and others. Apart from CIT, PECEX is also employed regarding royalties (CFEM).

Third, these rules also apply in coordination with very severe thin-capitalization rules, which hinder any attempt to erode the Brazilian tax base with interest payments to related parties or financial institutions located in tax havens, which is a conduct that Vale does not engage in.

These three levels of overlying controls, coupled with Vale's strict compliance with tax rules, assure that no aggressive tax planning is undertaken by the company.

4.4. Engagement with tax authorities

Vale values and maintains a transparent, professional, collaborative, and good faith relationship with tax authorities, in compliance with our [Code of Conduct](#), global anti-corruption rules, and the legislation in force in the jurisdictions where we operate.

Due to the complexity of the activities that we are engaged in and that of various legal systems, contentious points in tax and royalty legislation do arise from time to time. Where disputes occur, Vale is committed to engaging transparently and in good faith with administrative and judicial proceedings in accordance with local laws. We conduct all disputes consistently on a technical and legal basis. No tax liability is ever purposefully disregarded. Whenever there are tax assessments in conflict with the company's technical position, strictly legal means of defence are always employed and all guarantees demanded by the legislation are provided. All tax liabilities currently under dispute in Brazil are either not chargeable or subjected to adequate guarantees. Vale has all fiscal regularity certifications provided by the Brazilian government, according to applicable rules. In the few circumstances where the company's position is not confirmed by the Judiciary, the tax liability is promptly paid.

4.5. Intra-group transactions

Due to the nature of our business, we carry out transactions with affiliates, subsidiaries, and jointly controlled companies with third parties, to integrate activities across our production and commercial operations.

Our main intra-group transactions are with our Swiss-based entity, Vale International, which manages our interface with our customers, many of whom are in Europe and Asia. Vale International specializes in fulfilling customer requirements, managing freight from production assets to customers, managing inventories in export sales, and arranging processing operations abroad in order to find the best markets and prices for our products. This entity manages risk and uncertainty in the global market. The geographical location and time zone, mid-way between our production location and our markets, enables us to serve our customers effectively.

Our export operations are carried out in compliance with Brazilian transfer pricing rules¹, which aim to prevent artificial shifts of profit to foreign subsidiaries. Compliance with these rules is measured using the “Commodity Exchange Export Price Method (“PECEX” in Portuguese). Any adjustment identified under this methodology must be included in CFEM² calculation basis and Corporate Income Tax. The Brazilian Federal Revenue Service regularly monitors transfer prices for compliance with PECEX.

The PECEX transfer pricing methodology uses the average commodity exchange price (“average quoted price”) as a benchmark to assess outbound transactions of commodities, for example ores. Positive and negative adjustments may be done to make the comparability between the transfer price and the average quoted price feasible. These adjustments are related to the quality of the commodity exported and to the terms and conditions in which the exports are made, such as: freight; payment deadline; amount in negotiation; climate effects in the commodity exported; intermediation costs in connection with assets employed, the risks assumed, and the functions performed by entities involved and handling fees.

Products originating outside of Brazil – primarily in our nickel operations, as well as intercompany transactions – are priced in a manner that complies with the “arm’s length” principle which holds that transactions should be valued as if they had been carried out between unrelated parties, each acting in its own best interest. To demonstrate compliance with this principle, Vale prepares and lodges transfer pricing documentation annually according with OECD transfer pricing guidelines and relevant local requirements.

We comply with the OECD’s Country-by-Country Reporting (“CbCR”) requirements, which were implemented in Brazil by the Normative Ruling nº 1,681/2016. The CbCR document is lodged in July annually, as part of our ultimate parent Company’s corporate income tax return (ECF in Portuguese) in Brazil. The report contains the required information on taxes, financial elements, employment and the Company’s functional profile, and is provided to tax authorities.

4.6. Low-tax jurisdictions

We regularly review third-party documentation to identify any Vale subsidiaries located in low-tax jurisdictions. Sources include the EU list of non-cooperative jurisdictions for tax purposes (as published in February 2020), the

1 Law nº 9,430 / 96 and IN RFB nº. 1,312 / 12

2 Financial Compensation for the Exploration of Mineral Resources.

EU Watch List and Brazilian regulations on favorable jurisdictions³. Brazilian authorities apply a broader definition of low-tax jurisdictions than the EU, such that Brazilian transfer pricing rules also apply to third-party transactions between Vale S.A. (and other Vale Brazilian Affiliates) with third party organizations located in favorable jurisdictions as defined by Brazilian tax regulations.

We have certain operational entities, notably in Oman where we operate two iron ore pelletizing plants together with a distribution center and in the United Kingdom⁴ where one of our nickel refineries is located, as well as Special Purpose Vehicles and holding companies located in low-tax jurisdictions, mainly for historical reasons and as a result of acquisitions. The profit of the entities located in low-tax jurisdictions⁵ did not exceed US\$79 million in 2019 on an individual basis.

In all cases, the profits of Vale entities located in low-tax jurisdictions are ultimately taxed in Brazil under CFC regulations and therefore there is no income tax benefit derived from entities in those jurisdictions.

To simplify and rationalize our entities and operations, we carry out regular reviews of all entities through our Legal Entities Reduction (LER) program. Where the program identifies entities that are not required, we endeavor to close them.

4.7. Tax incentives

Vale receives tax incentives in some of the jurisdictions in which we operate, recognizing the contribution our operations make to the local economy, such as employment and economic activity in our wider supply chain. None of the regimes under which Vale has been granted incentives are noted by the OECD as being a harmful tax practice.

Jurisdiction	Incentive	Description
Brazil	Investments in Amazon Development Superintendence (SUDAM) & Northeast Development Superintendence (SUDENE)	<p>Companies are incentivized to invest in the North and Northeast regions of the country through opportunities to legally reduce income tax on activities classified as priorities. These reductions are calculated based on the operating profit of said activity.</p> <p>Vale's operations in the region (iron ore, pellets, nickel iron, copper and manganese) are covered by a 75% reduction in the income tax generated by the incentive activity. This benefit is granted for a period of 10 years. Most incentives will expire in 2024, and the last recognized incentive will expire in 2027.</p> <p>Part of the balance to be paid on the income tax may be reinvested through the purchase of new machinery and equipment, in a specific project that must be examined by the agency that operates the local tax incentives (SUDAM and SUDENE). This tax benefit was not made available in 2019.</p> <p>For both incentives, Vale is required to appropriate the balance of the unpaid tax in a profit reserve account, which will not be distributed in accordance with the law.</p>

³ Normative Instruction nº 1,037 / 10 and Law nº 12,973 / 14.

⁴ Unlike most other low-tax jurisdictions lists, the United Kingdom is included under the broader Brazilian list because one of the conditions of being included in the Brazilian list is that jurisdictions where corporate income tax rates are lower than 20% are deemed to be considered low tax jurisdictions from a Brazilian perspective.

⁵ As defined by the broader Brazilian regulations.

Jurisdiction	Incentive	Description
Brazil	Special Regime for the Acquisition of Capital Goods for Exporting Companies (RECAP)	<p>The RECAP benefit was created by the government to incentivize companies to acquire goods locally, in order to benefit the local economy. The benefit to Vale consists of the suspension of the Social Integration Plan (PIS in Portuguese) and Social Welfare Tax (COFINS in Portuguese) on the purchase of capital goods, both internationally and domestically that will be incorporated into the fixed asset of the beneficiary. The duration of this benefit is three years.</p> <p>Companies also need to be classified as predominantly exporting (more than 50% revenue derived from exports). Only companies that have been qualified by the Federal Revenue Service (RFB in Portuguese) can benefit from RECAP.</p> <p>The RFB website lists all qualified exporters, including the following Vale affiliates:</p> <ul style="list-style-type: none"> ● Salobo Metais S.A. (until May 2021) ● Mineração Corumbaense Reunidas S.A. (until April 2022)
Brazil	Tax Incentive for the Modernization and Expansion of the Port Structure (REPORTO)	<p>The REPORTO benefit was created by the government to stimulate investments in the modernization, recuperation and expansion in Brazilian ports, reducing logistical obstacles and improving the infrastructure of the country.</p> <p>The benefit consists of suspending of federal taxes on purchases, both in the domestic market and on imports of machinery, equipment, spare parts and other goods that will be incorporated into the fixed asset of the beneficiary of this tax incentive.</p> <p>The goods acquired are required to be used exclusively on the following activities or services:</p> <ul style="list-style-type: none"> ● Loading, unloading, storage and handling of goods and products; ● Additional systems to support operations; ● Environmental protection; ● Security and systems to monitor the flow of people, goods, products, vehicles and vessels; ● Dredging; and ● Education and training workers, including implementing of Vocational Training Centres. <p>The qualification will be formalized through an Executive Declaratory Act (ADE) issued by the Delegate of RFB and the ADE will be published in Brazil's Official Journal. Besides Vale S.A., our affiliates that have this benefit are Mineração Corumbaense Reunidas S.A and Companhia Portuária Baía de Sepetiba and they all are listed in RFB website (http://receita.economia.gov.br/aceso-rapido/legislacao/pessoas-juridicas-habilitadas-e-coabilitadas/relacao-das-pjs-in-1370-2013.pdf).</p>

Jurisdiction	Incentive	Description
Brazil	Special Regime of Incentives for Infrastructure Development (REIDI)	<p>The REIDI benefit was created by the government to stimulate investment in infrastructure, for example transportation, ports, energy, sanitation and irrigation assets.</p> <p>The benefit consists of suspending PIS and COFINS related to acquiring of goods and services both internationally or domestically that will be incorporated into the fixed asset of the beneficiary.</p> <p>The benefit requires that purchases be related to a project in the incentivized areas previously approved by the tax authority.</p> <p>Vale's current infrastructure investment projects include:</p> <ul style="list-style-type: none"> ● Pará Southeastern railway ● Carajás Railroad Expansion ● São Luis expansion of the railway terminal ● Expansion of the maritime terminal in Ponta da Madeira and Pier IV.
Brazil	Research and development (Good Law – Lei do Bem in Portuguese)	<p>The tax incentives associated with technological innovation were instituted in Brazil, through the "Good Law", to encourage investment in the development of national technology.</p> <p>Vale supports several research, development and Innovation (P&DI in Portuguese) projects in the areas of mining (iron ore, manganese, coal, pellets, and base metals), logistics, steel and energy. The expenditures on labour, materials and services for projects linked to this law are deductible from the Company's income tax basis, according to Law No. 11,196/05.</p> <p>In 2008, Vale Technological Institute (ITV in Portuguese) was created and it has more than 1,000 patents in 61 jurisdictions. Since that year, Vale has used the tax incentives associated with Good Law, thus contributing to promote a culture of research, development and technological innovation. Vale identifies and evaluates P&DI initiatives and projects annually, ranking the projects that qualify for the concept of technological innovation described in the legislation.</p> <p>In 2019, more than 500 projects and initiatives with the potential to capture tax benefits via the Good Law were evaluated.</p>

Jurisdiction	Incentive	Description
Brazil	Sponsorships and donations	<p>The Brazilian government incentivizes companies to support social projects related to culture*, sports**, childhood and adolescence*** and seniors and health programs. Payments made towards these programs can be deducted directly from the organization's Corporate income tax bill for the year, up to a limit of 4%.</p> <p>In 2019, Vale invested over US\$ 30 million in 102 qualifying projects in Brazil.</p> <p>Guided by a broad vision of sustainability, investments are made either through its own resources or via incentivized resources. Through incentive laws, the company has the opportunity to strengthen public policies in the jurisdiction, a vision that is in line with Vale's commitment to contribute positively to society.</p> <p>Prospective applications are assessed according to set criteria, such as alignment with Vale's values. In addition, projects need to be located in areas where the company operates.</p>

*Law nr. 8,313 / 1991.

