

Breaches of Indigenous Communities' Rights in Brazil

Supply chain & financial links

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About this report

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Introduction

The research results summarized in this report are linked to cases of corporate activities negatively affecting indigenous communities in Brazil as researched by De Olho nos Ruralistas on behalf of AmazonWatch. The description of these cases is not part of the report.

Information on supply chain links has been sought in a variety of different sources, including company publications and shipment records that could be accessed for this research. Many of the selected facilities are linked to corporate groups operating in various locations. It was not always possible to find clear links with the specific facilities that have been identified by De Olho nos Ruralistas, owing to a lack of specific data availability from companies, trade data and other sources. In some instances, the identified company activities are not operational yet but still in planning or approval phase. Supply chain relationships included in this report may thus be linked to specific company projects affecting indigenous communities, or broader relationships of the corporate group.

In relation to financing relationships between the identified Brazilian companies and domestic as well as foreign financial institutions, information was sought in company publications, financial databases (Bloomberg, Refinitiv), company and mortgage registers, BNDES documentation on direct and indirect financing, from providers of specialized trade and project finance data, development finance institutions, and other relevant information sources.

Information on share- and bondholdings is provided for the most recent available filing dates retrieved from Refinitiv and Thomson EMAXX. Information on loans, credits, mortgages, and underwriting services is included for the period from January 2017 until the most recent available dates. Only loans and mortgages that have not yet reached maturity at the time of researching are included in the report. Similar as for the supply chain links, financial relationships have been researched for the companies directly linked to the identified cases as well as on the group level.

The report lists financial relationships with a selection of leading institutional investors and banks:

- Bank of America
- BlackRock
- Citigroup
- Dimensional Fund Advisors
- JPMorgan Chase
- Vanguard

Appendix 1 includes broader lists of top financial institutions linked to the selected companies.

1

Agro-commodities

The following sections map supply chain links between selected Brazilian producers of agro-commodities and larger customers in consumer markets, as well as financial relationships with the selected financial institutions.

1.1 Biopalma da Amazonia Reflorestamento Industria e Comercio

1.1.1 Supply chain links

Biopalma da Amazonia is operating as a Vale subsidiary. Its palm oil extraction plant, which has been operating since 2012, has a capacity of 25 tons / hour. The resulting B20 is used to increase self-sufficiency in refuelling Vale's own locomotives and machinery in Brazilian operations.¹

1.1.2 Financial links

See section 3.3 for Vale's financial relationships.

1.2 Cargill

1.2.1 Supply chain links

Cargill, an internationally operating agri-business company, operates a river terminal on the Amazon River in Santarém (Pará) for the export of soy. The terminal has an annual capacity of 5 million tonnes.² Trade data shows shipments from Santarém predominantly going to China. No consignees for soy exported by Cargill from this port could be identified. However, Cargill is one of the leading exporters of Brazilian soy when also considering other ports.³

1.2.2 Financial links

The research identified underwriting and unmatured credit provided to Cargill by the selected financial institutions as presented in Table 1. An overview of top-creditors is available in Table 23 in the Appendix.

Table 1 Cargill – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
JPMorgan Chase	United States	750	317	1,067
Bank of America	United States	750	150	900
Citigroup	United States	139	167	306
Total		1,639	634	2,273

Source: *Refinitiv* (2020, June), "Cargill: Loans", viewed in June 2020; *Refinitiv* (2020, June), "Cargill: Bond issuances", viewed in June 2020.

Table 2 lists the selected financial institutions owning or managing Cargill bonds. An overview of the top-25 institutional investors which own or manage bonds issued by Cargill is available in Table 24 in the Appendix.

Table 2 Cargill - selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
BlackRock	United States	66
JPMorgan Chase	United States	54
Vanguard	United States	24
Dimensional Fund Advisors	United States	1
Bank of America	United States	0
Total		144

Source: Thomson EMAXX (2020, June), “Bondholdings: Cargill and subsidiaries”, viewed in June 2020.

1.3 Cosan

1.3.1 Supply chain links

Cosan SA, otherwise known as the Cosan Group, is a publicly-listed company and a globally leading sugarcane and ethanol producer, processor and trader.⁴ Among the Group’s holdings is the joint venture with Dutch Royal Shell called Raízen, which produces and trades sugarcane derivatives (including ethanol), generates energy from sugarcane bagasse and distributes fuel, mainly through a network of gasoline stations under the Shell brand name.⁵ Raízen owns and operates three distribution units in Mato Grosso (and no mills).⁶

Trade data for the period from January 2019 to April 2020 shows shipments from locations in São Paulo state. Customers of sugar exports by Raízen Energia include:

- **CSC Sugar (U.S.)**

CSC Sugar supplies U.S. raw sugar refineries and claims to be one of the largest importers and exporters of refined sugar to and from North America.⁷ Analysis of trade data suggests that CSC Sugar received around 55,000 tonnes of sugar from Raízen Energia in the researched period from January 2019 to June 2020.

- **Nestlé (Switzerland)**

Nestléⁱ bought cane sugar directly from Raízen Energia SA (as well as its subsidiary Raízen Paraguacu Ltda) in 2019,⁸ who were sourcing cane sugar from Raízen units (either mills or distribution centres) in São Paulo and Mato Grosso do Sul. Raízen also supplied cane sugar to Nestlé via a Malaysian sugarcane processing company called Central Sugars Refinery.⁹

- **Wilmar International (Singapore)**

Wilmar – a leading commodity trader and one of the largest sugar traders in the world - lists Raízen as an ‘associate’ in its Global Connections page.¹⁰ This may be referring to RAW, a joint venture of Wilmar and Raízen, which in 2017 accounted for 21.1 percent of Brazil’s sugar exports, or 5.26 million tonnes.¹¹

ⁱ Note that Nestlé is the only Consumer Goods Manufacturer that currently discloses sugar supplier lists. Coca-Cola, Pepsico, Danone and Unilever – all significant sugar buyers – were also checked, but no disclosures could be found.

1.3.2 Financial links

The research identified underwriting and unmatured credit provided to Cosan at parent and subsidiary level by the selected financial institutions as presented in Table 3. An overview of top creditors is available in Table 25 in the Appendix.

Table 3 Cosan – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Citigroup	United States		125	125
JPMorgan Chase	United States	125		125
Bank of America	United States	21		21
Total		146	125	271

Source: *Refinitiv* (2020, June), “Cosan: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Cosan: Bond issuances”, viewed in June 2020; *Bloomberg* (2020, June), “Loan search”, viewed in June 2020; *Bloomberg* (2020, June), “Issuances”, viewed in June 2020.

Table 4 lists the selected financial institutions owning or managing Cosan shares. An overview of the top-25 institutional investors which own or manage shares issued by Cosan is available in Table 26 in the Appendix.

Table 4 Cosan - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	86
Vanguard	United States	64
Dimensional Fund Advisors	United States	22
JPMorgan Chase	United States	1
Total		173

Source: *Refinitiv* (2020, June), “Share ownership: Cosan SA”, viewed in June 2020.

