

Complicity No. 17:

HOW MINING COMPANIES AND INTERNATIONAL INVESTORS DRIVE INDIGENOUS RIGHTS VIOLATIONS AND THREATEN THE FUTURE OF THE AMAZON



Cover image: Photo montage of the Pataxó marching to Brazil's Supreme Court during the vote on the "Marco Temporal" in Brasília, and an aerial view of the largest open pit mine in the world, Carajás, owned by Vale in Pará state.

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Complicity in Destruction IV

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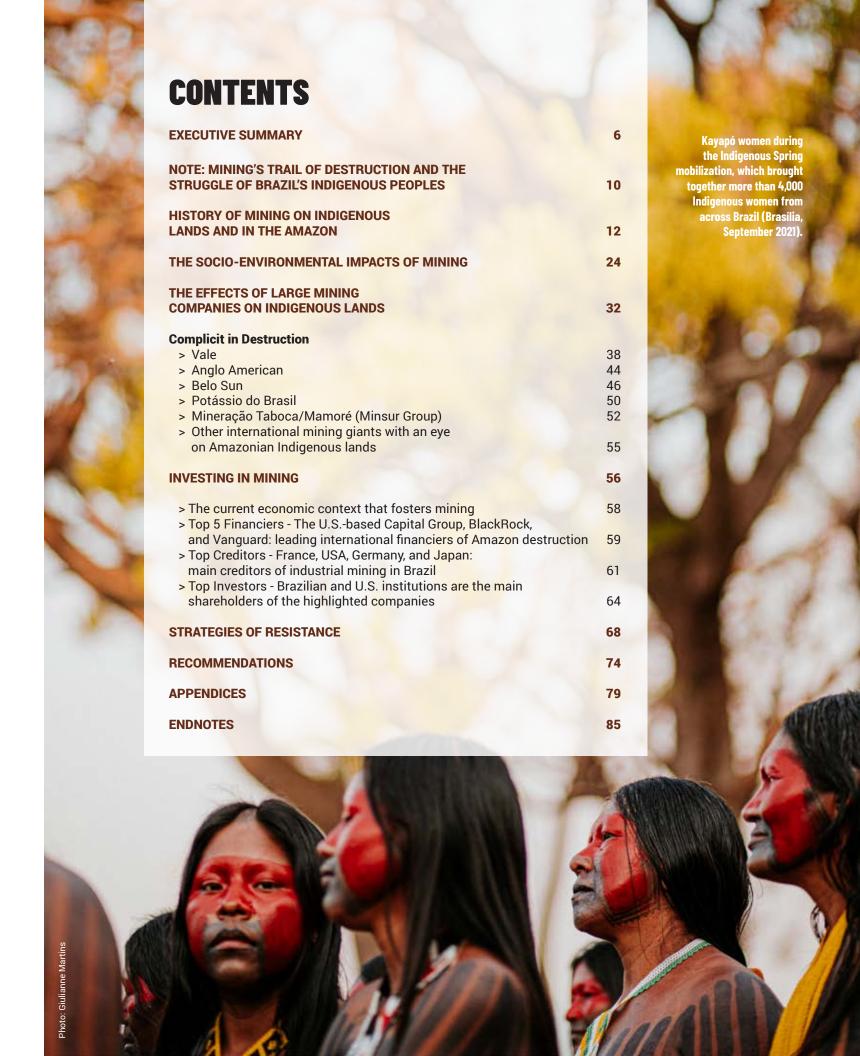
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This fourth edition of the Complicity in Destruction series, developed jointly by the Association of Brazil's Indigenous Peoples (APIB) and Amazon Watch, briefly summarizes the history of large-scale mining in Brazil, with particular focus on its encroachment upon Indigenous lands, and highlights the growing momentum that the activity has gained under the Bolsonaro administration. Mining contaminates rivers, degrades forests, leaves entire communities without access to water, and toxic mud can even destroy or sweep them away.. The vast and widely reported socioenvironmental disasters of Mariana and Brumadinho have already shown the world that mining – and the negligence of mining companies – can leave a trail of human rights violations and ecosystems in collapse. Today, this deadly industry casts its shadow over Brazilian Indigenous territories and the Amazon rainforest.

In Brazil, Indigenous territories refer to ancestral Indigenous areas that the Brazilian government has failed to recognize and demarcate. Indigenous Lands (ILs) refer to areas officially demarcated by the government. Mining is illegal in a range of additional protected regions, known as Conservation Units (CU) and Areas of Permanent Protection (APP). CUs include Protected Areas, national parks, and state national forests, among other areas, and APPs include river headwaters and ciliary forests.

In this report, we focus on industrial mining, defined as large-scale mineral extraction performed primarily by large companies that are backed by significant (primarily foreign) investments. The Amazon and its Indigenous territories are also threatened by the "garimpo": informal mining practices we refer to as illegal or wildcat mining, which are characterized by medium-to-large scale extractive operations, involving heavy machinery and complex logistics, and that entail significant investments that are difficult to trace. We differentiate the garimpo from "artisanal" gold mining, a small-scale subsistence activity. Both industrial mining and wildcat mining, when they encroach upon Indigenous Lands, are illegal in Brazil.

The unconstitutional opening of Indigenous lands to industrial and wildcat mining is one of the flagship initiatives of the Bolsonaro administration and one of the principal threats to Brazil's Indigenous peoples, as well as the vast preserved territories that they defend. This assault on Indigenous lands and lives is manifested in Bill 191/2020, which aims to permit industrial and wildcat mining on Indigenous lands where they are currently prohibited, by denying the right of native peoples to veto such activities. The bill contradicts the Brazilian Constitution and the internationally recognized right to self-determination of Indigenous peoples guaranteed by International Labor Organization (ILO) Convention 169. According

to researchers, the passage of Bill 191/2020 would drive the destruction of 160,000 square kilometers (16 million hectares) of Amazon rainforest – an area larger than England.

The impacts of mining are being felt even before the approval of this bill. Deforestation associated with mining in the Amazon increased 62% in 2021 when compared to 2018, the year that Bolsonaro was elected president of Brazil. Recent cases of industrial leaks in Maranhão and Amazonas continue a pattern of water and soil contamination that leads to the health deterioration of various Indigenous peoples and traditional communities. Mining is one of the most lethal activities for the defenders of the environment around the world, responsible for 722 cases of conflict and 17 deaths in 2020.

In addition to these grave impacts, the mining industry exacerbates climate change by causing up to 28% of the greenhouse gases released worldwide. Meanwhile, the government and private sector's aggressive push to open up Indigenous territories and protected areas (regions under the legal protection of the Brazilian government) to industrial exploration has created an explosion of illegal mining in the Amazon, with wildcat mining resulting in the destruction of the rainforest and violence against its peoples. At a time of climate crisis, it is important to draw attention to the toxic effects of these unbridled extractivist activities, particularly on Indigenous lands, which are key bastions of preserved forests and biodiversity.

APIB and Amazon Watch have condemned the encroachment of large mining companies into Indigenous territory since 2020, denouncing the mounting number of applications to mine on Indigenous lands submitted to Brazil's National Mining Agency (ANM). Complicity in Destruction IV exposes this further by partnering with the Mined Amazon project to map all existing applications to the ANM that impact Indigenous lands. Perhaps as a result of public scrutiny, the total number of such requests has fallen by half since the publishing of Complicity in Destruction III in 2020. However, the threat they represent is still significant. In November 2021, Mined Amazon identified 2,478 active mining applications overlapping 261 Indigenous lands in **the ANM system.** These applications were filed in the name of 570 mining companies, mining associations, and international groups that have applied to exploit 101,000 square kilometers (10.1 million ha) of land, an area almost as big as England.

Among the groups behind these applications, we highlight companies with a well-known history of impacts on Indigenous lands and peoples in Brazil and worldwide, and which benefit from deep connections with international financial capital. Our research explores the mining interests and financial ties of Vale, Anglo American, Belo Sun, Potássio do Brasil, Mineração Taboca/Mamoré Mineração e Metalurgia (both Minsur Group companies), Glencore, AngloGold

Mineração Taboca/Mamoré Mineração e Metalurgia (both Minsur Group companies), Glencore, AngloGold Ashanti, and Rio Tinto, uncovering alarming case studies on some of their environmental impacts and rights violations perpetrated in their operations. Many of these companies, as well as their financiers, were investigated in previous editions of this series.

Together, these mining companies received a total of \$54.1 billion in financing through banks and investment managers that own shares, bonds, or provide loans or underwriting.