**Law nr. 11,438 / 2006.

***Law nr. 8,069 / 1990.

In addition to the incentives listed above, Vale also receives tax incentives in other jurisdictions where it operates. Vale receives corporate income tax incentives in Malaysia, Mozambique, Malawi and Singapore; and exemptions on customs duties and VAT on the import of raw materials, machinery and/or equipment in Mozambique, Malawi, Malaysia, New Caledonia and Oman.

However, the statutory profit of all concerned legal entities remains fully taxable in Brazil under the Brazilian CFC legislation. Under the CFC rules, there is no overall reduction in the total tax paid by Vale S.A. because of these benefits.

5. Vale's tax contribution



Vale is a leading participant in the global mining sector. We recognize that this brings significant social and economic responsibilities in the jurisdictions where we operate. Vale strives to provide employment, strategic and sustainable development, significant community investment, and pays taxes and royalties to governments in full as required by local legislation.

This report details taxes and royalties paid in jurisdictions where Vale has a presence. It presents Vale's total contribution by jurisdiction and by level of government. This report also provides further detailed information on Vale's tax contributions in the following jurisdictions where its mining operations are located:

- Brazil
- Indonesia
- Canada
- New Caledonia
- Mozambique

Total taxes: US\$ 4,555 MM



Corporate income taxes

US\$
1,837 MM



Tax on mining

US\$
947 MM



Payroll taxes

US\$
1,034 MM



Tax on product and service

US\$
631 MM



Other taxes

US\$
106 MM



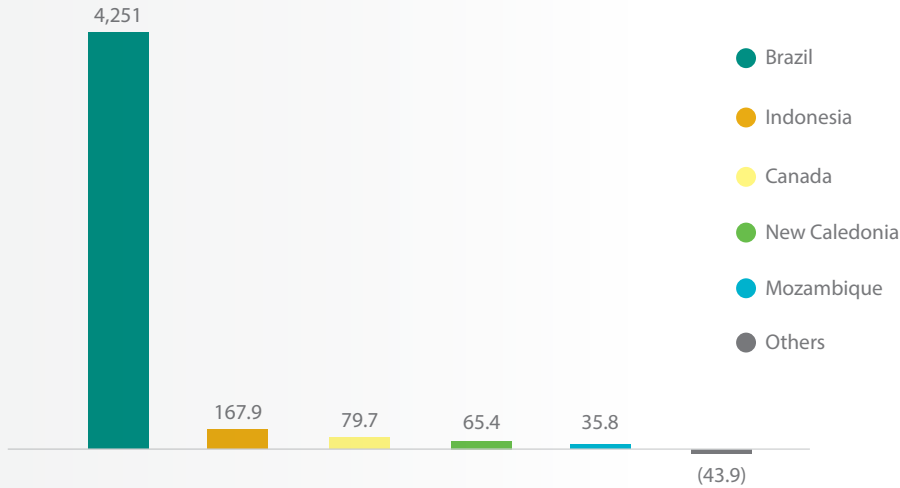
Number of employees

145,414

5.1. Global tax contribution

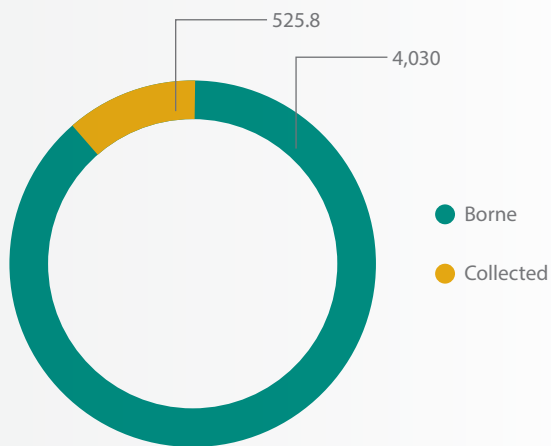
In 2019, Vale paid a net contribution of US\$ 4.5 billion in taxes and royalties. The majority of this contribution — US\$ 4.25 billion (93.7%) — was paid in Brazil.

Payment by jurisdiction



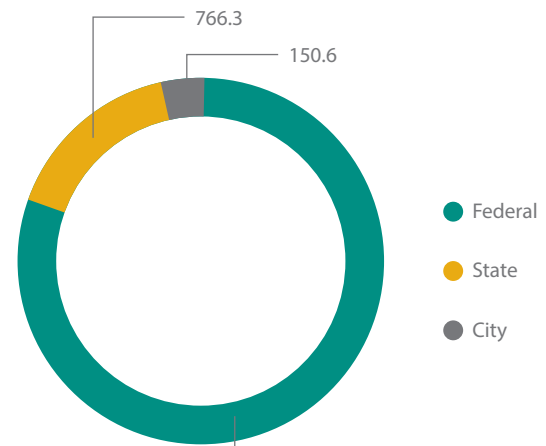
Values in millions (US\$). • The negative value for “Other” is the net result after credits and refunds were deducted from tax effectively paid.

Category of payment



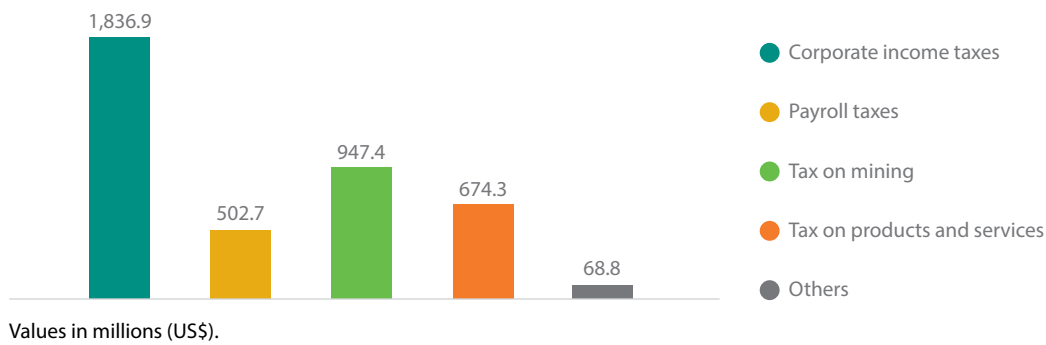
Values in millions (US\$)

Level of government



Values in millions (US\$).

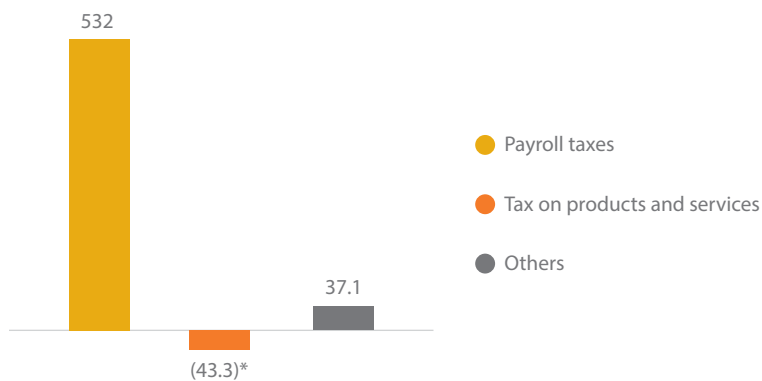
Tax borne



Values in millions (US\$).

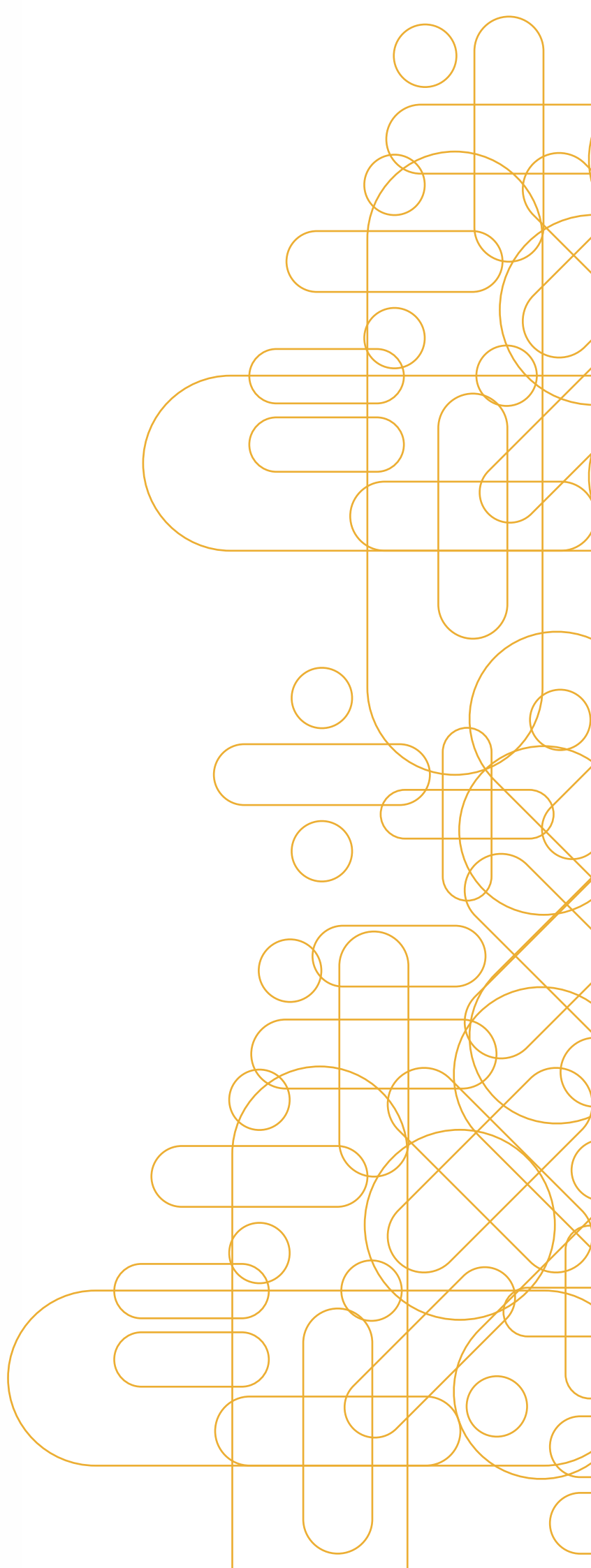
"Other payments" refers to fees and discretionary contributions made during the financial year (for example tax over property tax or financial transactions). More details can be found in ["Appendix 1 – The basis on which this report was prepared"](#).

Tax collected



Values in millions (US\$).