Table 5 lists the selected financial institutions owning or managing Cosan bonds. An overview of the top-25 institutional investors which own or manage bonds issued by Cosan is available in Table 27 in the Appendix.

Table 5 Cosan - selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
BlackRock	United States	1
Total		1

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Cosan SA and subsidiaries”, viewed in June 2020.

1.4 JBS

1.4.1 Supply chain links

JBS is the largest beef producer in the world and an important exporter of beef. It has a daily slaughter capacity in Brazil of 33,000 heads in processing facilities throughout the country.¹²

1.4.2 Financial links

The research identified underwriting and unmatured credit provided to JBS at parent and subsidiary level by the selected financial institutions as presented in Table 6. An overview of all creditors is presented in Table 28 in the Appendix.

Table 6 JBS – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Citigroup	United States	44		44
Bank of America	United States	44		44
Total		88		88

Source: *Refinitiv* (2020, June), “JBS: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “JBS: Bond issuances”, viewed in June 2020; Bloomberg (2020, June), “Loan search”, viewed in June 2020; Bloomberg (2020, June), “Issuances”, viewed in June 2020.

Table 7 lists the selected financial institutions owning or managing JBS SA shares. An overview of the top-25 institutional investors which own or manage shares issued by JBS SA is available in Table 29 in the Appendix.

Table 7 JBS SA - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	238
Vanguard	United States	141
Dimensional Fund Advisors	United States	85
JPMorgan Chase	United States	2
Citigroup	United States	0.2
Total		467

Source: *Refinitiv* (2020, June), “Share ownership: JBS SA”, viewed in June 2020.

Table 8 lists the selected financial institutions owning or managing JBS Group bonds. An overview of the top-25 institutional investors which own or manage bonds issued by JBS SA is available in Table 30 in the Appendix.

Table 8 JBS - selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
BlackRock	United States	8
Dimensional Fund Advisors	United States	0.3
Total		8

Source: *Thomson EMAXX* (2020, June), “Bondholdings: JBS SA and subsidiaries”, viewed in June 2020.

2

Energy

The following sections map supply chain links between selected Brazilian energy producers and larger customers as well as financial relationships with the selected financial institutions.

2.1 Bom Futuro Energia

2.1.1 Supply chain links

Bom Futuro Energia is a Brazilian company that oversees the development and generation of hydroelectric plants, all seemingly located in Mato Grosso (MT). The company has 6 hydroelectric plants in operation and 2 in development according to its website.¹³ The company was founded in 2007 as part of the Bom Futuro Group, which is controlled by Erai Maggi Scheffer.

Erai Maggi Scheffer owns shares in 85 companies, most of which operate in agribusiness operations in MT.¹⁴ He has previously been called the “king of soya” for his large share of soybean landholdings in MT (over 200 thousand hectares in 2008).¹⁵ He is also the cousin of Blairo Maggi, former governor and senator of MT, who is the son of the late Andre Maggi, and current shareholder of the Brazilian agri-business giant Andre Maggi Group.¹⁶

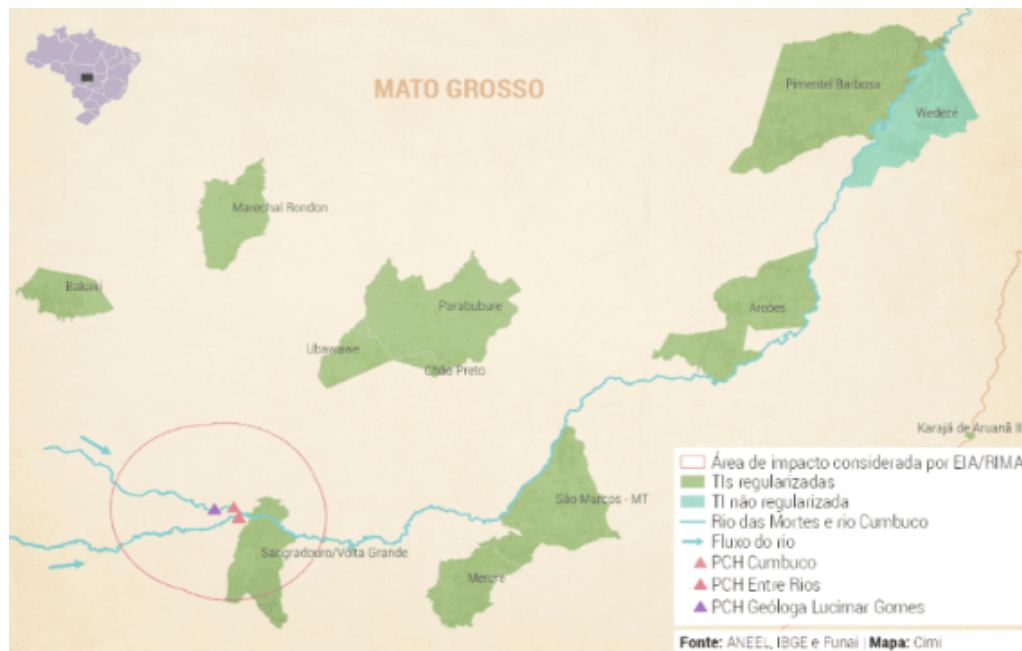


Figure 1 Location of Bom Futuro Energia hydroelectric plants

Source: Conselho Indigenista Missionario (2020) “Associações Xavante questionam “condução ilegítima” de consulta sobre hidrelétricas que afetam seus territórios”, viewed June 2020.

The Bom Futuro Energia SA project, under license from the Mato Grosso State Department of the Environment, have been developing three Small Hydroelectric Plants (SHPs) in Primavera do Leste, Mato Grosso: the Entre Rios SHP on the Rio das Mortes; the Cumbuco SHP and the Geóloga Lucimar Gomes SHP on the Rio Cumbuco.¹⁷

2.1.2 Financial links

No financial links could be identified for Bom Futuro Energia. Table 31 in the Appendix provides an overview of unmatured credit to Bom Futuro Agrícola, another subsidiary of Bom Futuro Group. This is financing from the Brazilian Development Bank (BNDES) through the respective intermediary in support of agricultural companies.

2.2 Centrais Eletricas Do Norte Do Brasil – Eletronorte

2.2.1 Supply chain links

Eletronorte is a subsidiary of the state-owned Eletrobras, the largest energy generator and transmitter in Brazil.

Eletronorte owns Eletrobras Amazonas Energia (formerly Manaus Energia), which manages the Balbina hydroelectric dam and power station in Presidente Figueiredo (Amazonas). The Balbina dam has a generation capacity of 250 MW, which is at least partially sold to Amazonas Energia to supply 25% of the electricity in Manaus, as well as the municipality of Presidente Figueiredo.¹⁸

2.2.2 Financial links

The research identified underwriting and unmatured credit provided to Eletrobras by the selected financial institutions in the analysed period as presented in Table 9. An overview of top creditors is available in Table 32 in the Appendix.