Major institutions headquartered in the United States continue to be the leading financiers of mining-driven destruction, with U.S.-based companies holding the most significant shares and bonds, or offering the largest loans or underwriting, to the mining companies highlighted in this report. Together, the financial institutions Capital Group, BlackRock, and Vanguard invested US\$14.8 billion in mining companies with interests in Indigenous lands and history of rights violations.

Additionally, Brazilian financial institutions, such as the Brazilian pension fund PREVI (Banco do Brasil's Employee Pension Fund) and Bradesco have heavily funded the mining companies cited here. International private banks also stand out for their investments in these companies, including Crédit Agricole (France), Bank of America and Citigroup (U.S.), Commerzbank (Germany), and SMBC Group (Japan). All of these financial actors are complicit in mining-driven destruction.

The resistance strategies of Indigenous peoples to counter the threats of industrial and illegal mining are presented at the end of this report alongside a set of urgent recommendations for banks and asset managers, mining companies, the Brazilian government, and the international community. The future of Indigenous peoples and their territories is not for sale and their resistance to colonialism and extractivist activities has remained firm for over 520 years.



MINING AND DEFORESTATION

If mineral extraction was allowed on Indigenous Lands, an area as large as England could be stolen from communities

of forest are at risk if Bill 191/2020 is approved An area 20%

larger than England

2,500 active mining applications, from 570 companies, overlap with 261 Indigenous Lands⁽¹⁾⁽²⁾

of the Amazon has been deforested by mining between 2005 and 2015

This deforestation is nearly

times the size of the razilian city of São Paulo (1,521 km²)

ENGLAND (130,395 km²)

101,000 km²

is the total area requested

This report highlights

applications submitted by mining companies covering 5,700 km² and overlapping 34 **Indigenous Lands**

THE MINING COMPANIES

Anglo American

Belo Sun

Potássio do Brasil

Taboca/Mamoré (Minsur Group)

Glencore

Rio Tinto

AngloGold Ashanti

WHO FINANCES THIS DESTRUCTION?

the size of

the city of London

usd 54.1 billion

total equity and credit received by

these **companies** to operate in Brazil⁽³⁾

(1) Applications submitted by 570 mining companies, associations, consortiums and international corporations. (2) Data collected by the Mined Amazon project on November 5th, 2021. (3) Data from January 2016 to October 2021 gathered by Profundo Research and Advice.

usd 14.8 billion

invested by Capital Group, BlackRock, and Vanguard



U.S.-based corporations main financiers



NOTE: MINING'S TRAIL OF DESTRUCTION AND THE STRUGGLE OF BRAZIL'S INDIGENOUS PEOPLES

The Association of Brazil's Indigenous Peoples (APIB) and Amazon Watch present the report *Complicity in Destruction IV*. In this fourth edition, we investigate the scourge of the mining industry, its role in driving climate change and accelerating deforestation in the Amazon and across Brazil, as well as the socio-environmental impacts it imposes upon Indigenous peoples whose lands are targeted by prospecting and exploitation. The report also names the companies that lead and finance this rush to extract mineral resources, with the complicity of the current government, and lays out a series of recommendations to end this chain of destruction.

We publish this document following a historic year of resistance by Brazil's Indigenous peoples. 2021 witnessed an intensification of pressures and setbacks on the rights of Indigenous peoples, driven by actors attempting to transform Indigenous lands into zones of exploitation and profit. Yet the mobilization of Brazil's Indigenous peoples reached an unprecedented level. Under the leadership of APIB and its regional organizations, the attacks against Indigenous people gained even more visibility nationally and internationally, in a relentless rebuke of the Bolsonaro administration, which views Indigenous people as its main adversary.

This tug-of-war has two sides: while Indigenous peoples fight to defend their way of life and respect for their territories, the other side seeks the right to profit off of death and destruction. In this struggle, there is no place for mincing words. The Brazilian government is a loyal accomplice of agribusiness, the mining industry, wildcat mining, and illegal logging. Their collusion represents a continuation of the colonial encroachment into the lands that

Indigenous peoples have thus far defended

and preserved.

To counter this destructive collaboration, APIB has gained strength in recent years, as it has been compelled to increase its capacity to mobilize resistance and diversify its approaches to defending Indigenous peoples and the environment. Noteworthy events among these unprecedented accomplishments include:

- Brazil's Supreme Court decision in APIB's favor during proceedings ADPF 709 of 2020, which determined the Brazilian government must establish a contingency plan to stop the spread of COVID-19 among the Indigenous population;
- The complaint lodged by APIB against Bolsonaro before the International Criminal Court, in The Hague, for the crimes of genocide and ecocide;
- The organization of the largest national Indigenous mobilization since Brazil's re-democratization, by gathering more than 6,000 Indigenous people, representing over 170 peoples from every region of Brazil, in the Struggle for Life Camp, in Brasília;
- The largest Brazilian Indigenous delegation in the history of the Conference of the Parties of the UN Climate Change Convention, with the participation of over 40 Indigenous people from Brazil at COP26, held in Glasgow, Scotland.

In addition to this work, there is now the fourth edition of the report *Complicity in Destruction*. Created out of a powerful partnership between APIB and Amazon Watch, the research addresses a subject that is especially illustrative of the power of destruction that casts a shadow over Brazil's Indigenous lands. Mining is a primary economic activity, with roots in the colonial invasion and, even

Indigenous leadership march to the Supreme Court in Brasília (August 2021).



today, continues to bring death and devastation to Indigenous peoples. We also decided to include, albeit briefly, wildcat mining – an activity that although different from industrial mining, has also been a crucial threat, and whose specific features shall be expanded upon in future studies. In 2021, mining was responsible for scenes of terror on Indigenous lands throughout Brazil, especially in the Amazon. In this report, we share two cases demonstrating the violence that plagues Indigenous peoples. Both the Yanomami and Munduruku peoples experienced days of suffering and indignation due to illegal mining. Two Yanomami children drowned after being sucked in by a mining barge,² and, in the case of the Munduruku, their land was once again invaded at gunpoint.3

Remembering these cases is fundamental to exposing the scope of the problem to the world, which is much more profound and painful than can be expressed through technical terms. It is impossible to remain silent when faced with such wickedness. It is impossible to continue to endure activities that force Indigenous people to mourn the routine murder of their relatives.