*The net value of tax on products and services results from refunds from governments on value added tax (VAT), goods and services tax (GST) and other sales taxes on supplier invoices not borne by Vale.

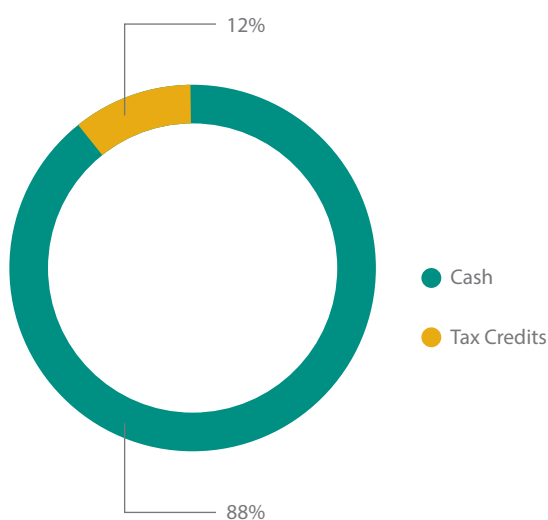


5.2. Contribution in Brazil

In Brazil, Vale's primary commodities are iron ore and base metals, principally copper. Vale also extracts other raw materials, such as manganese and ferroalloys. Vale's operations in Brazil benefit from pre-existing logistics infrastructure, which was originally built to transport iron ore. Vale is working closely with public and private sector partners to invest in technology and infrastructure to continuously improve the efficiency and sustainability of its operations, from extraction to delivery to customers.

In 2019 we paid US\$ 4.25 billion in taxes in Brazil. Approximately 12% of the total was paid through available tax credits⁶.

Type of payment



Total taxes: US\$ 4,251 MM



Corporate income taxes

US\$ 1,709 MM



Tax on mining

US\$ 907 MM



Payroll taxes

US\$ 684 MM



Tax on product and service

US\$ 924 MM



Other taxes

US\$ 27 MM



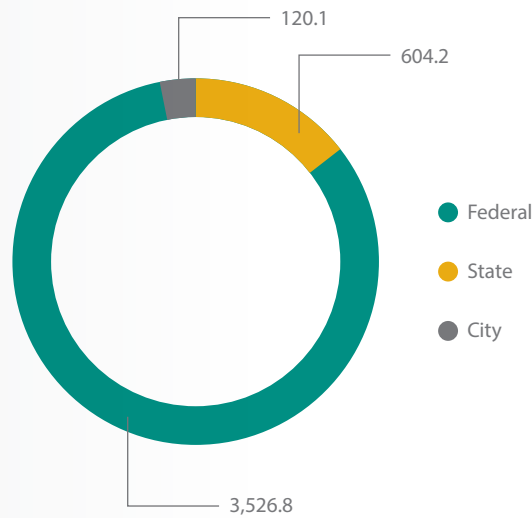
Number of employees

114,485

⁶ Brazilian legislation allows the offset of federal taxes or contributions with other federal credits to companies that follow a process set out by the Brazilian Federal Revenue (RFB) Service called PER/DCOMP. The main credits used by Vale are:

- Overpayment of federal taxes and/or contributions.
- Social integration plan ("PIS") and social welfare ("COFINS") taxes.
- Negative balances of Corporate Income Tax ("IRPJ") and Social Contribution ("CSLL").

Level of government



Values in millions (US\$).

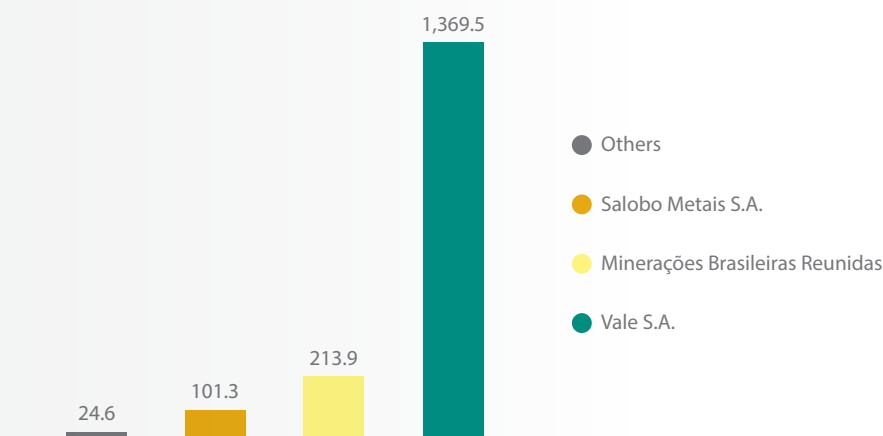
5.2.1. Corporate income taxes

Under the prevailing Brazilian Corporate Income Tax regime, accruals are deductible expenses only when effectively incurred. Thus, although we were in an accounting loss position at December 2019, the add-back of provisions in the income tax base calculation led to a tax profit position. This resulted in a corporate income tax payable situation.

In corporate income taxes alone, US\$ 1.7 billion were paid.

Together, Vale S.A., Minerações Brasileiras Reunidas and Salobo Metais S.A. correspond to approximately 98.6% of the main total⁷.

Payment by company



Values in millions (US\$).

⁷ The remaining 2% was paid by the following Brazilian companies: Companhia Portuária Baía de Sepetiba, Mineração Corumbaense Reunidas, Docepar, Empresa de Mineração Esperança S.A., Minas da Serra Geral S.A., Cia Paulista de Ferroliga, Empreendimentos Brasileiros de Mineração S.A., Aços Laminados do Pará S.A., Mineração Guanhães Ltda., CPP Participações S.A., Vale Manganês S.A and Mineração Mato Grosso S.A..

5.2.2. Tax on mining

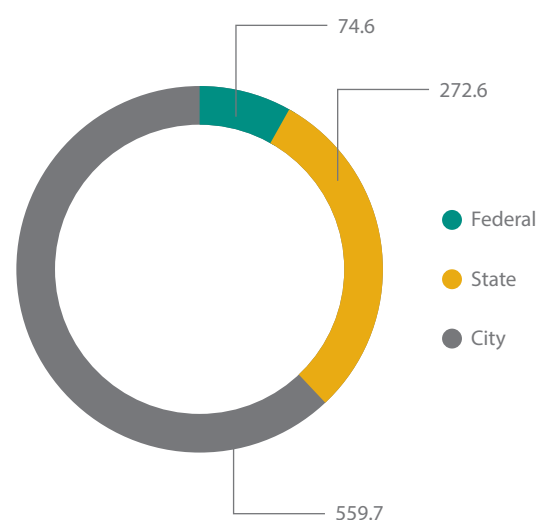
In Brazil, mining companies are subject to contributions due to the exploration of public mineral resources. Rates vary from 0.2% to 3.5%, according to the type of mining operation. Payments are made to the National Mining Agency, which is responsible for distributing proceeds to states and municipalities, according to where the mining activity occurs. Furthermore, some states have enacted specific charges over mining and related activities. Payments include:

- Financial Compensation for the Exploration of Mineral Resources (“CFEM” in Portuguese). According to the Brazilian Federal Constitution, this compensation must be calculated over the value derived from the mining activity. Following constitutional requirements, not all of them adequately reflected in infraconstitutional laws, the compensation must be calculated over: (i) net revenues, when mineral resources are subject to third-party sale; (ii) costs of mining, when mineral resources are subject to internal consumption; and (iii) net revenues according to transfer pricing rules (PECEX), when mineral resources are subjected to intra-group international sales. Vale strictly follows all constitutional rules regarding the matter,
- State taxes on mineral production (“TFRM” in Portuguese),
- Tax for control, monitoring and surveillance of water resources exploitation and utilization activities (“TFRH” in Portuguese).



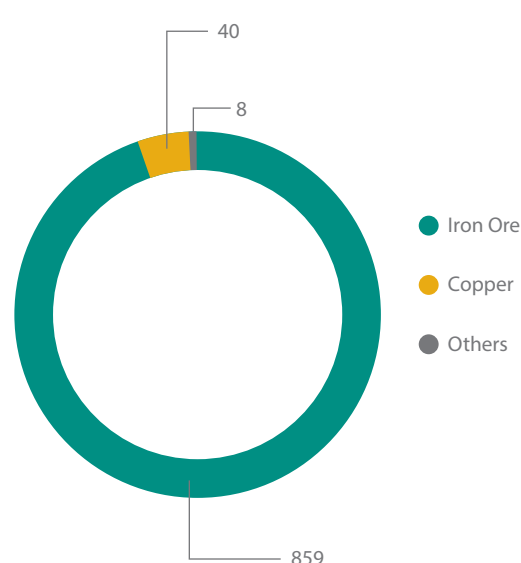
Vale in Brazil has an effective tax rate of 4.20% for taxes on mining and, in 2019, this equated paid US\$ 906.95 million to the Brazilian authorities.

Distribution by level of government



Values in millions (US\$).

Commodities



Values in millions (US\$).

Mining tax by commodities						
Commodities	CFEM	Tax rate	TFRM and TFRH	Tax rate	Total	Tax rate
Iron Ore	698,186	3.5%	160,776	0.8%	858,962	4.4%
Copper	39,045	2.0%	971	0.1%	40,015	2.1%
Others	6,068	2.8%	1,906	0.8%	7,974	3.8%
Total	743,298		163,653		906,951	4.20%

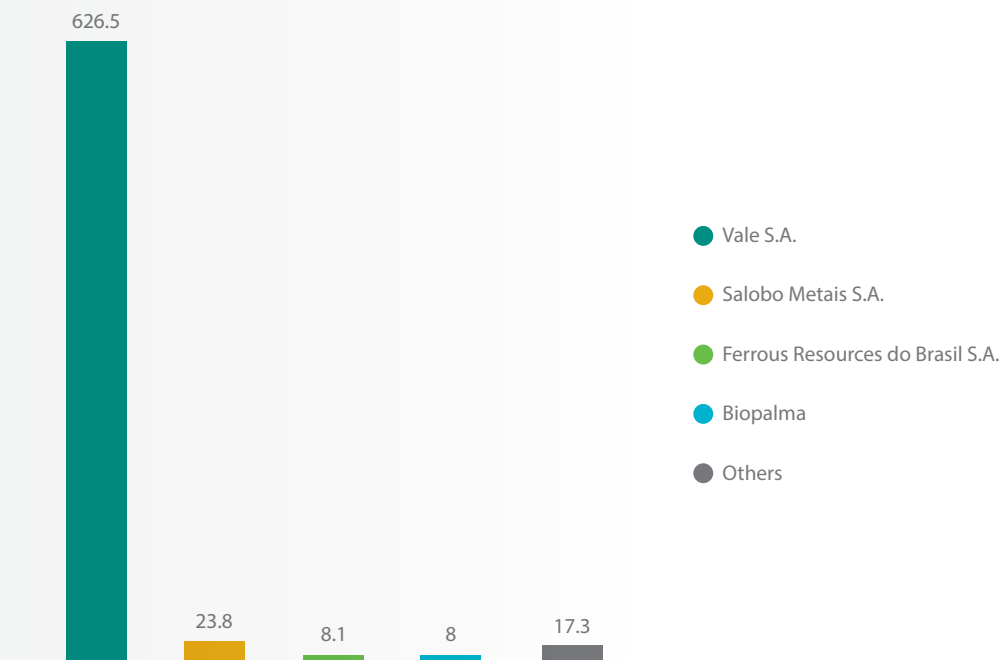
5.2.3. Payroll taxes

This category comprises taxes imposed on employers or employees, and generally includes two categories: deductions from an employee’s wages, and taxes paid by the employer based on the employee’s wages.