Table 9 Eletrobras - selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Total
Bank of America	United States	210	210
Citigroup	United States	90	90
Total		300	300

Source: *Refinitiv* (2020, June), “Eletrobras: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Eletrobras: Bond issuances”, viewed in June 2020; *IJGlobal* (2020, June), “Transactions: Eletrobras”, viewed in June 2020.

Table 10 lists the selected financial institutions holding or managing Eletrobras share. An overview of the top-25 institutional investors which own or manage shares issued by Eletrobras is available in Table 33 in the Appendix.

Table 10 Eletrobras – selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	66
Vanguard	United States	59
Dimensional Fund Advisors	United States	6
JPMorgan Chase	United States	0
Bank of America	United States	0
Citigroup	United States	0
Total		132

Source: *Refinitiv* (2020, June), “Share ownership: Eletrobras SA”, viewed in June 2020.

Table 11 lists the selected financial institutions owning or managing Eletrobras bonds. An overview of the top-10 institutional investors which own or manage bonds issued by Eletrobras is available in Table 34 in the Appendix.

Table 11 Eletrobras - selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
BlackRock	United States	30
JPMorgan Chase	United States	8
Total		38

Source: Thomson EMAXX (2020, June), “Bondholdings: Eletrobras and subsidiaries”, viewed in June 2020.

2.3 Energisa Mato Grosso Distribuidora de Energia (Energisa Group)

2.3.1 Supply chain links

Energisa Group is one of the main private companies in the Brazilian electricity market, involved in the generation, transmission and distribution of electricity.¹⁹ The Energisa subsidiary in Mato Grosso - Energisa Mato Grosso Distribuidora De Energia - operates a transmission and distribution network, as well as five thermoelectric generation plants, which are located in Colniza, Comodoro, Guariba, Paranorte and Rondolandia. The Company provides electric power for residential, industrial, commercial, rural, public lighting and public service consumers.²⁰

2.3.2 Financial links

The research identified underwriting provided to the subsidiary Energisa Mato Grosso by the selected financial institutions as presented in Table 12. An overview of top creditors is available in Table 35 in the Appendix.

Table 12 Energisa Mato Grosso – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Underwriting (US\$ mln)
Citigroup	United States	30
Total		30

Source: Refinitiv (2020, June), “Energisa Mato Grosso: Bond issuances”, viewed in June 2020; Bloomberg (2020, June), “Issuances”, viewed in June 2020.

Total underwriting provided by the selected financial institutions to the parent Energisa Group and its subsidiaries in the analysed period is presented in Table 13. An overview of top creditors is available in Table 36 in the Appendix.

Table 13 Energisa Group – Selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Underwriting (US\$ mln)
Citigroup	United States	131
Bank of America	United States	79
Total		210

Source: *Refinitiv* (2020, June), “Energisa: Bond issuances”, viewed in June 2020; *Bloomberg* (2020, June), “Issuances”, viewed in June 2020.

Table 14 lists the selected financial institutions owning or managing Energisa shares. An overview of the top-25 institutional investors which own or manage shares issued by Energisa is available in Table 37 in the Appendix.

Table 14 Energisa - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	76
JPMorgan Chase	United States	53
Vanguard	United States	49
Dimensional Fund Advisors	United States	16
Citigroup	United States	0
Total		194

Source: *Refinitiv* (2020, June), “Share ownership: Energisa”, viewed in June 2020.

An overview of the top-10 institutional investors which own or manage bonds issued by Energisa is available in Table 38 in the Appendix.

2.4 Equatorial Maranhão Distribuidora de Energia (Equatorial Energia)

2.4.1 Supply chain links

Equatorial Maranhão Distribuidora de Energia is one of the holdings under the group Equatorial Energia engaged in the generation, distribution and transmission of electricity in Brazil. It is responsible for the distribution of energy in Maranhão and Pará²¹, and in 2018 acquired an Eletrobras distribution arm in Alagoas.²² No specific customers could be identified.

2.4.2 Financial links

The research identified unmatured loans by BNDES provided to the subsidiary Equatorial Maranhão Distribuidora de Energia as presented in Table 39 in the Appendix. Total loans and underwriting provided to the parent Equatorial Energia and its subsidiaries in the analysed period are presented in Table 40 in the Appendix.

Table 15 lists the selected financial institutions owning or managing Equatorial Energia shares. An overview of the top-25 institutional investors which own or manage shares issued by Equatorial Energia is available in Table 41 in the Appendix.

Table 15 Equatorial Energia - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	354
Vanguard	United States	107
Dimensional Fund Advisors	United States	59
JPMorgan Chase	United States	14
Citigroup	United States	0

Investor Parent	Country	Shareholding (US\$ mln)
Total		535

Source: *Refinitiv* (2020, June), “Share ownership: Equatorial Energia”, viewed in June 2020.

An overview of the top-5 institutional investors which own or manage bonds issued by Equatorial Energia is available in Table 42 in the Appendix.

3

Metals and minerals

The following sections map supply chain links between selected Brazilian producers of metals and minerals and larger customers in consumer markets as well as financial relationships with the selected financial institutions.

3.1 Anglo American Niquel Brasil

3.1.1 Supply chain links

Anglo American Niquel, part of British-South African Anglo American Group, is the largest nickel mining company in Brazil and among the top-10 nickel producers globally.²³ Most stainless steel contains around 8 to 10 percent of nickel. Anglo American currently produces nickel at two locations in Goiás, Barro Alto and Niquelândia.²⁴ Anglo American, together with two Brazilian subsidiaries, has currently almost 300 research applications registered with the National Mining Agency that target 18 indigenous lands in the Amazon, some with the presence of isolated peoples.²⁵

Anglo American already supplies many of the leading steel producers globally with its nickel production from operational Brazilian mines:

- **Glencore (Switzerland)**

Glencore is one of the leading international commodity producers and traders with activities in more than 35 countries globally. Its operations encompass around 150 mining and metallurgical sites as well as oil production assets.²⁶ In the researched period from January 2019 to April 2020, trade data shows that Glencore received around 2,100 tonnes of ferronickel from Anglo American Niquel Brasil at locations in South Korea and Belgium.

- **North American Stainless (U.S.)**

North American Stainless (NAS) states to be the largest, fully integrated stainless-steel producer in the U.S. It is part of Acerinox Group (Spain).²⁷ Trade data shows that NAS received around 6,800 tonnes of ferronickel from Anglo American in Brazil in the period from January 2019 to April 2020.

- **Outokumpu (Finland)**

Outokumpu is one of the largest producers of stainless steel globally, with production units in several European countries and the U.S. Outokumpu's Tornio plant in Finland with a production capacity of 1.2 million tons of stainless steel per year is the only fully integrated stainless-steel facility in the world. Outokumpu also operates the Port of Tornio.²⁸ In the researched period from January 2019 to April 2020, trade data shows that Outokumpu received almost 11,000 tonnes of ferronickel from Anglo American Niquel Brasil.