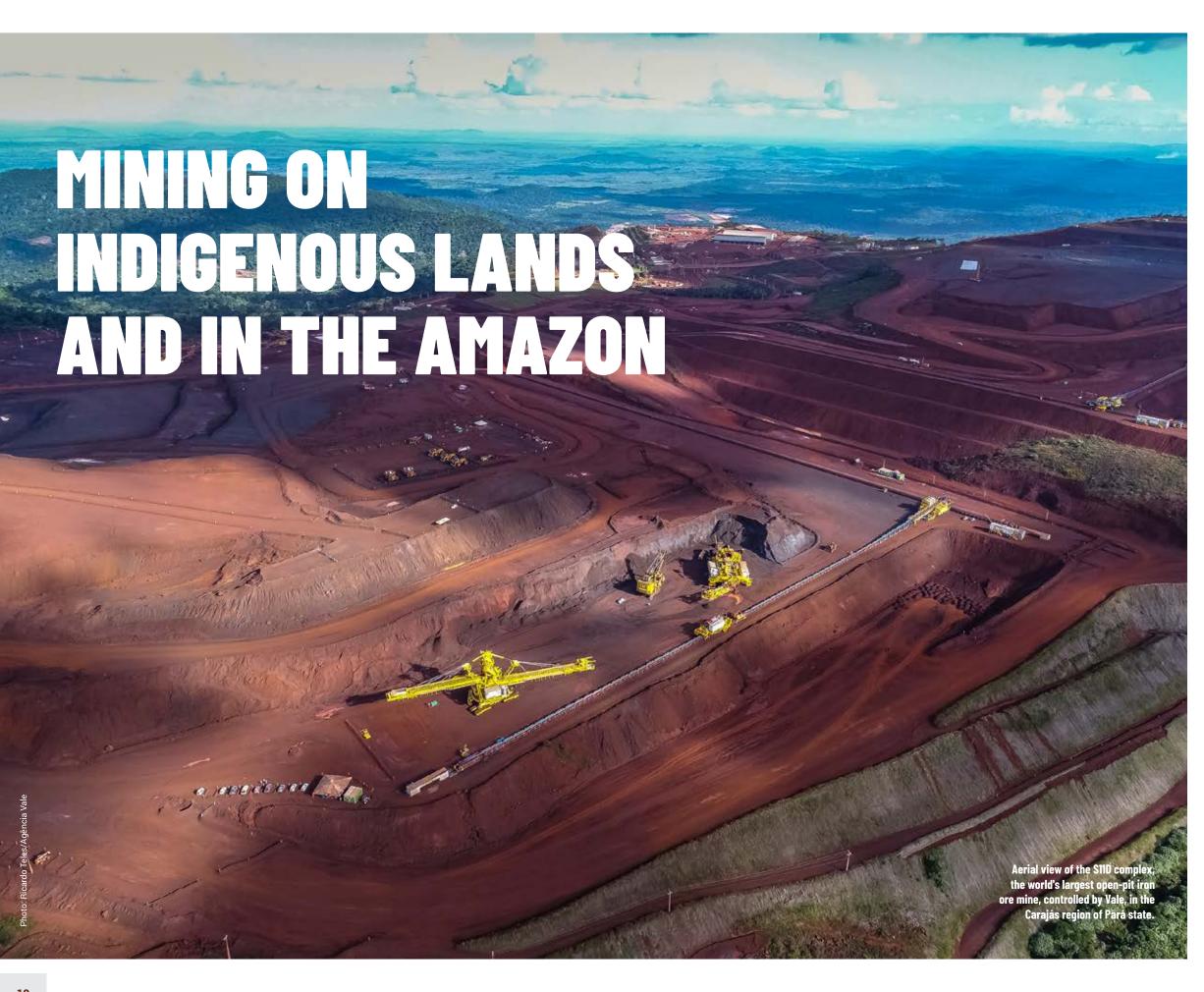
Industrial mining destroys the land, poisons the water and everything that depends on it, and devastates the surrounding communities. It imposes huge costs on all, only to generate profits concentrated in a few hands. How can we not remember the Krenak, who lost the Doce River to the mud of the Samarco disaster, or the Xikrin or the Kayapó, among so many other peoples profoundly impacted by the over four decade-span of the Carajás project? At this time of climate crisis, where the large mining companies are positioning

themselves as central players in the production of renewable energy, we must recognize the impacts of this unbridled extractivism, especially on Indigenous land.

This report is intended for the entire global community with the aim of creating shock and indignation, but, above all, of mobilizing everyone to defend the rights of humanity and put an end to the chaos, death, and destruction by those complicit. The information that we have gathered is designed to guide new regulatory frameworks that will stop the encroachment of industrial and wildcat mining on Indigenous lands. At a time in which Brazil's Congress is considering bills such as Bill 191/2020, which opens up Indigenous lands to mining and other extractivist activities, and Bill 490/2007, which changes the rules for the demarcation of Indigenous lands, the entire mining sector, its financiers, and the international community must take steps to ensure that mining is kept out of Indigenous lands. Stopping this assault is everyone's duty. It is our responsibility to the peoples that colonization has attempted to exterminate throughout history and who, despite these efforts, remain alive and offer alternatives to the model of exploitation and devastation of our planet.

Association of Brazil's Indigenous Peoples (APIB) Amazon Watch







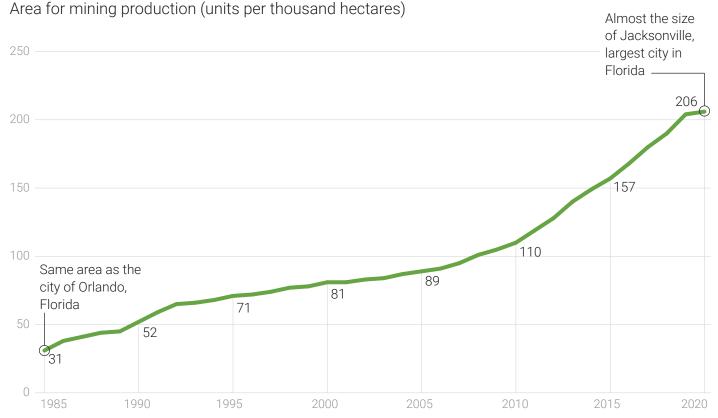
MINING IN BRAZIL

The history of mineral extraction in Brazil is deeply related to the context of colonial exploitation and is reminiscent of the first gold rush in the 17th century.⁴ Since then, the exploration of minerals, which are destined primarily for the export market and backed by significant international capital, has become more specialized and expansive, continually breaking production records.

According to Brazil's National Mining
Agency (ANM), the main minerals extracted
in the country are iron, gold, copper,
manganese, tin, niobium, nickel, and
aluminum. As Brazil increasingly prioritizes
its export model, the sector's share of
exports continues to grow, with iron ore as
the country's third most exported product.



INCREASE IN BRAZILIAN MINING PRODUCTION AREAS OVER 35 YEARS



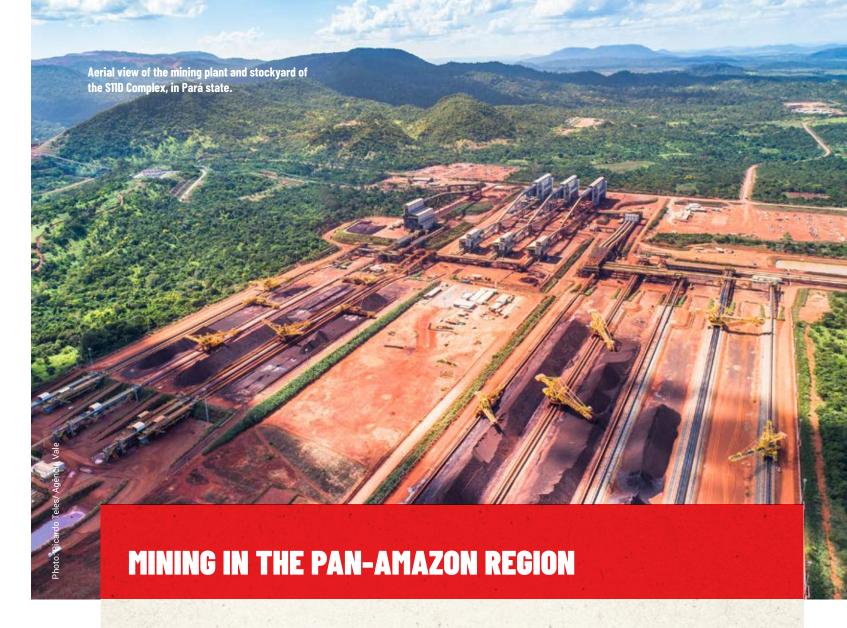
Source: MapBiomas Project – Mapping the surface of industrial mining and garimpo in Brazil - Collection 6, accessed on 12/08/2021 through the link: https://plataforma.brasil.mapbiomas.org/

Far from slowing the extractivist momentum, the COVID-19 pandemic boosted the sector, which broke production and profit records, due to increases in iron ore and gold production. During this time, the export of minerals increased by 11% to reach US\$37 billion annually. In total, over 1 billion tons of minerals were produced, resulting in revenues of circa US\$ 38 billion in 2020: an increase of 36% over the previous year.⁵

A study by MapBiomas (a Brazilian land use mapping project) showed that in 2020 mining areas in Brazil had grown sixfold since 1985, reaching 2,060 square kilometers (206,000 ha),⁶ an area equivalent to almost two and a half times the city of Berlin. In the same year, three out of four hectares

mined were in the Amazon, representing 72.5% of all the area mined in Brazil. The states with the largest mined areas were Pará with 1,100 square kilometers (110,209 ha), Minas Gerais with 334 square kilometers (33,432 ha), and Mato Grosso with 255 square kilometers (25,495 ha).

Behind profits and production records, the mining industry racks up enormous socio-environmental liabilities, leaving behind a trail of disasters and human rights violations. As with every extractivist activity, the mining sector is in constant search of new frontiers to explore, which includes the pursuit of Indigenous lands, primarily but not exclusively in the Amazon.



The **2020** Amazon Under Pressure atlas⁷ highlights that legal mining, conducted generally by large and medium-sized mining companies, is present in all Amazonian countries, affecting 17% of the region, or roughly 1.4 million square kilometers (140 million ha). Exploration and prospecting are present in 56% of this area. Mining is 96% concentrated in four countries: Brazil, Venezuela, Guiana, and Peru, with Brazil containing the largest area of these activities, accounting for 75% of the total. More than one million square kilometers (10 million ha) of the Brazilian Amazon – the equivalent of almost twice the area of Spain – is affected by different phases of the mining process.