One of our [three core commitments](#) is to place the safety of people and the environment at the core of our business decisions, acting with respect, care, and integrity. Our purpose is to build a positive social, economic, and environmental legacy in areas where we operate. With more than 110,000 employees in Brazil, we continually engage in generating employment and social transformation here.

In 2019, payroll taxes contributed US\$684 MM to the Brazilian government.

Payment by company



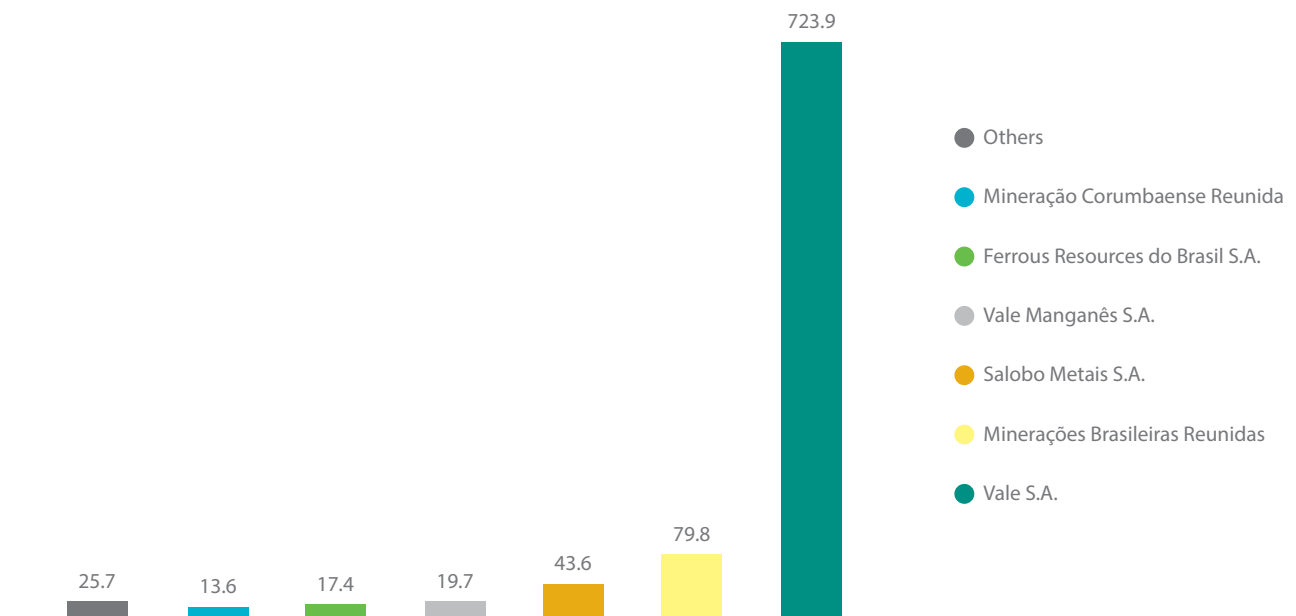
Values in millions (US\$).

5.2.4. Tax on products and services

This category comprises customs duties and taxes on international transactions, indirect taxes on the production or sales of goods and services and revenue based indirect taxes.

In 2019, taxes on products and services contributed US\$ 923 million to the Brazilian government, about 79% (US\$ 723 million) of these were paid by Vale S.A.

Payment by company



Values in millions (US\$).

5.2.5. Other taxes

Diverse payments to Brazilian tax authorities, such as fees, taxes on vehicles and real properties, among others, comprise the “other taxes” category totaling US\$ 27 million. These payments include withholding income tax over interest on shareholders’ equity, and debentures distributions made by Vale in 2019⁸.

Payment by company



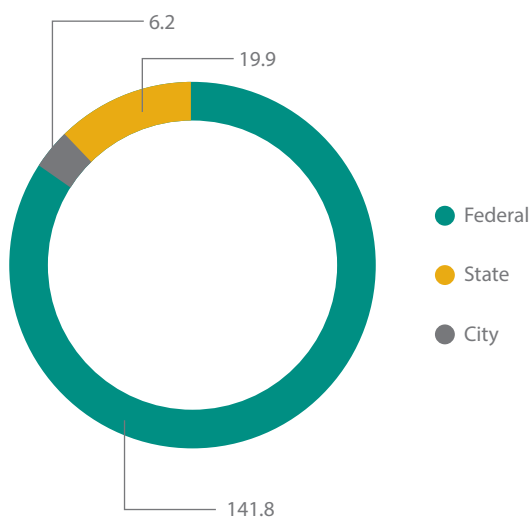
Values in millions (US\$).

8 More details on the interest on shareholders’ equity and debentures mechanism can be found in [Vale’s 20F report](#).

5.3. Contribution in Indonesia

In Indonesia, Vale produces 75,000 tons of nickel-in-matte per year, supplying 5% of the world's nickel demand and employing more than 3,000 people. Vale signed a Contract of Work with the Government of Indonesia in 1968 to explore mine and process nickel ore, and has been contributing to the economy there ever since. Vale also undertakes significant environmental programs in Indonesia, including reforestation efforts and a revegetation program to provide the opportunity to reintroduce native plant species. Vale's Indonesian operations are also investing in greenhouse gas emissions reduction initiatives and working to align with the policies and frameworks of the International Council on Mining and Metals (ICMM).

Level of government



Values in millions (US\$).

Total taxes: US\$ 167,9 MM



Corporate income taxes

US\$ 58.6 MM



Tax on mining

US\$ 22.6 MM



Payroll taxes

US\$ 11.8 MM



Tax on product and service

US\$ 38.6 MM



Other taxes

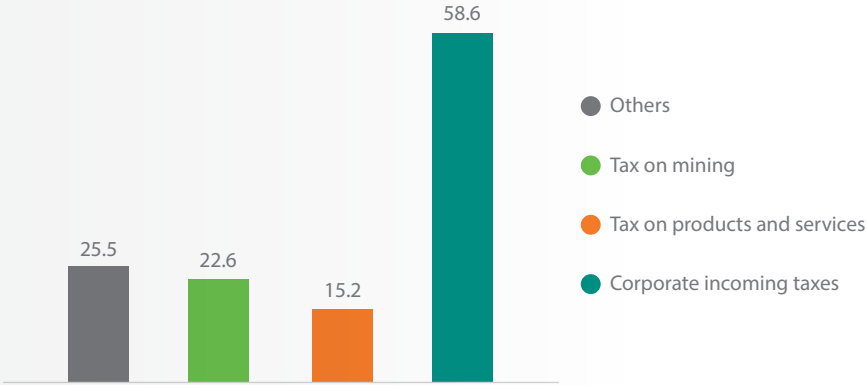
US\$ 36.4 MM



Number of employees

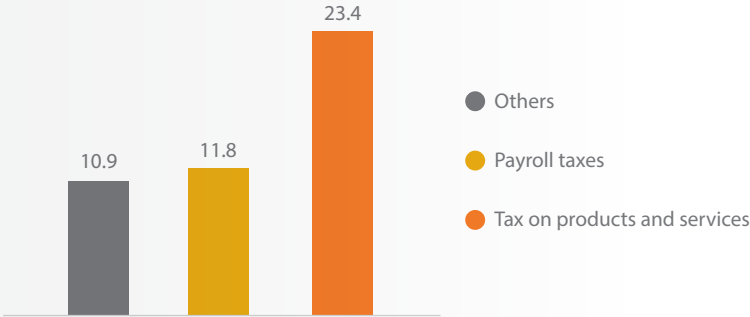
3,095

Tax borne



Values in millions (US\$).

Tax collected



Values in millions (US\$).

5.4. Contribution in Canada

In Canada, Vale produces high quality nickel, one of the most versatile metals in existence known for its use in batteries and metal coatings. We also produce copper, cobalt, platinum group metals and precious metals at 3 operations in Canada: 5 mines and processing facilities in Ontario; mine and mill in Manitoba; and mine and processing facilities in Newfoundland and Labrador. In 2019, Vale employed over 9,000 people across Canada. Vale works to align its operations in Canada with the goals and objectives of both the International Council on Mining and Metals as well as the Towards Sustainable Mining Initiative (TSM) of the Mining Association of Canada. Vale's environmental work in Canada includes reforestation and land reclamation as well as efforts to reduce carbon and greenhouse gas emissions.

- Our Canadian entities paid US\$ 6.37 million amount in taxes on mining in 2019 and received a refund of US\$ 1.83 million in corporate income Tax. This refund was due to large revised tax losses carried forward from prior years, and also due to the offset of depreciation and processing allowances against taxable profits within the year.
- We typically receive substantive tax refunds on indirect taxes on the production or sales of goods and services in Canada, which in 2019 contributed to the US\$ 192 million refund in this category. This is because we pay value added taxes on purchases from our suppliers in Canada, while the goods that we export are subject to a zero-rated value added tax. Vale therefore fully recovers value added tax paid on purchases.

Total taxes: US\$ 79.7 MM



Corporate income taxes

US\$ (1.83) MM



Tax on mining

US\$ 6.37 MM



Payroll taxes

US\$ 237.92 MM



Tax on product and service

US\$ (192.05) MM



Other taxes

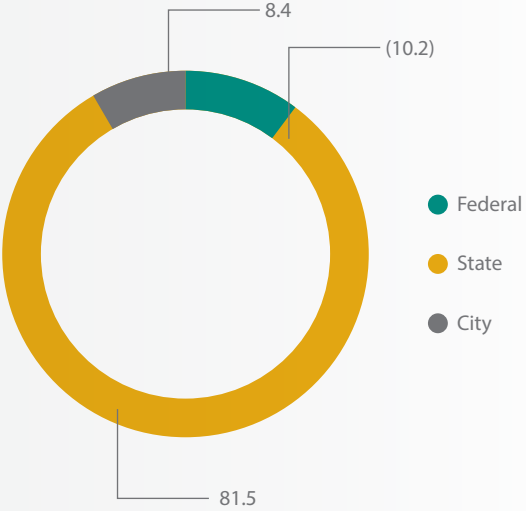
US\$ 29.27 MM



Number of employees

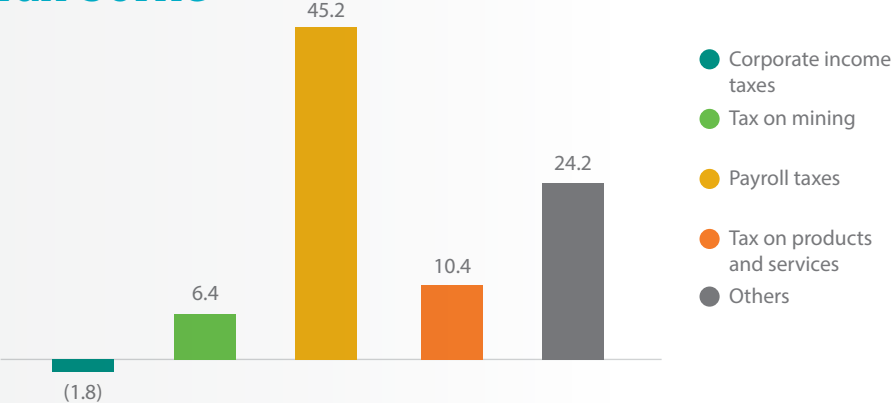
9,970

Level of government



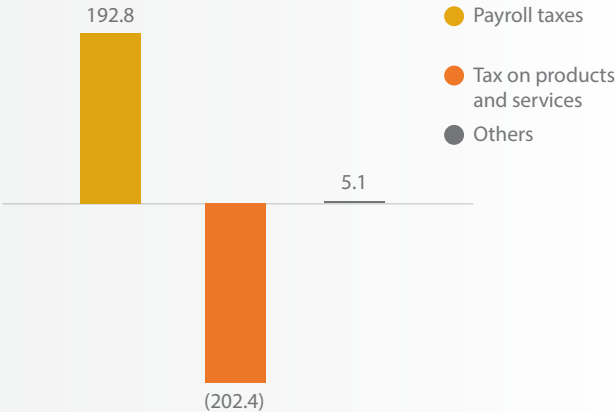
Values in millions (US\$).