- **Posco (South Korea)**

Posco was the 5th largest producer of steel globally in 2019.²⁹ According to trade data, Posco received around 28,000 tonnes of ferronickel at destinations in South Korea and China in the period from January 2019 to April 2020.

3.1.2 Financial links

The research identified underwriting and unmatured credit provided to Anglo American by the selected financial institutions as presented in Table 16. An overview of top creditors is available in Table 43 in the Appendix.

Table 16 Anglo American – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Citigroup	United States	432	375	807
JPMorgan Chase	United States		642	642
Bank of America	United States	66		66
Total top creditors		498	1,017	1,515

Source: *Refinitiv* (2020, June), “Anglo American: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Anglo American: Bond issuances”, viewed in June 2020.

Table 17 lists the selected financial institutions owning or managing Anglo American shares. An overview of the top-25 institutional investors which own or manage shares issued by Anglo American is available in Table 44 in the Appendix.

Table 17 Anglo American - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	2,887
Vanguard	United States	975
Dimensional Fund Advisors	United States	258
Total		4,120

Source: *Refinitiv* (2020, June), “Share ownership: Anglo American”, viewed in June 2020.

Table 18 lists the selected financial institutions owning or managing Anglo American bonds. An overview of the top-25 institutional investors which own or manage bonds issued by Anglo American is available in 0 in the Appendix.

Table 18 Anglo American - selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
BlackRock	United States	109
Vanguard	United States	19
Dimensional Fund Advisors	United States	2
Total top-25 bondholders		130

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Anglo American and subsidiaries”, viewed in June 2020.

3.2 Belo Sun Mineração

3.2.1 Supply chain links

Belo Sun's gold mining plans within indigenous lands in Pará are still in the prospecting phase. Its other gold projects in Brazil are also in the exploration or development stage.³⁰

3.2.2 Financial links

Table 19 lists the selected financial institutions owning or managing Belo Sun Mining Corp shares. An overview of the top-10 institutional investors which own or manage shares issued by Belo Sun Mining Corp is available in Table 46 in the Appendix.

Table 19 Belo Sun Mining Corp - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	4
Total		4

Source: *Refinitiv* (2020, June), "Share ownership: Belo Sun Mining Corp", viewed in June 2020.

3.3 Potassio Do Brasil

3.3.1 Supply chain links

The project is not yet in production phase.

3.3.2 Financial links

Based on publicly available resources, no financial links could be identified.

3.4 Vale

3.4.1 Supply chain links – Iron ore

Until 2018, Vale was the world's largest producer of iron ore and pellets. These are the raw materials to produce steel. Its iron ore mines are concentrated in Brazil.³¹ Vale lost its leading position to Australian Rio Tinto in 2019, as its production dropped in the aftermath of the collapsed tailings dam at its Brumadinho operation. Vale's total iron ore output in 2019 was 21.5 percent lower than in the previous year, with some projects in Brazil experiencing declines of more than 50 percent.³²

Vale ships iron ore from own port terminals, namely the Ponta da Madeira terminal in Maranhão and the Port of Tubarão in Espírito Santo.³³ Vale supplies many of the leading steel producers globally, including among other:

- **ArcelorMittal (India)**

ArcelorMittal was the world's largest producer of steel in 2019.³⁴ Trade data analysis shows that ArcelorMittal received more than 6 million tonnes of iron ore and pellets from Vale in the period from January 2019 to April 2020, shipped to various European destinations.

- **Posco (South Korea)**

Posco was the 5th largest producer of steel globally in 2019.³⁵ According to trade data, Posco received around 5 million tonnes of iron ore from Vale in the period from January 2019 to April 2020.

- **Nucor Steel (U.S.)**

Nucor Steel is one of the leading manufacturers of steel and steel products in the U.S. Key end markets include construction, energy and machinery & industrial equipment.³⁶ Trade data shows that Nucor Steel received around 2 million tonnes of iron ore from Vale in the period from January 2019 to April 2020.

- **Hyundai Corporation (South Korea)**

Hyundai Corporation provides a wide range of steel products, ranging from hot and cold rolled steel products to steel pipes and stainless steel. It is involved in the automobile industry, railway systems, shipbuilding, the supply of electric systems and various other industries.³⁷ Trade data analysis shows that Hyundai Corporation received almost 3 million tonnes of iron ore and pellets between January 2019 and April 2020.

- **ThyssenKrupp (Germany)**

ThyssenKrupp is a publicly listed industrial engineering and steel production company. With an annual production of over 13 million tons of crude steel, it is Germany's biggest and one of the world's leading suppliers of carbon steel flat products.³⁸ Analysis of trade data suggests that ThyssenKrupp received around 10 million tonnes of iron ore and blast furnace pellets from Vale in the period from January 2019 and April 2020 via the ports of Ponta da Madeira and Tubarão.

3.4.2 Supply chain links - Nickel

Brazil holds nearly 13% of the world's nickel reserves and Vale is the world's largest nickel producer. Its Onça Puma mine and operations located in Ourilândia do Norte (Pará) account for about 11% of Vale's nickel production.³⁹ The ferronickel sourced from Onça Puma is used as a feed material in stainless steel production.⁴⁰

The Onça Puma mine was halted since September 2017 and the nickel processing plant since June 2019 due to court injunctions won by indigenous communities. A court lifted the injunctions in September 2019. Before the closure, nickel production at the site reached 7,100 tons in the third quarter of 2017. During the processing ban, the company had continued to process nickel ore at the plant that was produced and stored at the site before the mining ban was enforced.⁴¹

- **Outokumpu (Finland)**

Outokumpu is one of the largest producers of stainless steel globally, with production units in several European countries and the U.S. Outokumpu's Tornio plant in Finland with a production capacity of 1.2 million tonnes of stainless steel per year is the only fully integrated stainless-steel facility in the world. Outokumpu operates also the Port of Tornio.⁴² In the researched period from January 2019 to April 2020, trade data confirms that Outokumpu's Tornio facility received regular shipments of ferronickel from Vale's Onça Puma operations in Ourilândia do Norte until June 2019, and starting again in January 2020, with a total volume of more than 9,000 tonnes.

- **ThyssenKrupp (Germany)**

ThyssenKrupp is an industrial engineering and steel production company. Its subsidiary Acciai Speciali Terni (AST) (Italy) is one of the largest producers globally of stainless-steel flat products. AST produces about 1 million tons of stainless steel per year.⁴³

In the researched period since January 2019, AST received several shipments of ferronickel from Vale's Onça Puma operations in Ourilândia do Norte until August 2019, totalling around 3,000 tonnes.

- **Schmolz & Bickenbach (Switzerland)**

Schmolz & Bickenbach claims to be the world's largest manufacturer, processor and distributor of special steel long products. Its French subsidiary Ugitech produces and sells a range of stainless-steel long products.⁴⁴ In the researched period from January 2019, Ugitech received several shipments of ferronickel from Vale's Ourilândia do Norte operations, with a total volume of around 3,000 tonnes.