According to the atlas, 9% of the total extension of Indigenous lands in the pan-Amazon region, or 267,100 square kilometers (26.7 million ha), is occupied by mining activities. This corresponds to an area approximately the size of New Zealand.

The most concerning reality is that mining areas on Indigenous lands are steadily increasing. Currently, there are requests for mineral research and prospecting on Indigenous lands equivalent to an area of 182,100 square kilometers (18.2 million ha).

THE HISTORICAL ENCROACHMENT OF MINING INTO BRAZIL'S INDIGENOUS LANDS

During the Brazilian military dictatorship (1964 to 1985), extractivist and infrastructure projects were key drivers of Indigenous rights violations. The building of roads and hydroelectric plants and the colonization of lands for agriculture, ranching, and mining resulted in the death, expulsion, confinement and forced removal from their lands of entire Indigenous communities, many of whom continue to live in the middle of these conflicts.

In its final report, Brazil's National Truth Commission, which investigated the atrocities of the military dictatorship, highlighted the lack of recognition and demarcation of Indigenous lands as the root cause of serious past and ongoing human rights violations. The report concluded that the Brazilian government, through action or omission, was responsible for the death of at least 8,350 Indigenous people from 10 ethnic groups,⁹ among the 305 located in Brazil.

Mining in the Amazon and the threats to the Xikrin, Kayapó and Waimiri Atroari people: living with the consequences of the dictatorship

In the Amazon, mining accelerated markedly during Brazil's military dictatorship. During this period, American, British, German, Belgian, and French mining companies were compelled to expand their operations in Brazil. In June 1967, the largest iron ore deposit in the world was discovered, in Carajás, Pará state. This mega-mine continues to be exploited by the mining company Vale, which has extracted millions of tons of copper, manganese, and gold.

Xikrin and Kayapó Indigenous people participate in a hearing with federal prosecutors concerning Vale's Onça Puma project (August 2019).

The activities of Vale in this Amazonian region profoundly affected the Xikrin and Kayapó Indigenous communities. With Vale's construction of the Carajás Railroad, the mine's impacts intruded into the Indigenous Lands (ILs) of Rio Pindaré, Mãe Maria and Arariboia, in the states of Pará and Maranhão.

The Xikrin are one of the Indigenous groups most affected by the uncontrolled, authoritarian, and violent occupation of the Amazon undertaken in the past by the Brazilian military and continued today by national and global mining companies. There are manifold impacts in areas surrounding their territory, which was only demarcated in 1991 after a decades-long struggle during which Vale played an obstructionist role. 13 The company used its influence to ensure that areas of interest for mineral exploration remained outside the borders of the Indigenous Land, guaranteeing access to future deposits, many of which were located on traditional Xikrin land. In addition to the mine's contamination of local rivers, the Xikrin were stripped of important and traditional areas for hunting and fishing that also hold cultural and spiritual importance. Even today, the Xikrin people struggle for recognition of their rights and have not received financial compensation for the damage caused since that time. 14 The impacts of mining on the Xikrin and their resistance to this industry are detailed further on page 39.

The Waimiri Atroari, who live in Amazonas state, have also coexisted for decades with the brutal consequences of the dictatorship and the mining industry. During the dictatorship, the Waimiri Atroari were almost entirely wiped out,¹⁵ reduced from a community of 3,000 to a little more than 300 people.

The Waimiri Atroari claim that, in the 1980s, prior to the demarcation of their lands, their territory's boundaries were reduced by 5,260 square kilometers (526,000 ha),¹⁶ an area that was then ceded to the Paranapanema Group, the founder of Mineração Taboca. According to the Indigenous community, "a process of economic dependence on



Brazil's Constitution and Justice congressional committee approves Bill 490/2007, which changes demarcation procedures for Indigenous Lands (June 2021).

the mining company was established in a way that destroyed the sustainable lifeways of the Waimiri Atroari. Diseases such as measles, malaria, worms, and leishmaniasis affected the entire population of Waimiri Atroari."¹⁷ No companies, politicians, or government agencies have been held accountable for the almost complete annihilation of the Waimiri Atroari to this day.

The activities of Taboca continue to impact the lives of the Waimiri Atroari, such as a recent leak in May 2021 of toxic mining residues from Taboca facilities, which contaminated rivers inside their land. Mineração Taboca and its recent impacts on the Waimiri Atroari Indigenous land are further detailed on page 52.

The cases presented above are illustrative of the colonial pattern of land theft and violence that is intrinsically linked to the expansion of mining in Brazil and Latin America. Industrial mining's cycle of violence directed primarily at native peoples and traditional communities continues today. It is essential to understand these historical cases not only to recognize and duly compensate affected peoples but also to end the destruction inherent in industrial mining, which has increased under the Bolsonaro administration.

ILLEGAL WILDCAT MINING ON INDIGENOUS LANDS

Although this edition of *Complicity in Destruction* focuses on industrial mining's impacts on the environment and Indigenous peoples and their lands, it is impossible to ignore the real threat of illegal, wildcat mining which increasingly encroaches upon these communities.

According to a study by MapBiomas,¹⁹ between 2010 and 2020, the area occupied by wildcat mining inside Indigenous lands grew by 495%, covering nearly 450 square kilometers (45,000 ha). The largest areas of wildcat mining on Indigenous lands are in the territories of the Kayapó with 76 square kilometers (7,602 ha) and Munduruku with 16 square kilometers (1,592 ha), in Pará state, and the Yanomami with 4 square kilometers (414 ha), in the Amazonas and Roraima states. Another 2,400 square kilometers (2.4 million ha) of Indigenous lands are under threat²⁰ as a result of the legally permitted pursuit of gold in the Amazon, according to 2,113 applications registered at Brazil's ANM to prospect for gold in the region.

This unbridled expansion of illegal mining is driven not only by the spiking value of gold on the world market but also by the Bolsonaro administration's broad and public support for this activity. Both the president and his vice president, Hamilton Mourão, maintain close ties with wildcat mining interests and have lobbied to open up Indigenous lands to this illicit activity.²¹

The support provided to wildcat mining by federal, state, and municipal authorities stokes conflicts in Indigenous territories, which result in direct attacks upon Indigenous rights defenders. One extreme case of violence that occurred on Munduruku lands of the upper Tapajós River, is emblematic. Starting at the end of 2020, land invasions and tensions involving illegal miners on Munduruku Indigenous land intensified, without any response from the



federal government.²² On March 25, 2021, this lack of response resulted in the invasion and destruction of the headquarters of the Munduruku Wakoborun Women's Association²³ by a group associated with wildcat mining.

Responding to these escalations at the end of March 2021, Brazil's Supreme Court employed a Breach of Fundamental Precept of Action (ADPF) 709²⁴ to direct the federal government to remove wildcat miners from Munduruku and Yanomami Indigenous lands. The ruling has resulted in erratic actions by government agencies and the Federal Police including disastrous initiatives that backfired and spurred retaliation from the criminals themselves. On Munduruku Indigenous Land, wildcat miners burned the homes of two leaders, 25 who had to flee their village and seek refuge with their families in another city, where they remained for over three months. During this time, federal operations on the upper Tapajós were suspended, and illegal mining operations further expanded. Munduruku leaders continued to be threatened and intimidated, without receiving protection from the federal government.

The Yanomami of Roraima state have also suffered mounting attacks from wildcat miners. In the 1980s, it is estimated that at the peak of the wildcat mining invasion, over 40,000 miners had entered Yanomami territory, 26 bringing epidemics of malaria and influenza, with the blessing and at the behest of Brazil's National Indigenous Foundation (FUNAI), at the time presided over by former Senator Romero Jucá. 27 Other episodes of violence related to wildcat mining followed, such as the massacre of Haximu, in 1993. 28 Recently, attacks on the Yanomami by illegal miners have again intensified. In May of 2021, wildcat miners attacked the Yanomami community of Palimiú, a region of intense disputes and constant threats, with bombs and gunfire.