Tax borne



Values in millions (US\$).

Tax collected

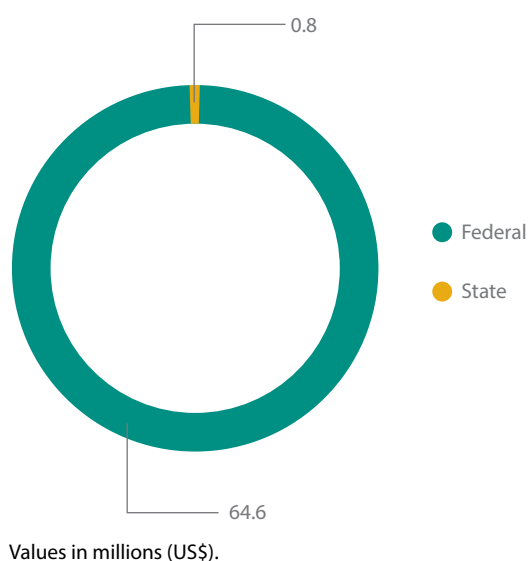


Values in millions (US\$).

5.5. Contribution in New Caledonia

In New Caledonia, Vale produces nickel and cobalt, and is responsible for extracting laterites and saprolites. We operate in the Goro plateau and our operations consist of a mine, a port and a power plant. In line with one of our five strategic environmental, social and governance (ESG pillars), to keep on track with the transformation of the Base Metals business unit, we announced in December 2019 our intention to exit our operations in New Caledonia. The proposed sale has not yet been concluded, however the arrangement includes a financial package from Vale to support the ongoing continuity of the operations, alongside an agreement to pursue further financial support from the French government.

Level of government



Total taxes: US\$ 65,38 MM

 **Corporate income taxes** < US\$ 0.1 MM

 **Tax on mining** US\$ 0.35 MM

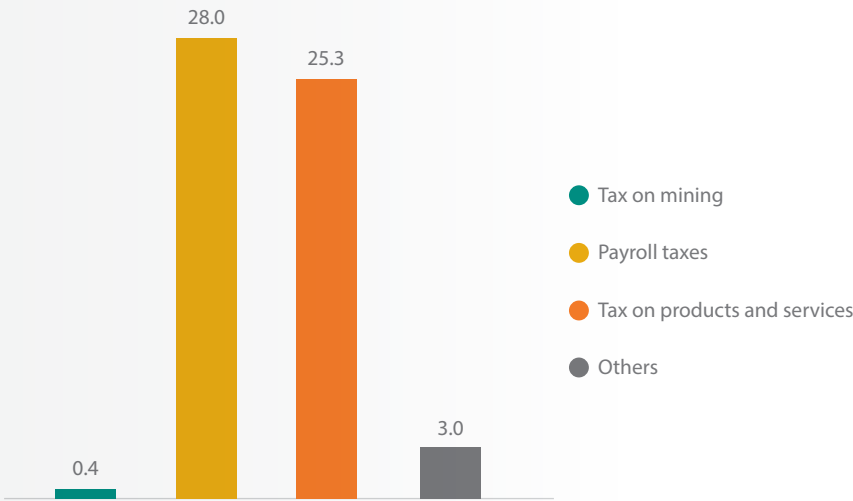
 **Payroll taxes** US\$ 39.02 MM

 **Tax on product and service** US\$ 26.11 MM

 **Other taxes** < US\$ (0.1)

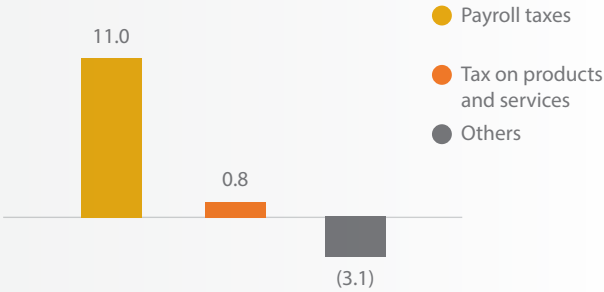
 **Number of employees** 2,449

Tax borne



Values in millions (US\$).

Tax collected



Values in millions (US\$).

5.6. Contribution in Mozambique

Vale has operated in Mozambique since 2011, extracting metallurgical and thermal coal from the Moatize Mine in the north-west region of the country. The Moatize Mine has an estimated production capacity of 22 million tons, and serves markets across Asia, Africa, Europe and the Americas. Vale's operations generate more than 9,500 jobs in Mozambique in its mining and logistics operation.

Metallurgical coal is used to transform iron ore into steel, one of the most versatile and widely used materials in the world. Thermal coal is used for electricity generation.

Through a joint venture we have invested significantly in improving local infrastructure – for example the 912km Nacala Corridor Railroad connecting the Moatize Mine to the deep-water port of Nacala, benefiting the whole north of Mozambique with cargo and passenger trains, connecting people and markets.

Vale has a consistent social investment portfolio, with more than \$7.1m invested yearly, benefiting more than 10k families included in social programs ranging from agriculture, school feeding for 25,000 primary school students daily, fishing and capacity building initiatives. On the environmental side, sustainability training, marine preservation and mangrove restoration area are our primary focus.

As of 2019, a change in the VAT regulations established that all mining and oil & gas entities in Mozambique exporting 75% of their production do not have to pay input VAT related to domestic purchases. Therefore, the VAT paid by Vale in Mozambique in 2019 corresponds to VAT on imports, which is, in principle, recoverable due to the fact that coal exported is subject to a zero-rated VAT.

Total taxes: US\$ 35.8 MM



Corporate income taxes

US\$
0.01 MM



Tax on mining

US\$
10.12 MM



Payroll taxes

US\$
26.01 MM



Tax on product and service

US\$
(3.97) MM



Other taxes

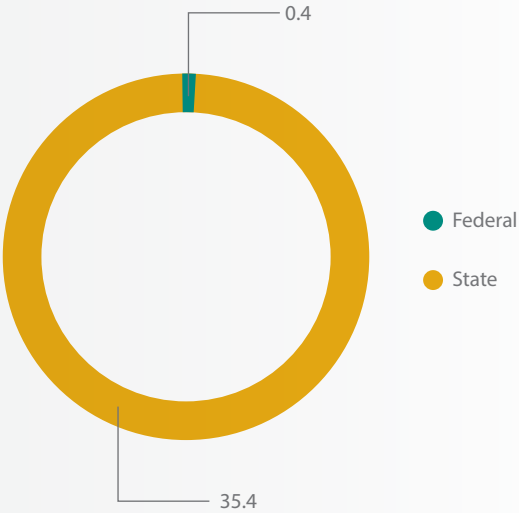
US\$
3.62 MM



Number of employees

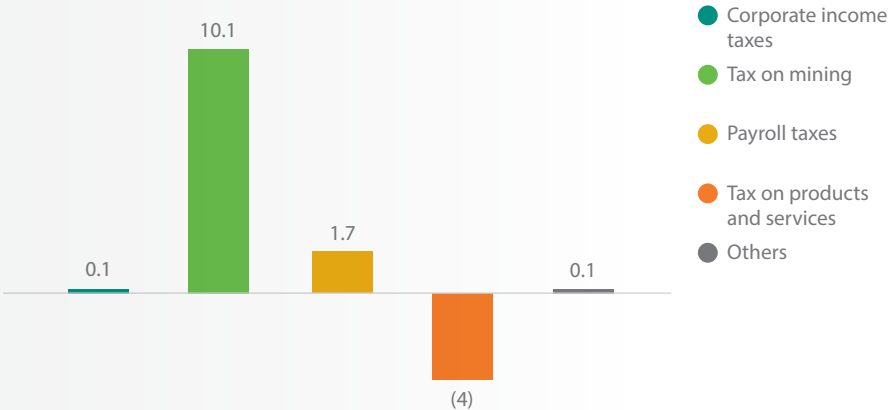
12,010

Level of government



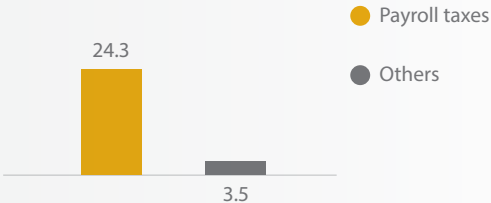
Values in millions (US\$).

Tax borne



Values in millions (US\$).

Tax collected



Values in millions (US\$).

5.7. Breakdown by jurisdiction and level of government

Vale is subject to taxation in the many jurisdictions in which it operates. The tax legislation of these countries may differ; nevertheless our approach to tax applies equally to all operations worldwide.

The table below details taxes and royalties paid in jurisdictions where Vale has a presence. Within each jurisdiction, total tax payments are reported by the national ("federal"), regional ("state") or local ("city") government to which they were paid.

The figures and analysis by jurisdiction and level of government in the tables below have been assessed in accordance with the basis of preparation in "[Appendix 1 – The basis on which this report was prepared](#)".