3.4.3 Financial links

The research identified underwriting and unmatured credit provided to Vale by the selected financial institutions in the analysed period as presented in Table 20. An overview of creditors is available in Table 47 in the Appendix.

Table 20 Vale – selected creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)
Citigroup	United States	624
Bank of America	United States	87
JPMorgan Chase	United States	87
Total creditors		798

Source: Refinitiv (2020, June), “Vale: Loans”, viewed in June 2020; TradeFinanceAnalytics (2020, June), “Transaction search: Vale”, viewed in June 2020.

Table 21 lists the selected financial institutions owning or managing Vale shares. An overview of the top-25 institutional investors which own or manage shares issued by Vale is available in Table 48 in the Appendix.

Table 21 Vale - selected shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	3,941
Vanguard	United States	1,082
Dimensional Fund Advisors	United States	575
JPMorgan Chase	United States	185
Bank of America	United States	44
Citigroup	United States	41
Vanguard Capital	United States	0
Total		5,869

Source: Refinitiv (2020, June), “Share ownership: Vale”, viewed in June 2020.

Table 22 lists the selected financial institutions owning or managing Vale bonds. An overview of the top-25 institutional investors which own or manage bonds issued by Vale is available in Table 49 in the Appendix.

Table 22 Vale – selected bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Vanguard	United States	221
BlackRock	United States	51
JPMorgan Chase	United States	12
Dimensional Fund Advisors	United States	0
Total		283

Source: Thomson EMAXX (2020, June), “Bondholdings: Vale and subsidiaries”, viewed in June 2020.

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Appendix 1 Detailed overview of financial relationships

Cargill

Table 23 Cargill top creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
BNP Paribas	France	809	317	1,125
JPMorgan Chase	United States	750	317	1,067
HSBC	United Kingdom	809	167	975
Deutsche Bank	Germany	809	167	975
Bank of America	United States	750	150	900
Barclays	United Kingdom		317	317
Citigroup	United States	139	167	306
Société Générale	France	198	42	239
Mizuho Financial	Japan	198	42	239
Standard Chartered	United Kingdom	198		198
ING Group	Netherlands	198		198
Goldman Sachs	United States		150	150
Farm Credit Services Commercial Finance Group	United States	139		139
Credit Suisse	Switzerland	139		139
Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	139		139
Lloyds Banking Group	United Kingdom	139		139
Mitsubishi UFJ Financial	Japan	59	42	100
Rabobank	Netherlands	59	42	100
NatWest	United Kingdom	59		59
ABN Amro	Netherlands	59		59
United Overseas Bank	Singapore	59		59
ANZ	Australia	59		59
Oversea-Chinese Banking Corporation	Singapore	59		59
Westpac	Australia	59		59
BPCE Group	France	59		59
Total top creditors		6,000	2,000	8,000

Source: *Refinitiv* (2020, June), “Cargill: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Cargill: Bond issuances”, viewed in June 2020.

Table 24 Cargill top-25 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Prudential Financial (US)	United States	266
American International Group (AIG)	United States	187
MetLife	United States	148
Wellington Management	United States	114
State Farm	United States	107
Nationwide Mutual Insurance	United States	104
MassMutual Financial	United States	103
Legg Mason	United States	98
White Mountains Insurance	Bermuda	88
Macquarie Group	Australia	86
New York Life Insurance	United States	82
Principal Financial Group	United States	75
Western & Southern Financial	United States	69
BlackRock	United States	66
Goldman Sachs	United States	63
Voya Financial	United States	61
JPMorgan Chase	United States	54
Allstate	United States	53
Deutsche Bank	Germany	53
Thrivent Financial	United States	53
American Financial Group	United States	52
Aegon	Netherlands	51
Sun Life Financial	Canada	50
Liberty Mutual Insurance	United States	50
Power Financial Corporation	Canada	47
Total top-25 bondholders		2,179

Source: Thomson EMAXX (2020, June), “Bondholdings: Cargill and subsidiaries”, viewed in June 2020.

Table 25 Cosan top creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Itaú Unibanco	Brazil		633	633
Scotiabank	Canada	200		200
Santander	Spain	21	155	175
BTG Pactual	Brazil		172	172
Safra Group	Brazil		156	156
Morgan Stanley	United States	8	125	133
Bradesco	Brazil		125	125
BNP Paribas	France	125		125
Citigroup	United States		125	125
JPMorgan Chase	United States	125		125
Mizuho Financial	Japan	21		21
Mitsubishi UFJ Financial	Japan	21		21
HSBC	United Kingdom	21		21
Bank of America	United States	21		21
Rabobank	Netherlands	13		13
Total top creditors		575	1,490	2,065

Source: *Refinitiv* (2020, June), “Cosan: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Cosan: Bond issuances”, viewed in June 2020; Bloomberg (2020, June), “Loan search”, viewed in June 2020; Bloomberg (2020, June), “Issuances”, viewed in June 2020.

Table 26 Cosan top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
Bank of New York Mellon	United States	90
BlackRock	United States	86
Dynamo Administração de Recursos	Brazil	81
Vanguard	United States	64
Opportunity Asset Management	Brazil	52
Government Pension Fund Global	Norway	50
Bogari Capital	Brazil	48
Atmos Capital	Brazil	47
Orix Corporation	Japan	47
Dimensional Fund Advisors	United States	22

Investor Parent	Country	Shareholding (US\$ mln)
Itaú Unibanco	Brazil	19
Caisse de dépôt et placement du Québec	Canada	18
VELT Partners	Brazil	17
Credit Suisse	Switzerland	15
Constellation Asset Management	Brazil	13
Compass Group	United States	12
Nucleo Capital	Brazil	12
Deutsche Bank	Germany	12
PGGM	Netherlands	12
Petros	Brazil	12
Quatrinvest	Brazil	11
Fundação de Assistência e Previdência Social do BNDES - FAPES	Brazil	11
Caixa Econômica Federal	Brazil	10
First Trust Advisors	United States	9
Banco do Brasil	Brazil	8
Total top-25 shareholders		779

Source: *Refinitiv* (2020, June), “Share ownership: Cosan SA”, viewed in June 2020.

Table 27 Cosan top-25 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Fidelity Investments	United States	68
Oaktree Capital	United States	39
Equitable Holdings	United States	30
Sun Life Financial	Canada	29
Fidelity International	Bermuda	20
T. Rowe Price	United States	18
TIAA	United States	13
Moneda Asset Management	Chile	11
HSBC	United Kingdom	9
Standard Life Aberdeen	United Kingdom	9
Invesco	United States	8
Schroders	United Kingdom	8
MetLife	United States	6

Investor Parent	Country	Bondholding (US\$ mln)
Nationwide Mutual Insurance	United States	5
Waddell & Reed Financial	United States	4
TCW Group	Netherlands	3
Principal Financial Group	United States	3
UBS	Switzerland	3
Desjardins Group	Canada	3
Prudential Financial (US)	United States	3
Legal & General	United Kingdom	3
Banque Degroof Petercam	Belgium	2
Fuh Hwa Securities Investment Trust	Taiwan	2
Apollo Global Management	United States	2
BRL Trust Investimentos	Brazil	2
Total top-25 bondholders		301

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Cosan and subsidiaries”, viewed in June 2020.