Today, 40% of the Yanomami Indigenous land is covered by mining applications registered at Brazil's National Mining Agency.²⁹ According to the Yanomami Indigenous Land Leadership Forum, it is estimated that there are currently more than 20,000 invaders involved with illegal mining on Yanomami land.³⁰

Violence in Indigenous communities is not the only impact of illegal mining. The pollution of waterways is also pervasive. Contamination by mercury, a key component to wildcat gold mining, has already reached alarming levels in Amazonian rivers such as the Tapajós and Uraricoera,³¹ affecting the health of Indigenous peoples and riverside dwellers who depend on these waters. In some cases, the cumulative effect of mercury pollution is notable in large Amazonian urban centers, where it has been documented that fish contain toxic levels of the heavy metal.³²

Studies by the Oswaldo Cruz Foundation (FIOCRUZ), one of Brazil's leading health research institutions, have already detected high levels of mercury contamination in the Yanomami and Munduruku communities.³³ In the case of the Yanomami, 56% of the women and children presented mercury levels that significantly exceeded the safe limit of 2 micrograms of mercury per gram of hair established by the World Health Organization.³⁴

Today, the Munduruku face an epidemic of mercury contamination, with 100% of the study participants who live near the Tapajós River affected.³⁵ The consequences are devastating: reports in the region and FIOCRUZ's study indicate various neurological disorders,³⁶ which can result in life-long disabilities, including learning difficulties, as well as loss of speech and motor skills..

Illegal mining on Munduruku Indigenous Territory, Pará state.

CORRUPTION AND INTERNATIONAL CAPITAL DRIVE ILLEGAL MINING

Illegal wildcat mining on Indigenous Lands, such as that encroaching upon the lands of the Munduruku and Yanomami, require complex logistics, significant capital investments and depend on a network of impunity and corruption. However, local businessmen and politicians are not the only beneficiaries of this expanding activity; almost the entirety of Brazil's gold is exported to major global markets.

In 2020, Brazil exported over 110 tons of gold, valued at US\$4.9 billion, mainly to Canada, Switzerland, Poland, the United Kingdom, United Arab Emirates, Italy, and India.³⁷ However, 17% of that total was illegally extracted since the production of that gold was not registered by the official agencies in Brazil.³⁸ Alarmingly, according to a report by the Federal University of Minas Gerais produced for the Federal Prosecutors Office, approximately 30% of Brazil's gold exports in 2019 and 2020 were of illegal origin.³⁹

Brazil's lack of mechanisms to control and regulate the supply chains of illegally extracted gold makes it virtually impossible to ensure that this illicit commodity does not make its way to the global market, to be sold by jewelry businesses to unsuspecting consumers. Brazilian and international institutions fail to exercise a minimum due diligence concerning the origin of such a valuable commodity, which is tainted with environmental pollution, human rights violations, slave labor, invasion of Indigenous lands, drug trafficking, money laundering, misuse of public property, and various other crimes.

An in-depth investigation is required to uncover the international markets that help drive today's rush of illegal mining of gold on Indigenous lands – from the major international companies that manufacture heavy machinery to international buyers and financiers – revealing the extent of complicity in the destruction of the Amazon and the poisoning of its Indigenous peoples.

THE BOLSONARO ADMINISTRATION AND THE AMAZON'S NEW METALS RUSH

Bolsonaro's administration has consistently advocated on behalf of industrial and wildcat mining,41 particularly emphasizing the promise of permitting these activities in areas where it is currently barred. Mining representatives benefit from close ties with members of the presidential administration, 42 such as General Hamilton Mourão, the vice president and leader of the National Legal Amazon Council, and Arthur Lira, the president of the Chamber of Deputies. A clear example of such favoritism is the extent to which large mining companies are able to shape public policy for the mining sector and the government's efforts to provide new areas for exploration to international capital. One specific policy reflecting the current administration's agenda and crafted in lockstep with the mining industry is Bill 191/2020.

THE PROJECT OF DEATH: OPENING UP INDIGENOUS LANDS TO MINING

President Bolsonaro's Bill 191/2020⁴³ clearly represents the vision and interests of his federal government appointments and the financiers of his political campaign. In addition to allowing industrial and wildcat mining on Indigenous lands, and denying the veto power of native peoples, in this bill, Bolsonaro also seeks to authorize the planting of genetically modified seeds, the building of hydroelectric plants, ranching activities, and oil and gas projects in these locations. In regards to Indigenous peoples living in voluntary isolation, the bill stipulates that the government, through FUNAI, "will establish the necessary limits for the protection of these communities." Such a provision is entirely inappropriate for peoples who currently circulate freely within their own territories.

The bill contradicts the Brazilian Constitution and the internationally recognized right to self-determination



of Indigenous peoples guaranteed by Convention 169 of the ILO,⁴⁴ by slashing the Indigenous right to Free, Prior, and Informed Consent (FPIC), as it removes any chance Indigenous people have of vetoing activities on their lands. If approved, the bill will lead to an increase in deforestation, invasions of Indigenous lands, and violence⁴⁵ against these peoples.

Indigenous peoples have opposed this bill on various occasions. The Munduruku refer to it as "the project of death that is dividing our people and bringing violence [against those who] fight to defend our land."46 The Baniwa,47 from Amazonas state, say that "it is a mistake to believe that mining is an opportunity for the [economic] development of Indigenous peoples," challenging the claim of the measure's supporters, who tout that Indigenous communities desire to exploit their lands in this manner.

In February 2021,⁴⁸ APIB stated its official position and denounced the project as representing "manifestations of hate and visceral racism that the Bolsonaro administration has shown, routinely and publicly, against Brazilian Indigenous peoples, organizations, and leaders since its first day." Considered an attempt at "manipulation of our desire for autonomy," the bill was labeled as a "project of death."

The Coordinating Body of Indigenous Organizations of the Brazilian Amazon (COIAB) also condemned the bill, 49 calling it "unconstitutional and immoral." According to COIAB, the bill "permits exploitation that will benefit only national and international hegemonic economic interests, by handing over our heritage, instead of protecting it, and leaving us in poverty."

Although this bill has still not been put to a vote, its impacts are already being felt by Indigenous people throughout the country. Following its introduction, state legislatures attempted to pass their own measures to loosen licensing of industrial and wildcat mining, 50 while land invaders and wildcat miners have become emboldened to venture into Indigenous lands, with the expectation that their illegal activities will soon be permitted.



Bill 191/2020, in conjunction with Bill 490/2007, presents the possibility of providing extractivist industries with almost unrestricted access to Indigenous territories. Bill 490/2007 aims to eviscerate Indigenous land demarcation standards under the banner of the so-called "Marco Temporal."51 The "temporal framework," or time limit clause, is a political and legal interpretation, defended by rural lobbying groups, who argue that Indigenous people would only have rights to the land if it was in their possession on October 5, 1988, the date the Federal Constitution was enacted, ignoring the historical violations that these peoples have suffered since colonization. This interpretation is at the center of the Extraordinary Appeal 1.017.365 to be heard before the Supreme Court, which will determine its validity in the demarcation of Indigenous lands. Bill 490/2007, whose constitutionality was rejected by Brazilian jurists⁵² and APIB,⁵³ was approved in its entirety by the congressional Constitution and Justice Committee in June of 2021 and now awaits a vote in the lower house of Congress.

The federal government, politicians, and private sector actors promote the rationale that the passage of Bill 191/2020 would result in economic development for Brazil, and for the Amazon region and its peoples. Yet, a study in the scientific journal One Earth⁵⁴ shows the explosive impact of Bill 191/2020 on deforestation, noting that it will lead to US\$5 billion in annual losses in ecosystem services, defined as benefits that human beings obtain from ecosystems, due to the destruction of forests' critical production of food and raw materials, while impacting their ability to capture greenhouse gases and regulate the global climate.

ARTHUR LIRA, PRESIDENT OF THE CHAMBER OF DEPUTIES, AND HIS MINING ALLIES

The fate of Bill 191/2020 rests largely in the hands of the current president of the Chamber of Deputies. Arthur Lira, a member of the Partido Progressista (a conservative, right-wing party) will occupy the position for the next two years and will be responsible for scheduling or postponing voting on bills that are strategic to the Bolsonaro administration.

Lira recently played a key role in the advancement of two bills that represent immense risk to the preservation of the environment and rights of Indigenous and traditional communities:
Bill 3729/2004, which changes the rules of environmental licensing⁵⁵ and Bill 2633/2020, known as the "Land Grabbers Bill." Both have been sent for evaluation to Brazil's Senate, leading civil society to increase pressure upon Senate President Rodrigo Pacheco to vote against it.