5.7.1. Tax borne

Jurisdictions	Corporate income tax	Tax on mining	Payroll taxes	Tax on products and services	Others	Total
Argentina	14		283	2	168	467
Federal	14		283	2	144	442
State					22	22
City				0	2	3
Australia			1,658			1,658
Federal			1,480			1,480
State			178			178
Austria	5,296		49	9		5,354
Federal	1,311		9			1,319
State	3,982		41	9		4,032
City	3					3
Barbados	10			0		10
Federal	10			0		10
Belgium	45					45
Federal	45					45
Brazil	1,709,282	906,951	414,359	626,115	10,638	3,667,345
Federal	1,709,282	743,298	414,359	177,413	2,943	3,047,295
State		163,653		440,207	318	604,178
City				8,495	7,377	15,872
Canada	(1,833)	6,371	45,159	10,356	24,189	84,242
Federal	(1,833)		17,686	(1,817)		14,035
State		6,371	27,473	12,173	15,788	61,805
City					8,401	8,401
Chile		219	24	277	14	535
Federal		219	24	277	14	535
China	17,982		1,590	274	2,013	21,859
Federal	17,982		1,590	274	2,013	21,859
France			18	0	7	25
Federal			18	0	7	25
India			69		241	311
Federal			69		241	311

Jurisdictions	Corporate income tax	Tax on mining	Payroll taxes	Tax on products and services	Others	Total
Indonesia	58,593	22,629		15,195	25,457	121,874
Federal	58,771	6,817		15,195	12,025	92,809
State		22			6,175	6,197
City	(179)	15,790			7,257	22,868
Japan	7,797		1,055		264	9,115
Federal	5,601		726		8	6,335
State	1,686					1,686
City	510		329		256	1,094
Luxembourg	65				150	214
Federal	65				150	214
Malaysia	291		1,290	72	1,363	3,016
Federal	291		1,290	72		1,654
State					1,363	1,363
Mozambique	9	10,124	1,729	(3,971)	99	7,990
Federal		3,933	378	(3,971)	23	363
State	9	6,192	1,351		76	7,628
New Caledonia	3	351	28,031	25,272	2,993	56,650
Federal	3	351	27,523	25,272	2,735	55,883
State			508		258	766
Oman	2,953		1,873	497	157	5,480
Federal	2,953		1,873	497	157	5,480
Paraguay			1,140	45	10	1,195
State			1,140	45		1,185
City					10	10
Peru	50	773	197	31	(10)	1,040
Federal	50	773	197	31	(10)	1,040
Singapore	3,123		769	52	(13)	3,931
Federal	3,123		769	52	(13)	3,931
South Africa	42					42
Federal	42					42
Switzerland	26,280		1,357		334	27,971
Federal	68		1,357		334	1,759
State	26,212					26,212
Taiwan	(19)		19		7	6
Federal	(19)		19		7	6
United Arab Emirates					39	39
Federal					39	39
United Kingdom	6,555		1,956	25	614	9,149
Federal	6,555		1,956	25		8,536
City					614	614
United States	385		48		20	454
Federal			48			48
State	385				20	406
Uruguay			8		3	11
State			8		3	11
Total	1,836,923	947,418	502,683	674,251	68,755	4,030,030

Negative values refer to tax refunds by jurisdictions' tax authorities. • Values in thousands (US\$).

5.7.2. Tax collected

Jurisdictions	Payroll taxes	Tax on products and services	Others	Total
Argentina	348	(34)	322	636
Federal	348	(143)	322	527
State		109		109
Australia		554		554
Federal		554		554
Austria	112			112
State	112			112
Brasil	269,370	297,530	16,759	583,659
Federal	269,370	193,345	16,759	479,474
City		104,185		104,185
Canada	192,768	(202,408)	5,085	(4,555)
Federal	147,934	(173,377)	1,197	(24,245)
State	44,834	(29,031)	3,888	19,691
Chile	222		24	246
Federal	222		24	246
China	6,570	18,977	1,513	27,060
Federal	6,570	18,977	1,513	27,060
France	15	(7)		8
Federal	15	(7)		8
India	176		17	192
Federal	176		17	192
Indonesia	11,755	23,380	10,894	46,029
Federal	11,965	25,512	11,540	49,017
City	(210)	(2,132)	(646)	(2,988)
Japan	1,950	(41,337)	111	(39,276)
Federal	1,383	(41,337)	111	(39,844)
City	568			568
Malaysia	2,468	(941)	282	1,810
Federal	2,468	(941)	282	1,810
Mozambique	24,278		3,518	27,796
State	24,278		3,518	27,796
Netherlands	3			3
Federal	3			3
New Caledonia	10,988	835	(3,087)	8,735
Federal	10,988	835	(3,087)	8,735
Oman	1,029		160	1,189
Federal	1,029		160	1,189
Paraguay	622	46	473	1,141
State	622	46	473	1,141
Peru	722	140	27	890
Federal	722	140	27	890
Singapore	778	(175)	0	603
Federal	778	(175)	0	603

Jurisdictions	Payroll taxes	Tax on products and services	Others	Total
Switzerland	3,115	80		3,194
Federal	1,365	80		1,445
State	1,749			1,749
Taiwan	14	1	1	16
Federal	14	1	1	16
United Arab Emirates		1		1
Federal		1		1
United Kingdom	4,456	(139,911)		(135,456)
Federal	4,456	(139,911)		(135,456)
United States	196		1,043	1,239
Federal	174		1,043	1,216
State	22			22
Uruguay	12			12
State	12			12
Total	531,968	(43,269)	37,142	525,840

Negative values refer to tax refunds by jurisdictions' tax authorities. • Values in thousands (US\$).



6. Effective tax rate

Below we demonstrate our 2019 effective income tax rate (“ETR”). ETR is the percentage of income tax expense (or income if applicable) divided by the income (or loss if applicable) before income taxes.

Brazilian corporate tax law requires taxation on income on a worldwide basis (including profits generated from foreign subsidiaries) and, therefore, Vale’s income tax charge is calculated using the tax rate in Brazil at the end of the reporting period. The income tax liability shown in our consolidated financial statements is calculated by applying the difference between the Brazilian income tax rate and the local income tax rate of each jurisdiction where our subsidiaries operate and generate taxable income.

In 2019, our global ETR was 21.4%. Whereas, Vale S.A. ETR was 44%⁹. Both differed from the Brazilian statutory tax rate of 34% mainly due to:

- Unrecognized tax losses in the year (only for global ETR)
- Tax effect from the payment of interest on stockholders’ equity in Brazil, and
- Savings derived from tax incentives from our iron ore, pellets and base metals operations in the North and Northeast regions of Brazil.

9 More details on Vale S.A. ETR can be found on http://www.vale.com/PT/investors/information-market/financial-statements/FinancialStatementsDocs/BRGAAP%204T19_Final.pdf

In US\$ Millions	
Income (loss) before income taxes	(2,775)
Income taxes at statutory rates - 34%	944
Adjustments that affect the basis of taxes:	
Income tax benefit form interest on stockholders' equity (JCP)	601
Tax incentives (SUDAM,SUDENE)	189
Equity results	77
Additions of tax loss carryforward	25
Unrecognized tax losses of the year	(1,059)
Others	(182)
Total Tax Charge - Income (Expense)	595
Effective tax rate	21.4%
Current Tax	(1,522)
Deferred Tax	2,117
	595

We continue to manage the consequences of the Brumadinho Dam failure, and support the communities affected by it. The impact goes far beyond financial losses and further information about our activity and remediation plan can be found [here](#).

For the purpose of this financial report, we confirm that the costs associated with the event significantly impacted our 2019 year-end results, contributing to an accounting loss for the year. While we reported a loss, we calculated and paid income tax because the expenses arising from the event were, for the most part, recognized as provision.

In US\$ Millions	
Current Tax	(1,522)
Tax Paid from Prior Year	(225)
Tax Paid in 2020 from 2019	337
Contingent asset recognized	(121)
Others	128
Refis ("Appendix 2 – Glossary")	(433)
Total Tax Report*	(1,837)

*The amount includes US\$ 27 million of tax credits used in 2019, that are not affecting Vale's cash flow on [Financial Statement](#).



Independent auditor's report

To the Board of Directors and Shareholders
Vale S.A.

Opinion

We have audited the accompanying Selected Information in the Tax Transparency Report FY 2019 (the "Report") of Vale S.A. and its subsidiaries (the "Company"), which comprises the amounts in the table included in the section of the Report entitled "5.7.1 Tax Borne" and "5.7.2 Tax Collected" for the year ended December 31, 2019.

In our opinion, the Selected Information referred to above has been properly prepared, in all material respects, in accordance with the basis of preparation in Appendix 1 to the Report.

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Selected Information included within the Report. We are independent of the Company and its subsidiaries in accordance with the ethical requirements established in the Code of Professional Ethics and in the Professional Standards issued by the Brazilian Federal Accounting Council, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of matter

Basis of preparation of the Selected Information to the Report

We draw attention to Appendix 1 to the Report, which describes the basis of preparation of the Selected Information. The Report is prepared in accordance with a special purpose framework for providing reasonable assurance over total taxes paid by the Company in 2019. As a result, the Report may not be suitable for another purpose.

The Report does not comprise a full set of financial statements, prepared in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). Our opinion is not qualified in respect of this matter.

Responsibilities of management and those charged with governance for the Selected Information to the Report

Management is responsible for the preparation of the Selected Information in accordance with basis of preparation in Appendix 1 to the Report and for determining that the basis of preparation is acceptable in the circumstances. Management is also responsible for such internal control as they determine is necessary to enable the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error.

Those charged with governance are responsible for overseeing the financial reporting process of the Company and its subsidiaries.



Vale S.A.

Auditor's responsibilities for the Selected Information to the Report

Our objectives are to obtain reasonable assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Selected Information.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Selected Information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Company and its subsidiaries.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Company to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures of the Selected Information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance, in connection with the audit of the financial statements of the Company as at and for the year ended December 31, 2019, with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Rio de Janeiro, July 30, 2020

PricewaterhouseCoopers
Auditores Independentes
CRC 2SP000160/O-5

Patricio Marques Roche
Contador CRC 1RJ081115/O-4

Appendix 1 – The basis on which this report was prepared

This report is prepared from data derived from our internal control over financial reporting and from data recorded in our financial systems, being the same data used to prepare our consolidated financial statements, which are prepared in accordance with the International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB).

Taxes, royalties, and other payments to governments are presented in this report on a cash paid and cash received basis for the year ended December 31, 2019.

Functional and reporting currency

All our data about our subsidiaries are measured using the currency of the primary economic environment in which the entity operates (“functional currency”), which in the case of the Parent Company is the Brazilian real (“R\$”). For presentation purposes, this report is presented in United States dollar (“US\$”) we believe this is how international investors analyze company’s financial information. All payments included in this report expressed in currencies other than US\$ were translated for this Report at the exchange rate on the month each payment was made.

Basis of consolidation

This follows the same principles as the consolidated financial statements. All majority-owned subsidiaries in which we have both a share and management control are consolidated. Our variable interest entities in which we are the primary beneficiary are consolidated.

For the purpose of this report, only entities with tax payments were considered, which can be found in [“Appendix 3 – List of our Companies”](#).

Tax borne

Taxes borne are those that companies are required to pay to the government or a third party on its own behalf. A list of the taxes we have included in this category are:

Corporate income taxes

This comprises any tax on the business calculated on the basis of its profits, income or capital gains. Typically, these taxes would be reflected in corporate income tax returns made to governments, and tend to become payable, and are paid, either in the year the profits were made or up to one year later, depending on the local tax rules regarding timing of payments. The amounts include any payments on account, balancing payments, offsetting tax credits (e.g. PIS, COFINS) and settlements in relation to disputes. Where there is separate capital gains tax (e.g. on property, leases or shares), this should also be included within this amount. The total is the final cash amount payable, net of any double tax reliefs, losses brought forward etc. Withholding taxes on payments to overseas companies are included here, as they represent a burden to Vale.