Table 28 JBS Group top creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Barclays	United Kingdom	2,782	920	3,701
Royal Bank of Canada	Canada	1,661	495	2,155
BMO Financial Group	Canada	599	495	1,094
Truist Financial	United States	541	186	727
Santander	Spain	60	607	667
US Bancorp	United States	441	186	628
Rabobank	Netherlands	385	186	571
Banco do Brasil	Brazil		507	507
BTG Pactual	Brazil		457	457
Bradesco	Brazil		357	357
Farm Credit Services Commercial Finance Group	United States	326		326
Regions Financial	United States	60	78	138
Voya Financial	United States	133		133
Mizuho Financial	Japan		125	125
Deutsche Bank	Germany	117		117
Morgan Stanley	United States	44	59	102
Braseg Overseas Bank	Cayman Islands		100	100
Bank of Ireland	Ireland	93		93
Wells Fargo	United States	89		89
KeyCorp	United States	60		60
Compeer Financial	United States	44		44
Citigroup	United States	44		44
Bank of America	United States	44		44
Banco del Bajío	Mexico	25		25
Sociedad Anonima del Atlantico Compañía Financiera	Argentina	25		25
Grupo Financiero Multiva	Mexico	25		25
Volkswagen Financial Services	Germany	1		1
Mercedes Finance	Germany	0		0
Total		7,596	4,759	12,354

Source: *Refinitiv* (2020, June), “JBS: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “JBS: Bond issuances”, viewed in June 2020; IJGlobal (2020, June), “Transactions: JBS”, viewed in June 2020; Banco Nacional de Desenvolvimento (2020, May), *Operações contratadas na forma direta e indireta automática (2002 to April 30, 2020)*.

Table 29 JBS SA top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
BNDES	Brazil	3,734
BlackRock	United States	238
Algemeen Burgerlijk Pensioenfonds	Netherlands	192
Fidelity Investments	United States	144
Vanguard	United States	141
Itaú Unibanco	Brazil	132
Grantham Mayo Van Otterloo & Co	United States	94
Safra Group	Brazil	91
Dimensional Fund Advisors	United States	85
APG Group	Netherlands	58
Bradesco	Brazil	58
Caixa Econômica Federal	Brazil	46
Causeway Capital Holdings	United States	38
Banco do Brasil	Brazil	36
Miles Capital	United States	34
Occam Brasil	Brazil	33
Santander	Spain	33
Government Pension Investment Fund (GPIF)	Japan	32
Sharp Capital	Brazil	28
Fidelity International	Bermuda	25
Crédit Agricole	France	25
Grupo XP	Brazil	24
Credit Suisse	Switzerland	24
Bedrijfstakpensioenfond voor de Bouwnijverheid (BpfBOUW)	Netherlands	23
BrightSphere Investment Group	United States	22
Total top-25 shareholders		5,389

Source: *Refinitiv* (2020, June), “Share ownership: JBS SA”, viewed in June 2020.

Table 30 JBS Group top-25 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
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Investor Parent	Country	Bondholding (US\$ mln)
Fidelity Investments	United States	443
BlackRock	United States	279
JPMorgan Chase	United States	197
Waddell & Reed Financial	United States	158
Northwestern Mutual	United States	142
Algemeen Burgerlijk Pensioenfonds	Netherlands	103
Crédit Agricole	France	96
Thrivent Financial	United States	94
State Street	United States	76
Allstate	United States	75
Fidelity International	Bermuda	71
Prudential (UK)	United Kingdom	68
Lord, Abbett & Co	United States	65
TCW Group	Netherlands	63
New York Life Insurance	United States	62
Allianz	Germany	54
AXA	France	54
Sun Life Financial	Canada	51
Deutsche Bank	Germany	49
MassMutual Financial	United States	47
Principal Financial Group	United States	45
Oaktree Capital	United States	44
Royal Bank of Canada	Canada	43
BPCE Group	France	43
Cathay Financial	Taiwan	43
Total top-25 bondholders		2,463

Source: Thomson EMAXX (2020, June), “Bondholdings: JBS Group and subsidiaries”, viewed in June 2020.

Table 31 Bom Futuro Agrícola creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Investor Parent Country	Loans (US\$ mln)
John Deere Bank	United States	42
Bradesco	Brazil	1
Total		44

Source: Banco Nacional de Desenvolvimento (2020, May), *Operações contratadas na forma direta e indireta automática (2002 to April 30, 2020)*.

Table 32 Eletrobras top creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Santander	Spain		1,682	1,682
Itaú Unibanco	Brazil		417	417
Goldman Sachs	United States		417	417
BNDES	Brazil	328		328
Bradesco	Brazil		298	298
Bank of America	United States	210		210
Citigroup	United States	90		90
BTG Pactual	Brazil		72	72
Total top creditors		628	2,885	3,513

Source: *Refinitiv* (2020, June), “Eletrobras: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Eletrobras: Bond issuances”, viewed in June 2020; *IJGlobal* (2020, June), “Transactions: Eletrobras”, viewed in June 2020.

Table 33 Eletrobras top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
3G Radar	Brazil	141
Bank of New York Mellon	United States	133
SPX	Brazil	67
BlackRock	United States	66
Vanguard	United States	59
Itaú Unibanco	Brazil	53
Miles Capital	United States	50
Bradesco	Brazil	22
Constellation Asset Management	Brazil	16
Opportunity Asset Management	Brazil	16
Ujay Capital	Brazil	15
Azimut	Italy	15
Absolute Investimentos	Brazil	13
Navi Capital	Brazil	12
Banco do Brasil	Brazil	11
Occam Brasil	Brazil	11
V2 Investimentos	Brazil	10

Investor Parent	Country	Shareholding (US\$ mln)
JGP	Brazil	10
Vinci Partners	Brazil	8
First Trust Advisors	United States	8
Research Affiliates	United States	6
Credit Suisse	Switzerland	6
State Street	United States	6
Northern Trust	United States	6
Caixa Econômica Federal	Brazil	6
Total top-25 shareholders		766

Source: *Refinitiv* (2020, June), “Share ownership: Eletrobras SA”, viewed in June 2020.

Table 34 Eletrobras top-10 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Sun Life Financial	Canada	58
BlackRock	United States	30
Macquarie Group	Australia	21
Equitable Holdings	United States	16
Invesco	United States	13
Virtus Investment Partners	United States	12
Legg Mason	United States	11
T. Rowe Price	United States	11
Principal Financial Group	United States	10
Voya Financial	United States	10
Total top-10 bondholders		193

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Eletrobras and subsidiaries”, viewed in June 2020.