Lira's close ties with the illegal mining economy indicates that the protection of Indigenous lands is low on his list of priorities. In his 2014 political campaign, Arthur Lira received US\$87,000 (R\$200,000) from the jet company Rico Táxi Aéreo, which has served illegal miners for decades⁵⁷ across the Brazilian Amazon, according to its own website. Lira traveled many times around Brazil in jets owned by Rico during his recent campaign for the presidency of the lower house of Congress.⁵⁸ Both Arthur Lira and Rico Táxi Aéreo⁵⁹ are targets of investigations for corruption and money laundering.⁶⁰



OPEN FOR BUSINESS: THE ROLES OF BRAZIL'S MINISTRY OF MINES AND ENERGY AND NATIONAL MINING AGENCY IN HANDING OVER BRAZILIAN MINERALS

While pressing for legislative changes that open vast new territories for mining, the Bolsonaro administration has gotten a head start by pushing its pro-market agenda through regulatory agencies and the Ministry of Mines and Energy (MME).

During the largest mining event in the world, held in Canada in March 2021, the Brazilian government proposed to offer 35,000 zones and eight blocks for mineral research⁶¹ to global investors, which it characterized as being underexplored or "locked" from the market for decades, without "any movement due to bureaucracy." Among the regions targeted by investors are areas of great environmental importance in the Amazon, such as the districts of Tapajós and Alta Floresta (Juruena-Teles Pires), in northern Mato Grosso and southern Pará states.

To carry out its expansionist agenda for mining in Brazil, in September 2020 the government launched the Mining and Development Program (PMD).⁶² The program lists 110 targets for the sector, including regulation for opening up Indigenous land to mining. Entitled "Advancement of Mining into New Areas," item 3.4 of the plan establishes the goal of "Promoting regulation of mining on Indigenous land."⁶³ The document fails to reveal that it was in fact dictated by associations that represent Brazil's mining sector.

Research conducted by the Mining Observatory⁶⁴ using Brazil's Freedom of Information Act

demonstrates that shrouded behind the generic targets of the PMD are very specific recommendations from leading organizations in the mining sector, such as the Brazilian Association of Mineral Research (ABPM). Documents obtained show that only those entities representing the sector contributed decisively to the end result, essentially dictating the program's content. In addition to the ABPM, the federal government collected suggestions from private sector entities and internal government agencies in a meeting held in August 2020.

Even foreign ambassadors who serve in Brazil are frequently consulted by the Bolsonaro administration about mining sector policy⁶⁵ and have an active voice in the strategy to open Indigenous lands up to industrial and wildcat mining. Ambassadors most frequently consulted are from the United States, Canada, England, and Australia, all of which are countries that host global mining giants and where these companies wield great economic and political power. In meetings convened by the MME, the Mining and Development Program and

Bill 191/2020 were discussed. According to MME representatives, rather than questioning the proposal to mine on Indigenous lands, the ambassadors responded positively to the government's efforts to push for these new policies in a positive manner.⁶⁶

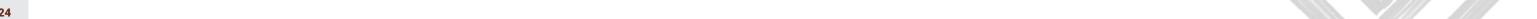
On the other hand, civil society organizations working for the protection of the environment, representatives of Brazil's Indigenous movement, the mining sector's labor unions, and representatives of communities affected by mining were invited to contribute to the three-year plan for the sector.

Governments, companies, and international political actors conceal the inherent and immeasurable socio-environmental liabilities, while celebrating the progress of their alliance to boost mining in Brazil, and open Indigenous lands to the sector. Decision makers routinely negate and downplay the negative impacts mining will have in every aspect of life for affected and threatened communities, including the destruction of critical ecosystems and the grave risk it represents for climate change mitigation.



MINING INCREASES DEFORESTATION RATES

Between 2015 and 2020, mining deforested more than 405 square kilometers (40,536 ha) of Amazonian forests, according to alerts from the Real-Time Deforestation Detection System (DETER), created in 2016 by the National Institute for Space Research (INPE). The area deforested is equivalent to roughly 40,500 soccer fields. Throughout 2019 and 2020, deforestation caused by mining broke records and made inroads into conservation areas. According to alerts from DETER, in 2021 mining destroyed 125 square kilometers (12,500 ha) of rainforest, the largest area since the system began its monitoring series,68 and an increase of 62% over 2018, the year Bolsonaro was elected president of Brazil.

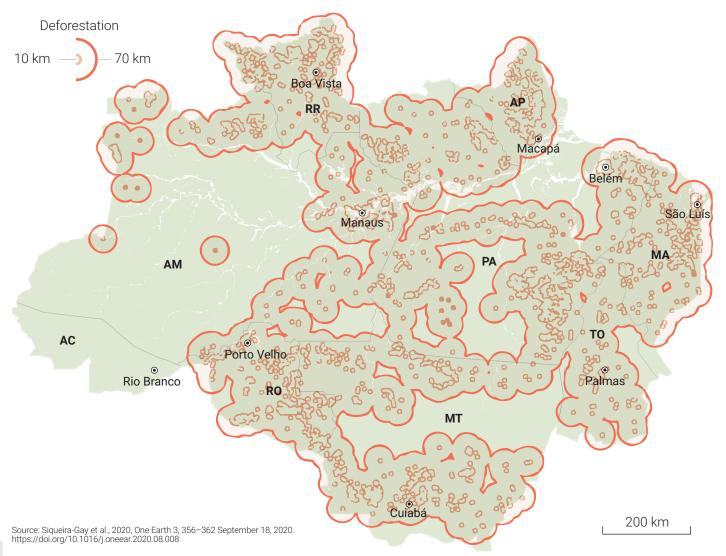


These figures may appear small compared to the main drivers of deforestation (cattle ranching and industrial agriculture), but represent a rapid intensification of deforestation associated with mining and its impacts on vast areas, primarily in conservation areas and Indigenous lands. And this destruction is only getting worse. A study published in the scientific journal One Earth revealed that, if passed, the proposed law to open up mining on Indigenous lands could result in the loss of 160,000 square kilometers (16 million ha) of Amazon rainforest, ⁶⁹ an area larger than England. This projection is equivalent to 16 years of deforestation, speeding up immense destruction through a single political maneuver. ⁷⁰

Official data on deforestation driven by mining tends to be underestimated, because it calculates only the immediate and direct impacts of the activity on the locations where forests are cleared for mineral exploration. Information is lacking on the indirect and cumulative impacts of mining on forest cover. Deforestation should be measured holistically from the construction of infrastructure such as roads, administrative headquarters, and housing for workers, to the expansion of mines and infrastructure throughout the life and beyond the end of a project. Deforestation associated with land use pressure in the locations surrounding the mining projects should also be considered. Because these effects are politically and financially convenient to avoid measuring, they are often ignored when calculating the impact of mining on deforestation

BILL 191/2020'S POTENTIAL IMPACT ON THE AMAZON RAINFOREST

Considering impacts of up to 10 and 70 km from mining sites





According to a 2017 study published in the journal Nature Communications, mining projects can significantly increase forest loss at a distance of up to 70 kilometers from their operations. In this manner, large-scale Amazon mining can generate up to 12 times the deforestation than the area officially permitted for exploration. Taking the projections into consideration, the study estimated that between 2005 and 2015, legally permitted mining resulted in the loss of 11,670 square kilometers (1.17 million ha) of Amazon forests, an area equivalent to almost eight cities of London lost in a decade, which is considerably larger than official data shown on page 25 on mining-driven deforestation.

If we apply this projection to the data for deforestation between 2015 and 2020 – **405 square kilometers (40,536 ha)**⁷² – the result totals 4,864 square kilometers (486,400 ha) of deforestation. Adding to the destruction of the previous years, according to this study, mining operations in the Amazon have both directly and indirectly deforested an area bigger than Puerto Rico.

MINING CONTAMINATES WATER AND EVERYTHING THAT DEPENDS ON IT, INCLUDING THE HEALTH OF INDIGENOUS COMMUNITIES

The contamination of rivers and waterways by mining byproducts and tailings is one of the principal impacts of mining activities.

Contamination by mercury, one of the substances used in wildcat mining for gold, has already reached alarming levels in Amazon rivers like the Tapajós and the Uraricoera, severely compromising the health of Indigenous peoples and riverside dwellers.