Tax charged on payments of dividends or other distributions of profits are also included as corporate income tax. Typically, this tax is reflected in income tax returns made to governments and tends to become payable, and is paid, at the point of a distribution of profits from one territory to another rather than in the year the profits actually arise. Taxes are withheld on payments to overseas companies. This includes taxes that are withheld at source or deducted from payments made to non-resident Vale companies and some resident Vale companies. Typically, this tax includes intercompany royalties, dividends and interest on overseas transactions.

Tax on Mining

This involves payments related to mineral activities within the jurisdictions, and can be split into three categories:

- 1. Taxes on minerals and metals extractions: This comprises taxes that are specific to the mining sector, and effectively represent payments to governments for extracting natural resources. This could include amounts related to aggregate use.
- License fees: These are fees paid in return for the

permission to exploit a certain resource or area in the jurisdiction.

- 3. Royalties: This comprises payments made to governments for activities such as the extraction of minerals or metals. Typically, these taxes tend to become payable, and are paid, in the year in which the activities occurred relate to.

Payroll taxes

This comprises both (i) employer social contributions and (ii) payroll and other taxes on employees.

Employer social contributions comprise contributions paid by the employer, towards the cost of certain state benefits in support of its employees. It can be a contributory system of insurance against illness and unemployment, and also provides retirement pensions and other benefits. Includes all types and classes payable, including those for overseas staff.

Payroll and other taxes on employees comprise payroll and employer taxes payable as a result of a company's capacity as an employer. Typically, these taxes would be reflected in payroll tax returns made to governments and tend to be payable, and are paid, on a regular basis (often monthly) throughout the year, shortly after the return is submitted.

Tax on products and services

- Customs duties and taxes on international transactions: This comprises all irrecoverable customs/ excise/ import/ export duties. Typically, these taxes tend to become payable, and are paid, to governments at the point where goods are imported and exported from territories and move across jurisdiction borders.
- Indirect taxes on the production or sales of goods and services
- This comprises sales tax, VAT and other taxes that arise on production or sale. Typically, these taxes would form part of a sales tax return made to governments and tend to become payable, and are paid, regularly (often monthly) throughout the year.
- Revenue based indirect taxes: This comprises any indirect taxes self-calculated and paid to the government on revenue or turnover (for example, PIS/COFINS in Brazil).

Other taxes

Comprises:

- Other fees: These are other miscellaneous payments to the government, which do not fall under a specific category such as fees, tax on vehicles and real properties
- Discretionary contributions: Discretionary contributions include optional payments to governments, such as contributing to investment, infrastructure or charities.
- Mandatory contributions: Mandatory contributions include penalties and fines which need to be paid to the government, and interest included within finance or administration expenses.
- Grants and subsidies received: A subsidy is a benefit given by the government to companies in the form of a cash payment or tax reduction, generally to help an industry or company. A grant is a financial award given by the federal, state or local government to an eligible grantee. Government grants are not expected to be repaid and do not include technical assistance or other financial assistance such as loans. This will appear as a negative number in taxes borne, as it is a payment received from the government.

Tax collected

These are taxes that we administer on behalf of the government and collect from others. Typically, these taxes would form part of a return made to a government and are payable and paid, regularly (often monthly) throughout the year, shortly after returns are submitted.

Payroll taxes

Comprises:

- Employee social contributions: Paid by workers and employers towards the cost of certain state benefits. It can be a contributory system of insurance against illness and unemployment, and also includes retirement pensions and other benefits. This should include all types and classes payable, including those for overseas staff.
- Employee income tax deducted through payroll: Comprises payroll and employee taxes withheld

from employee remuneration, and paid to governments, i.e. tax collected by Vale and remitted to governments on behalf of employees.

Tax on products and services

This includes VAT/GST or equivalent net paid/refunded amounts to and from the government. Typically, it is charged on the sales of goods and services and is recoverable from purchases. VAT/GST paid /recovered on import are also included. There is no net loss to the government for any taxes refunded. It also includes import taxes/VAT/GST on goods or services acquired and import tax paid to the tax authorities directly at the border (or indirectly through a deferment account or freight forwarder) when importing goods and services.

Other taxes

This category comprises any other indirect taxes levied on products either from your suppliers or invoiced to your customers.

It also comprises taxes that are withheld at the source or deducted from payments made to third parties, both domestic and overseas. Taxes are charged on payments of services and profit distributions. Typically, this tax is reflected in withholding tax returns made to governments and is payable monthly or periodically.

Other considerations related to preparing this report

Tax refunds or payments related to prior years

All refunds or payments are cash movements that are reflected in the year they are received, regardless of the year of assessment that they relate to.

Taxes under audit

Taxes under audit or dispute may not crystallize, which will lead to re-statements. These amounts are excluded until cash is paid or refunded.

Fines, penalties and interest

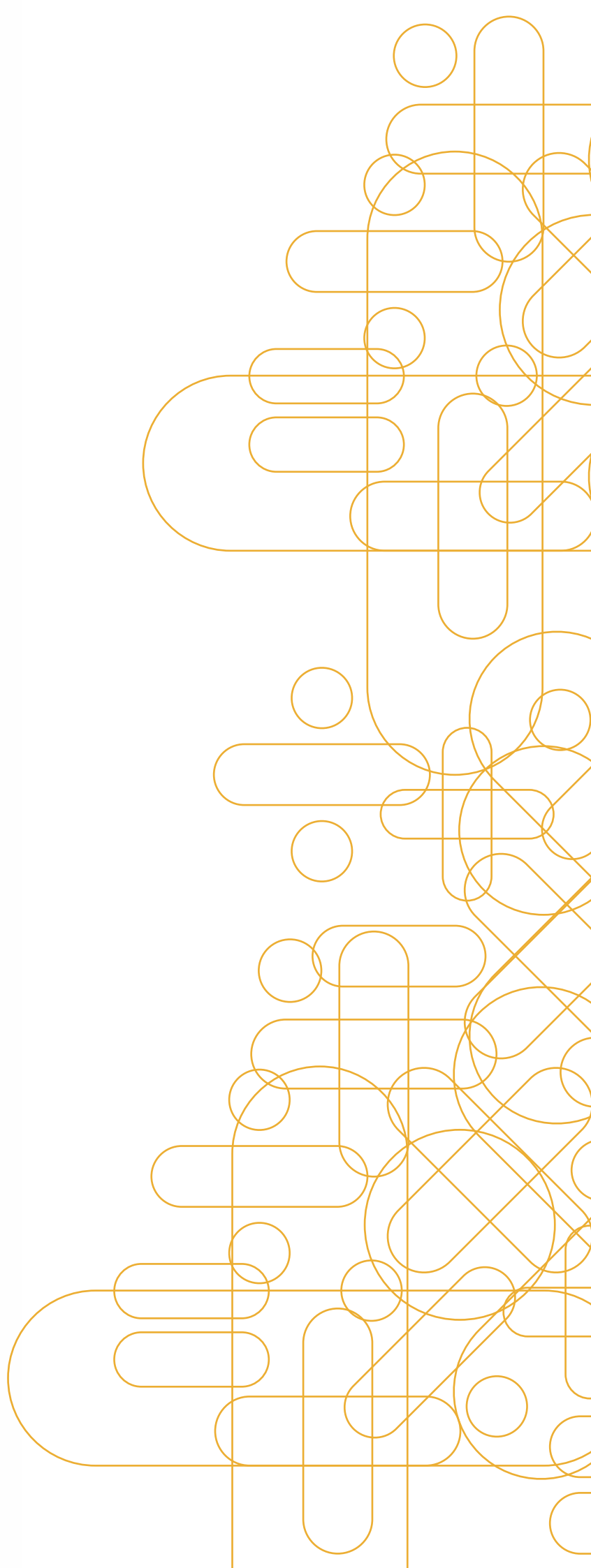
All fines, penalties and interest paid to the government have been included.

Tax credits

In some cases, tax credits from one type of tax can be used to settle liabilities of other taxes in future years.

In Brazil, Normative Instruction 1,717 of 2017 provides for the mechanism for refunding and offsetting federal tax credits. Thus, the taxpayer can claim its right to refund or use federal tax credits to settle tax debts (offset) by submitting an electronic request for returns or reimbursements and for compensation (PER/DCOMP) a tax refund/offset return to Brazilian Federal Revenue.

Tax credits represent a payment to the government in the year they are utilized.



| Appendix 2 – Glossary

Brazilian tax authorities

Any national, regional or local tax authority in Brazil. The Brazilian Federal Revenue Service (RFB) operates at the national level. State Finance Departments (SeFaz) and Municipal Finance Departments (SMF) operate at the regional and local level respectively.

CIT

The acronym for Corporate Income Tax.

CFC

A controlled foreign company. Under Brazilian legislation, CFCs are subject to the taxation of any statutory profit realized by group entities at a corporate income tax rate of 34%.

CFEM

The Portuguese acronym for *Compensação Financeira pela Exploração Mineral*. This is a financial charge to be paid to the Brazilian federal government as compensation for the using mineral resources. It is levied on the revenues from the sale of minerals extracted, net of taxes, insurance costs and costs of transportation. The current CFEM rates are: 3.5% for iron ore; 2% for copper, nickel and other materials; 3% for bauxite and manganese ore; and 1.5% for gold.

Current tax

As it is defined in the International Financial Reporting Standard IAS 12, current tax is the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period.

Deferred tax

As it is defined in the International Financial Reporting Standard IAS 12, deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences. Deferred tax assets are the amounts of income taxes recoverable in future periods in respect of:

- (a) deductible temporary differences;
- (b) the carryforward of unused tax losses; and

(c) the carryforward of unused tax credits.

ECF

The Portuguese acronym for *Escrituração Contábil Fiscal* (tax and accounting Return), a tax return that comprises corporate income tax computation and transfer pricing schedules, among other information. It must be submitted to the Brazilian Federal Revenue by most taxpayers on an annual basis.

Effective tax rate

Income tax expense (or income if applicable) divided by the profit (or loss if applicable) before tax.

Fees

Payments to governments charged on the initial or ongoing right to use an area for extractive activities. There is no specific government service is attached.

Government

Any national, regional or local authority of a jurisdiction governing body. Also includes any department, agency or undertaking that is a subsidiary undertaking where the authority is the parent undertaking.

GST

The acronym for Goods and Services Tax which is an indirect tax (or consumption tax) used on the supply of goods and services that is ultimately borne by the final consumer. A GST is collected by the retailer when the final sale in the supply chain is reached via a purchase by the end consumer. End consumers pay the sales tax on their purchases. Businesses issue resale certificates to their sellers when buying business supplies/inputs that will be resold since sales tax is not due. Tax jurisdictions do not receive the tax revenue until the sale is made to the final consumer.

Income Tax

The total of current tax and deferred tax.