Energisa Mato Grosso Distribuidora de Energia

Table 35 Energisa Mato Grosso Distribuidora de Energia Creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Underwriting (US\$ mln)
Itaú Unibanco	Brazil	319
Bradesco	Brazil	67
Citigroup	United States	30
Total creditors		416

Source: *Refinitiv* (2020, June), “Energisa Mato Grosso: Bond issuances”, viewed in June 2020; *Bloomberg* (2020, June), “Issuances”, viewed in June 2020.

Table 36 Energisa creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Underwriting (US\$ mln)
Bradesco	Brazil	825
Itaú Unibanco	Brazil	729
Citigroup	United States	131
BTG Pactual	Brazil	98
Bank of America	United States	79
XP Investimentos	Brazil	23
Pentagono	Brazil	19
Arab Banking Corporation (Bank ABC)	Bahrain	12
Santander	Spain	11
Stocche Forbes Padis Filizzola	Brazil	11
Total creditors		1,937

Source: *Refinitiv* (2020, June), “Energisa: Bond issuances”, viewed in June 2020; *Bloomberg* (2020, June), “Issuances”, viewed in June 2020.

Table 37 Energisa top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
Itaú Unibanco	Brazil	1,541
Bradesco	Brazil	895
BlackRock	United States	76
Absoluto Partners Gestao de Recursos	Brazil	69
STK Capital	Brazil	68
JPMorgan Chase	United States	53
Opportunity Asset Management	Brazil	50

Investor Parent	Country	Shareholding (US\$ mln)
Vanguard	United States	49
Bogari Capital	Brazil	40
Bank of New York Mellon	United States	38
Constellation Asset Management	Brazil	36
Caisse de dépôt et placement du Québec	Canada	31
Bahia Asset	Brazil	25
VELT Partners	Brazil	23
Santander	Spain	21
Neuberger Berman	United States	17
Fundação CESP	Brazil	17
Government Pension Fund Global	Norway	16
Dimensional Fund Advisors	United States	16
Brasil Capital Equity Fund	Cayman Islands	13
Caixa Econômica Federal	Brazil	12
Ventor Investimentos	Brazil	11
Banco do Brasil	Brazil	11
Credit Suisse	Switzerland	10
Grupo Icatu	Brazil	10
Total top-25 shareholders		3,145

Source: *Refinitiv* (2020, June), “Share ownership: Energisa”, viewed in June 2020.

Table 38 Energisa top-10 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Itaú Unibanco	Brazil	0.07
Grupo XP	Brazil	0.05
SulAmérica Group	Brazil	0.03
JGP	Brazil	0.03
BNY Mellon	United States	0.03
G5 Partners	Brazil	0.02
Porto Seguro	Brazil	0.02
Brasil Plural	Brazil	0.02
BTG Pactual	Brazil	0.02
Grupo Icatu	Brazil	0.01

Investor Parent	Country	Bondholding (US\$ mln)
Total top-10 bondholders		0.30

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Energisa and subsidiaries”, viewed in June 2020.

Equatorial Maranhão Distribuidora de Energia

Table 39 Equatorial Maranhão Distribuidora de Energia Creditors
(Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)
BNDES	Brazil	315
Total creditors		315

Source: Banco Nacional de Desenvolvimento (2020, May), *Operations contracted in direct and indirect non-automatic form (2002 to April 30, 2020)*.

Table 40 Equatorial Energia creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
Banco do Nordeste do Brasil	Brazil	1,498	90	1,587
BNDES	Brazil	642		642
Santander	Spain	207	134	341
Itaú Unibanco	Brazil		264	264
Banco da Amazonia	Brazil	198		198
BTG Pactual	Brazil		189	189
Banco do Brasil	Brazil		102	102
Pentagono	Brazil		87	87
Standard Bank	South Africa		80	80
XP Investimentos	Brazil		51	51
Stocche Forbes Padis Filizzola	Brazil		6	6
Total creditors		2,545	1,004	3,548

Source: *Refinitiv* (2020, June), “Equatorial Energia: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Equatorial Energia: Bond issuances”, viewed in June 2020; *Bloomberg* (2020, June), “Loan search”, viewed in June 2020; *Bloomberg* (2020, June), “Issuances”, viewed in June 2020; Banco Nacional de Desenvolvimento (2020, May), *Operations contracted in direct and indirect non-automatic form (2002 to April 30, 2020)*; Equatorial Energia (n.d.), “Debt Raising”, online: <https://ri.equatorialenergia.com.br/en/informacoes-financeiras/endividamento/>, viewed in June 2020.

Table 41 Equatorial Energia top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
Squadra Investimentos	Brazil	564
Opportunity Asset Management	Brazil	554
BlackRock	United States	354
CPP Investment Board	Canada	287
Government Pension Fund Global	Norway	161
Vanguard	United States	107
Verde Asset Management	Brazil	85

Investor Parent	Country	Shareholding (US\$ mln)
Atmos Capital	Brazil	74
Absoluto Partners Gestao de Recursos	Brazil	71
Magliano	Brazil	64
Schroders	United Kingdom	64
Oceana Investimentos	Brazil	62
Itaú Unibanco	Brazil	61
Dimensional Fund Advisors	United States	59
Navi Capital	Brazil	58
Sharp Capital	Brazil	54
Capital Group	United States	53
Nucleo Capital	Brazil	52
Vontobel	Switzerland	51
Credit Suisse	Switzerland	45
BTG Pactual	Brazil	45
Fidelity Investments	United States	45
Caisse de dépôt et placement du Québec	Canada	36
Banco do Brasil	Brazil	36
Vinci Partners	Brazil	34
Total top-25 shareholders		3,075

Source: *Refinitiv* (2020, June), “Share ownership: Equatorial Energia”, viewed in June 2020.

Table 42 Equatorial Energia top-5 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
JGP	Brazil	0.04
Grupo Icatu	Brazil	0.03
Grupo XP	Brazil	0.02
Itaú Unibanco	Brazil	0.02
Banco do Brasil	Brazil	0.01
Total top-5 bondholders		0.12

Source: *Thomson EMAXX* (2020, June), “Bondholdings: Equatorial Energia and subsidiaries”, viewed in June 2020.

Table 43 Anglo American top creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)	Underwriting (US\$ mln)	Total
BNP Paribas	France	921		921
Mizuho Financial	Japan	432	375	807
Standard Chartered	United Kingdom	432	375	807
Royal Bank of Canada	Canada	432	375	807
Citigroup	United States	432	375	807
Barclays	United Kingdom	432	240	672
Commerzbank	Germany	432	240	672
HSBC	United Kingdom	432	240	672
Crédit Agricole	France	432	240	672
JPMorgan Chase	United States		642	642
Morgan Stanley	United States	432	130	562
ANZ	Australia	432	130	562
Goldman Sachs	United States	432	130	562
Westpac	Australia	367	130	497
Credit Suisse	Switzerland	367	130	497
Toronto-Dominion Bank	Canada	432		432
SMBC Group	Japan	432		432
Scotiabank	Canada	432		432
Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	432		432
CIBC	Canada	432		432
BMO Financial Group	Canada	432		432
UniCredit	Italy	432		432
ABN Amro	Netherlands	432		432
Santander	Spain	432		432
Bank of China	China	367		367
Total top creditors		10,800	3,753	14,553

Source: *Refinitiv* (2020, June), “Anglo American: Loans”, viewed in June 2020; *Refinitiv* (2020, June), “Anglo American: Bond issuances”, viewed in June 2020.