Various communities who live near the mining areas have denounced this contamination. This is the case of *quilombola* communities (Afro-Brazilian communities made up of the descendants of escaped slaves and designated as traditional peoples within Brazilian legislation) along the Trombetas River in Pará state, which have coexisted for four decades with bauxite mining and

the successive loss of waterways contaminated by mining waste⁷³ while being vulnerable to the largest complex of tailing dams in the Amazon.⁷⁴ Even today, communities in Barcarena in Pará still live with the consequences of a 2018 leak by the Norwegian company Hydro,⁷⁵. In March 2021, a leak in a reservoir of the Canadian mining company Equinox Gold resulted in the cutoff of potable water for more than 4,000 people in the municipality of Aurizona, in Maranhão, due to the risk of contamination.⁷⁶

Mineral processing involves vast quantities of water, which end up dispersing toxic byproducts produced in every phase of operations. In general, this water is discarded in tailings basins, which must be serviced and maintained for decades after the end of extraction activities. On this subject Mariana and Brumadinho, the two largest socio-environmental disasters in Brazil's history, are notable, and they were caused by Samarco, BHP, and Vale. In addition to causing hundreds of deaths and irreversible impacts on the life of affected communities, the impact on the Doce⁷⁷ and Paraopebas⁷⁸ Rivers was so devastating that communities reported the two rivers essentially died. Case studies explored in Chapter 3 demonstrate how the activities of large mining companies impact water and soil resources and the health of surrounding communities.



A fish killed by toxic mud in the Paraopeba River, near the Pataxó Hã-hã-hãe Naô Xohã village.

MINING IS ONE OF THE MOST LETHAL ACTIVITIES FOR DEFENDERS OF THE ENVIRONMENT

A report by the NGO Global Witness⁷⁹ on environmental activists murdered worldwide in 2020 reveals that, of the 227 defenders who lost their lives, 17 were killed as a result of conflicts related to mining. Mining is one of the most lethal sectors for activists globally, alongside logging, dam building, and agribusiness. Latin American communities are disproportionately impacted, with almost 75% of all the murders recorded in the world. Brazil ranks fourth overall, with 20 deaths of environmental defenders in 2020.

The Map of Mining Conflict for 2020,80 developed by the National Committee for the Defense of Territories Against Mining, reveals the intensity and gravity of the conflicts and the damage caused by mining activities throughout Brazil. There were 722 registered cases of conflict, affecting over a million people in Brazil. Over 400 of these occurrences involved major foreign mining companies and impacted groups such as *quilombolas*, riverside dwellers, small-scale farmers, and Indigenous people. The study shows that international mining companies are implicated in the majority of the disputes and accusations lodged by vulnerable communities.

The map also shows cases of extreme violence caused by mining, such as 10 cases of slave labor (with a total of 144 people enslaved), five death threats, three people murdered, and 26 forced removals involving 57,662 people, in addition to cases of aggression, false imprisonment, and deaths of mining workers. Another study from 2019, by the Pastoral Land Commission, focused on conflicts surrounding the use of Brazilian water resources, showing that mining was the activity most involved in these conflicts,⁸¹ representing 39% of recorded cases and affecting 70,000 families.



In addition to the widely understood impacts of mining, such as the degradation of forests and rivers, and impacts on health and threats to life, there are other consequences that are less visible and therefore attract less attention in environmental licensing and compensation processes. These include impacts on the cultural, political, and social ways of life of Indigenous peoples caused by mining operations on or adjacent to their territories. Far from being marginal consequences, they are felt profoundly by communities, affecting the individual and collective mental health of affected peoples, their ways of organizing, and ultimately their ability to survive on their land.

Among these impacts, the desecration of sacred places or the reduction of access to these locations resulting from restrictions imposed by mining companies (as in the case of the Mura people and the mining company Potássio do Brasil, explored on page 50), such as not being able to perform festivities and rituals in degraded locations (particularly rivers), and interruptions in daily life caused by the influx of people and equipment near communities.

"We have a sacred relationship with the rivers, with Txopai, the father of the waters...Before the leak, we took purification baths almost daily in the waters of the Paraopeba, in honor of Txopai, in a sacred ritual to strengthen the spirit. In the month of October, we hold the Festival of the Waters, bringing together relatives in one of the most important rituals of our culture, held to celebrate the arrival of the rains and thank the protector of the waters, Txopai, and Niamissu (God), for the abundance of food. We can no longer use the waters of the Paraopeba River for bathing, leisure, or farming...causing irreversible effects on the reproduction of our practices, our cosmology and well-being."

araopeba River polluted

Chief Arakuã and Vice-Chief Sucupira, in a Preliminary Report on Human Rights Violations of the Pataxó Hã-Hã-Hãe and the Pataxó of Naô Xohã Village⁸²

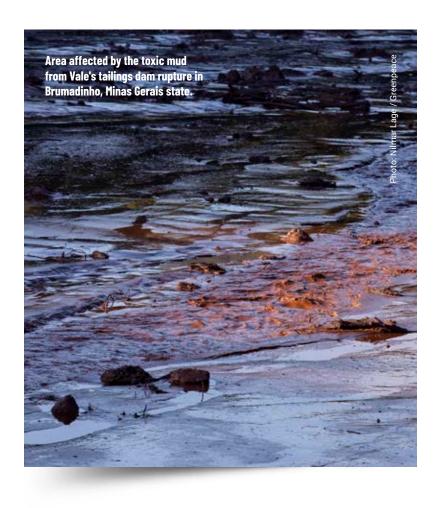
Many communities also report exhaustion from the succession of meetings with companies (where proceedings for consultations and damage reparation are underway) and the impact on their political self-organization (for example, when leaders chosen by the community are not recognized or have their authority questioned by representatives of the company). The continuous process of companies attempting to co-opt leaders is also commonly reported, generating breakdowns within the communities

MINING DEEPENS CLIMATE CHANGE

Although it receives less attention than the fossil fuel sector in negotiations on climate, mining is strongly associated with climate change. In addition to its impact on deforestation, especially in diverse biomes such as the Amazon and the Cerrado, the encroachment of mining frontiers into regions of intact forest will further affect the hydrological cycle and climate equilibrium not only in Brazil, but throughout the world. The central role of Indigenous lands for climate regulation and the maintenance of carbon stocks — it is estimated that 58% of the carbon stock in the pan-Amazon region is found in Indigenous and protected areas⁸³ — makes the encroachment of extractivist activities into these areas even more disastrous.

Mining requires enormous quantities of fossil fuels throughout its operation, from excavation to shipping, with some equipment requiring 400 liters of fuel per day,84 and many of the largest mining companies in the world remain engaged in the unsustainable coal sector. A 2020 study by the consultancy McKinsey Sustainability⁸⁵ shows that mining is responsible for 4% to 7% of greenhouse gas emitted globally. Considering indirect impact, and including coal as the energy source, this figure rises to 28% worldwide. The 16 largest mining companies in the world emit around 2.5 billion tons of equivalent carbon per year - the extraction of coal is the biggest culprit of these emissions, representing 50% of the world mining market, according to the aforementioned study.86 Many mining companies are failing to comply with targets in the Paris Agreement,87 with plans well below those expected to limit global warming, while forging ahead with efforts to expand their activities into critical ecosystems.

Mining also requires large quantities of electricity, with the mineral-metallurgical chain consuming the equivalent of 11% of all the electrical energy in



Brazil.⁸⁸ The fact that mining companies actually produce significantly more tailings than metals⁸⁹ is also noteworthy. For each ton of nickel or cobalt produced, 100 tons of tailings are generated.⁹⁰ This toxic waste is stored behind dams – structures that run the risk of bursting.

Finally, even discussions about an energy transition to a theoretically more sustainable energy mix globally, which relies heavily on the intensification of the extraction of metals such as copper, nickel, lithium, and cobalt, 91 do not take into consideration the fact that these reserves are concentrated in a few countries – and in many cases, in tropical forests. The extraction of these minerals involves recurring socio-environmental and human rights violations.



MINING DOES NOT DELIVER PROMISED ECONOMIC DEVELOPMENT

Despite being a high-impact activity with serious risks to human and environmental health that can last for generations, mining is still celebrated by companies and governments as an essential activity for the economy. Assurances of local development is a common argument employed by mining advocates. Promises include job and income generation, the boosting of the local economy, and improvements in public services based on the generation of taxes.

However, an analysis by the Instituto Escolhas on social and economic indicators of Amazonian municipalities show that mining does not bring real economic development to local populations. ⁹² By analyzing 73 municipalities where the extraction of gold and diamonds occurred between 2005 and 2016 and comparing them to other municipalities of the same region where there was no mining activity, the study discovered that supposed benefits occurred for a very limited time.