Indirect tax

Taxes imposed on goods and services rather than on

income or profits. They can be passed on to another entity or individual. Examples include VAT, GST, sales tax and others. In Brazil, the examples are Tax on Industrialized Products (IPI in Portuguese) and the Tax on Operations Relating to the Movement of Goods and Interstate Transport Services for Intermunicipal and Communications (ICMS in Portuguese).

Iron ore pellets

Agglomerated ultra-fine iron ore particles of a size and quality suitable for specific iron producing processes. Our iron ore pellets range in size from 8 mm to 18 mm.

ISSQN

The Portuguese acronym for Tax on Services of Any Nature, which is imposed on any kind of services performed by companies or self-employed professionals, with a maximum rate of 5%, its assessment is based on the price of each services and also assessed on services provided by non-residents to Brazilian residents (import of services).

IPTU

The Portuguese acronym for Tax on Services of Any Nature, which is charged by the local municipality. IPTU is paid every year, by the owner of a house, building or land plot.

OECD

The acronym for the Organization for Economic Co-operation and Development (OECD). This is an intergovernmental economic organisation founded in 1961 to stimulate economic progress and world trade. The organization provides a forum and knowledge hub for data and analysis, exchange of experiences, best-practice sharing, and advice on public policies and [international standard-setting](#).

Ore

A rock, a natural solid material, from which a metal or mineral can be extracted.

PIS / COFINS

The Portuguese acronyms for Social integration plan (PIS) and Social Welfare Tax (COFINS) which are levied at different percentages on the company's gross revenues. There are two applicable regimes: cumulative - rates of 0.65% and 3%, respectively,

without any generation or use of credits; or non-cumulative - rates of 1.65% and 7.6%, respectively, with generation of credits in the acquisition of goods or services that can be offset with debts of the same contributions. Such contributions are also levied on the importation of services (with rates of 1.65% and 7.6%) and goods (with rates of 2.1% and 9.65%).

Project

Operational activities that are unique, governed by contract, license, lease, concession or similar legal agreements and that form the basis for payment of liabilities to a government. An activity is considered a project when multiple such agreements are substantially interconnected.

Refis

The portuguese name for the debt reduction or Settlement program of the Government related to the collection of federal taxes.

RFB

The Portuguese acronym for Brazilian Federal Revenue.

Tax

A compulsory financial charge, in order to contribute to state revenue or some other type of levy imposed upon a taxpayer by the government. It is required to be paid by law or by agreement.

Tax borne

Taxes borne are those that companies are required to pay to the government or a third party on its own behalf.

Tax collected

These are taxes that we administer on behalf of the government and collects from others. Typically, these taxes would form part of a return made to a government and are payable and paid, regularly (often monthly) throughout the year, shortly after the submission of returns.

Temporary differences

Differences between pre-tax statutory profit or loss and taxable income or loss for a given reporting period. These differences arises because the reporting

period in which some items of revenue and expense are included in determining of the pre-tax statutory profit or loss does not coincide with the reporting period in which they are included when determining of taxable income or loss.

TFRH

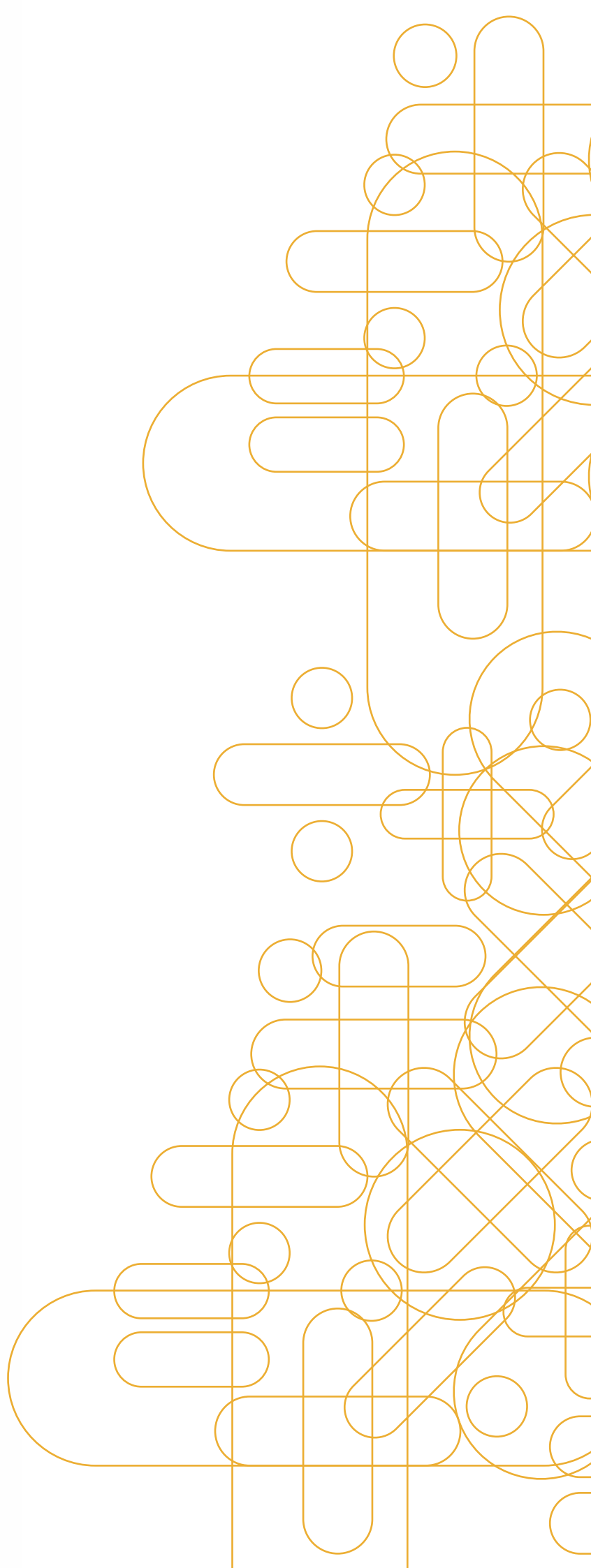
The Portuguese acronym for Tax for Control, Monitoring and Surveillance of Water Resources Exploitation and Utilization Activities. The purpose of this charge is to regulate the exploitation and utilization of water resources through taxation.

TFRM

The Portuguese acronym for an Analysis of the Rate for Controlling, Monitoring and Supervision of Exploration and Mining Activities of Mineral Resources. It is a tax imposed on several Brazilian states, including Minas Gerais, Pará and Mato Grosso do Sul, on mineral production. It is assessed at rates ranging from R\$0.50 to R\$3,575 per metric ton of minerals produced in or transferred from the state.

VAT

A value-added tax, which is an indirect tax (or consumption tax) levied on the supply of goods and services that is ultimately borne by the final consumer. VAT is collected by all sellers in each stage of the supply chain. Suppliers, manufacturers, distributors and retailers all collect the value added tax on taxable sales. Suppliers, manufacturers, distributors, retailers and end consumers all pay the VAT on their purchases. Businesses must track and document the VAT they pay on purchases in order to receive a credit for the VAT paid on their tax return. Tax jurisdictions receive the tax revenue throughout the entire supply chain as opposed to at the sale to the final consumer chain.



| Appendix 3 – List of our Companies

List of our Companies	
Company	Jurisdiction
Aços Laminados do Pará	Brazil
Biopalma	Brazil
Centro Tecnológico Soluções Sustentáveis S.A.	Brazil
Cia Paulista de Ferroliga	Brazil
CMM Overseas S.A.	Switzerland
Companhia Usina Tecpar	Brazil
CPBS	Brazil
CPP Participações S.A.	Brazil
Docepar S.A.	Brazil
EBM - Empreendimentos Brasileiros	Brazil
Empresa de Mineração Esperança S.A.	Brazil
Exide Group Incorporated	United States
Ferrous Resources do Brasil S.A.	Brazil
Florestas Rio Doce S.A.	Brazil
MBR - Minerações Brasileiras Reunidas	Brazil
Minas da Serra Geral S.A.	Brazil
Mineração Corumbaense Reunida S.A.	Brazil
Mineração Guanhões Ltda	Brazil
Mineração Jacuipe	Brazil
Mineração Manati Ltda	Brazil
Mineração Mato Grosso S.A.	Brazil
Minerações BR Holdings GmbH	Austria
Moatize Coal Investment (PTY) LTD	South Africa
Monticello Insurance Limited	Barbados
New Steel S.A.	Brazil
Potasio Rio Colorado S.A.	Argentina
PT Sumbawa Timur Mining	Indonesia
PT Vale Eksplorasi Indonesia	Indonesia
PT Vale Indonesia Tbk	Indonesia
Railvest Investments Inc.	Canada
Rio Doce Australia Pty Limited	Australia
Rio Doce International S.A.	Belgium
Salobo Metais S.A.	Brazil
Société Industrielle et Commerciale Brasilo-Luxembourgeoise Société Anonyme	Luxembourg
SRV Corporate SA	Switzerland
Tecnored Desenvolvimento Tecnológico S.A.	Brazil
Tiebaghi Nickel Branch	New Caledonia
Tiebaghi Nickel S.A.S.	France
Transbarga Navegación S.A.	Paraguay
Vale Americas Inc.	United States
Vale Asia Kabushiki Kaisha	Japan

List of our Companies

Company	Jurisdiction
Vale Base Metals Asia Pacific Pte. Ltd.	Singapore
Vale Canada Limited	Canada
Vale Emirates Limited	United Arab Emirates
Vale Energia	Brazil
Vale Europe Limited	United Kingdom
Vale Exploración Argentina S.A.	Argentina
Vale Exploraciones Chile Limitada	Chile
Vale Exploration Peru S.A.C	Peru
Vale Holdings B.V.	Netherlands
Vale Holdings B.V. (Branch)	Switzerland
Vale Holdings & Services AG	Austria
Vale India Private Limited	India
Vale International Holdings GmbH	Austria
Vale International S.A-DIFC	United Arab Emirates
Vale International SA	Switzerland
Vale International SA (Branch)	Singapore
Vale Japan Limited	Japan
Vale Limited	United States
Vale Logística de Argentina S.A.	Argentina
Vale Logística de Uruguay S.A.	Uruguay
Vale Malaysia Minerals Sdn Bhd	Malaysia
Vale Malaysia Sdn Bhd	Malaysia
Vale Manganês S.A.	Brazil
Vale Metais Básicos	Brazil
Vale Metals Shanghai Co., Ltd.	China
Vale Minerals China Co., Ltd.	China
Vale Mozambique S.A.	Mozambique
Vale Newfoundland & Labrador Ltd	Canada
Vale Nickel Dalian Co., Ltd.	China
Vale Nouvelle Calédonie S.A.S.	France
Vale Nouvelle-Calédonie Branch	New Caledonia
Vale Oman Distribution Centre LLC	Oman
Vale Oman Pelletizing Company LLC	Oman
Vale Power S.A.	Switzerland
Vale S.A.	Brazil
Vale Shipping Holding Pte Ltd.	Singapore
Vale Soluções em Energia S.A.	Brazil
Vale Switzerland SA	Switzerland
Vale Taiwan Limited	Taiwan
Vale Technology Development Limited	Canada
Vale Trading Shanghai Co., Ltd.	China
Valesul	Brazil