Table 44 Anglo American top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
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Investor Parent	Country	Shareholding (US\$ mln)
BlackRock	United States	2,887
Public Investment Corporation	South Africa	2,402
Silchester International Investors	United Kingdom	2,020
Toronto-Dominion Bank	Canada	1,713
Genesis Asset Management	United States	1,597
Tarl Investment	South Africa	1,362
Coronation Fund Managers	South Africa	1,063
Vanguard	United States	975
Schroders	United Kingdom	744
Legal & General	United Kingdom	436
DZ Bank	Germany	434
State Street	United States	412
State Administration for Foreign Exchange	China	328
Standard Life Aberdeen	United Kingdom	296
Bank of New York Mellon	United States	277
Dimensional Fund Advisors	United States	258
UBS	Switzerland	243
RWC Partners	United Kingdom	229
Fidelity Investments	United States	218
Sprucegrove Investment Management	Canada	200
Jupiter Fund Management	United Kingdom	200
Northern Trust	United States	188
Government Pension Fund Global	Norway	188
Affiliated Managers Group	United States	185
Wellington Management	United States	176
Total top-25 shareholders		19,032

Source: *Refinitiv* (2020, June), “Share ownership: Anglo American”, viewed in June 2020.

Table 45 Anglo American top-25 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Lord, Abbett & Co	United States	239
Prudential (UK)	United Kingdom	142
Legg Mason	United States	140
BlackRock	United States	109
Crédit Agricole	France	104
M&G	United Kingdom	82
Equitable Holdings	United States	78
Manulife Financial	Canada	56
T. Rowe Price	United States	51
BPCE Group	France	50
United Services Automobile Association	United States	50
American Equity Investment Life Holding	United States	49
Thrivent Financial	United States	48
Loews Corporation	United States	39
UBS	Switzerland	38
Baird	United States	38
Allianz	Germany	36
Aegon	Netherlands	35
TIAA	United States	33
The Hartford	United States	33
Principal Financial Group	United States	33
MetLife	United States	33
Power Financial Corporation	Canada	29
Voya Financial	United States	27
Liberty Mutual Insurance	United States	27
Total top-25 bondholders		1,601

Source: Thomson EMAXX (2020, June), “Bondholdings: Anglo American and subsidiaries”, viewed in June 2020.

Belo Sun Mining Corp

Table 46 Belo Sun Mining Corp top-10 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
Palmedo Holdings	United States	19
Royal Bank of Canada	Canada	10
BlackRock	United States	4
Konwave	Switzerland	2
Franklin Resources	United States	2
Gabelli Funds	United States	1
Deutsche Bank	Germany	1
Invesco	United States	1
ASA Gold and Precious Metals	United States	1
Triasima Portfolio Management	Canada	0
Total top-10 shareholders		40

Source: *Refinitiv* (2020, June), “Share ownership: Belo Sun Mining Corp”, viewed in June 2020.

Table 47 Vale creditors (Jan. 2017 to May 2020, US\$ mln)

Investor Parent	Country	Loans (US\$ mln)
Citigroup	United States	624
SMBC Group	Japan	624
Crédit Agricole	France	624
New Development Bank	China	300
Royal Bank of Canada	Canada	87
Mitsubishi UFJ Financial	Japan	87
Barclays	United Kingdom	87
Bank of America	United States	87
BMO Financial Group	Canada	87
Mizuho Financial	Japan	87
Bank of China	China	87
Scotiabank	Canada	87
Standard Chartered	United Kingdom	87
Banco do Brasil	Brazil	87
Toronto-Dominion Bank	Canada	87
HSBC	United Kingdom	87
JPMorgan Chase	United States	87
Total creditors		3,300

Source: *Refinitiv* (2020, June), “Vale: Loans”, viewed in June 2020; *TradeFinanceAnalytics* (2020, June), “Transaction search: Vale”, viewed in June 2020.

Table 48 Vale top-25 shareholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Shareholding (US\$ mln)
Capital Group	United States	6,051
BlackRock	United States	3,941
BNDES	Brazil	3,802
Bradesco	Brazil	3,774
Vanguard	United States	1,082
CAPEF - Caixa de Previdência dos Funcionários do BNB	Brazil	997
Caixa Econômica Federal	Brazil	854
Itaú Unibanco	Brazil	692

Investor Parent	Country	Shareholding (US\$ mln)
Dimensional Fund Advisors	United States	575
Invesco	United States	475
Standard Life Aberdeen	United Kingdom	447
Government Pension Fund Global	Norway	375
Banco do Brasil	Brazil	357
Orbis Group	Bermuda	321
Baillie Gifford	United Kingdom	253
APG Group	Netherlands	252
Morgan Stanley	United States	250
Fisher Investments	United States	226
Opportunity Asset Management	Brazil	200
Santander	Spain	189
JPMorgan Chase	United States	185
Renaissance Technologies	United States	179
UBS	Switzerland	177
AdamCapital Gestão de Recursos	Brazil	176
SPX	Brazil	167
Total top-25 shareholders		25,997

Source: *Refinitiv* (2020, June), “Share ownership: Vale”, viewed in June 2020.

Table 49 Vale top-25 bondholders (June 2020, most recent filing date, US\$ mln)

Investor Parent	Country	Bondholding (US\$ mln)
Cathay Financial	Taiwan	1,376
Fuh Hwa Securities Investment Trust	Taiwan	788
Allianz	Germany	334
Vanguard	United States	221
Fubon Financial	Taiwan	107
Legg Mason	United States	83
Manulife Financial	Canada	69
Baird	United States	63
Goldman Sachs	United States	59
BlackRock	United States	51
Muzinich & Co	United States	49

Investor Parent	Country	Bondholding (US\$ mln)
Globe Life	United States	36
Guardian Life Insurance Company of America	United States	33
National Life Group	United States	27
American Equity Investment Life Holding	United States	27
Munich Re	Germany	27
MetLife	United States	26
Macquarie Group	Australia	26
Equitable Holdings	United States	24
Deutsche Bank	Germany	21
State Street	United States	21
Hermes Investment Management	United Kingdom	20
TIAA	United States	20
Aegon	Netherlands	19
Morgan Stanley	United States	18
Total top-25 bondholders		3,546

Source: Thomson EMAXX (2020, June), “Bondholdings: Vale and subsidiaries”, viewed in June 2020.

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