Escolhas' analysis shows that effects on indicators such as health, education, and GDP per capita are brief, disappearing after three to five years. Even employment and income indices are unfavorable: in the last decade, salaries in the mining sector have fallen on average by 12%. The report also shows that mineral extraction is the industry

that generates the lowest level of employment opportunities throughout its production chain. Additionally, the jobs that are generated generally follow worst practices with regard to workplace health and safety. Whether it be poisoning by chemical substances and heavy metals, accidents in mines, or, more recently, disproportionate exposure of workers to the COVID-19 virus, mining was already considered one of the industries that most kills, mutilates, and mentally affects its workers in Brazil."

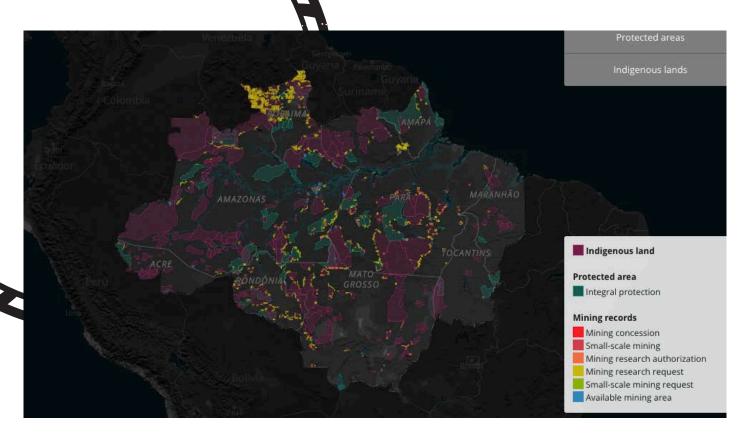
Finally, despite strong government support, the truth is that the mining sector pays few taxes, meaning that its riches are not funneled back to local communities. According to an analysis by the Institute of Socio-economic Studies (INESC), the government of Minas Gerais state lost an estimated US\$ 2.3 billion (R\$13 billion) between 1997 and 2013 due to tax exemptions on exported ore. 97 The same process occurred in Pará state, which during the same period sustained losses of circa US\$ 1.7 billion (R\$9.4 billion). Tax evasion, misappropriation, and the transfer of public revenue into the private hands of national and transnational companies are common methods employed by the sector.98 For example, Vale's use of tax havens is presently the target of an investigation conducted by a Parliamentary Commission of Inquiry in Pará.99





In the previous editions of the Complicity in Destruction¹⁰⁰ series we exposed how large mining companies are exerting pressure on Indigenous lands and explored the efforts of the Bolsonaro administration to open up these areas to industrial mining. On that occasion, we highlighted the various applications submitted by large mining companies for the research and extraction of minerals on Amazonian Indigenous lands. At the time, there were nearly 4,000 mining applications¹⁰¹ which affected 31 Indigenous lands and 17 conservation areas across the region. In addition to the large number of applications submitted by mining companies and domestic mining consortiums, the number of requests by multinationals was especially noteworthy.





Map 3 - Mined Amazon Map, with all the mining applications and concessions overlapping Indigenous lands and conservation units.

Despite being illegal, Brazil's National Mining Agency (ANM) receives, records, and maintains the applications for mineral research and prospective mining in its systems originating from large, medium, and small mining companies, consortiums, and business people interested in exploiting Indigenous lands. The damage caused by ANM's leniency, permitting these applications to be filed, has already been the subject of numerous complaints by the Federal Prosecutor's Office.¹⁰²

APIB and Amazon Watch have exposed the existence of these applications for mining research and exploration, organizing campaigns such as one directed at Anglo American concerning its interests in Munduruku territory. These campaign activities highlighted that, in addition to being illegal, these applications generate major impacts on the region and on local communities by fanning disputes and conflicts between political and economic actors that defend mining and Indigenous communities struggling to keep this activity from invading and destroying their lands and rivers. In the context of

the push to approve legislation that will open up Indigenous lands to mining, such as Bill 191/2020 and Bill 490/2007, the mere existence of these applications represents a serious violation of the rights of Indigenous peoples.

This report provides an updated mapping of the applications submitted to ANM that impact Indigenous lands. In addition to the Mining Observatory, which collaborated with research and content for this edition, a new partnership was formed with the journalism portal InfoAmazonia who are authors of the Mined Amazon (*Amazônia Minada*) project. The result is a new **interactive map**, which shows, in real-time, the applications submitted to ANM that overlap fully protected Indigenous lands and conservation units of the Brazilian Amazon, with a filter function for search by company and territory.

The Mined Amazon map considers applications on Indigenous lands to be any request with areas overlapping (completely or partially) territorial

boundaries, or which touch any part of the borders of Indigenous lands. On November 5, 2021, the Mined Amazon project identified 2,478 active mining applications overlapping 261 Indigenous lands in the ANM system. These applications are in the name of 570 mining companies, mining associations, and international groups that have applied to explore an area of 101,000 square kilometers (10.1 million ha). Almost half of the applications (1,085) are for gold prospecting.

The total number of applications has fallen by half since the publishing of *Complicity in Destruction III* in 2020. In 2021, companies like Vale (for further information see page 38) and Anglo American (page 44) announced that they would formally withdraw their mining applications on Indigenous lands, and ANM itself was forced to suspend various proceedings based on legal complaints filed¹⁰⁴ by the Federal Prosecutor's Office.

However, it is important to highlight that research also found applications in the name of Vale, Anglo American, Belo Sun, and Glencore requesting a "Removal of Interference." which occurs when ANM redraws the mining research areas for an intended region, removing overlapping Indigenous land from the area requested by the company. In most cases, the new outline remains adjacent to the borders of the Indigenous lands. In some cases, these processes contravene Ordinance 60 of 2015. which requires that operations occur 10 kilometers from Indigenous lands, allowing mining company activities to continue to affect these communities. This maneuver has allowed applications that were previously suspended at the ANM to return into circulation, whereby the agency publishes authorizations for research (known as a Draft Permits) in the name of the mining companies. This is further proof that shining a spotlight on these applications and applying pressure on these companies continue to be important strategies to keep them from producing impacts on Indigenous lands.

THE LARGEST MINING COMPANIES IN THE WORLD ARE STILL INTERESTED IN INDIGENOUS LANDS

As a way to subsidize campaigns and actions at the international level, we chose to focus on companies that meet the following criteria: a) active applications overlapping Indigenous lands in the ANM system; b) a history of impacts on Indigenous territories and communities in Brazil, particularly in the Amazon; c) are enabled by and/or have links with international financial institutions. As such, the following companies are featured in our case studies: Vale, Anglo American, Belo Sun, Potássio do Brasil, and Mineração Taboca/Mamoré Mineração e Metalurgia (both belonging to the Minsur Group).

We also included three multinational mining giants in our financial analysis starting on page 56 – **Glencore, AngloGold Ashanti, and Rio Tinto** – due to active mining applications on Indigenous lands in the ANM system. These companies have a history of violating the rights of native peoples in various parts of the world, as is explored on page 55.

Mined Amazon's November 5, 2021 research encountered a total of 225 active mining applications overlapping 34 Indigenous lands involving the nine companies cited above. Vale leads the number of overlapping applications, with 75 active applications, Anglo American is second, with 65 applications, and in third are two companies of the Minsur Group (Taboca and Mamoré), with 35 active applications, followed by Potássio do Brasil with 19 applications, Rio Tinto with 14, Belo Sun with 11, Glencore with 3, and AngloGold Ashanti, also with 3. The applications are for mining different minerals, including metals, but primarily copper, gold, nickel, potassium salts, zircon, cassiterite, bauxite, and diamonds.



These 225 applications cover **5,727 square kilometers (572,738 ha)** – **an area almost equivalent to three times the city of London**. **Pará is the state with the highest concentration of applications, with 143 overlapping 22 Indigenous lands**. It is important to note that mining applications in this state doubled in less than six months (there were 67 on July 12, 2021). After Pará, come Amazonas and Mato Grosso, with 56 and 23 applications respectively.

The Indigenous lands most affected by these companies are Xikrin do Catete and Waimiri Atroari, both with 34 applications each. Sawré Muybu (21 applications) and Apyterewa (13) round out the list of Indigenous lands most affected by these applications. Most of the mining applications are in the territories of the Kayapó, the most impacted people, with 73 applications. Next are the Waimiri Atroari (34), Munduruku (25), Mura (14), Parakanã (13), and others. At least five applications are in areas where Indigenous people of the Apiaká ethnic group live in voluntary isolation.

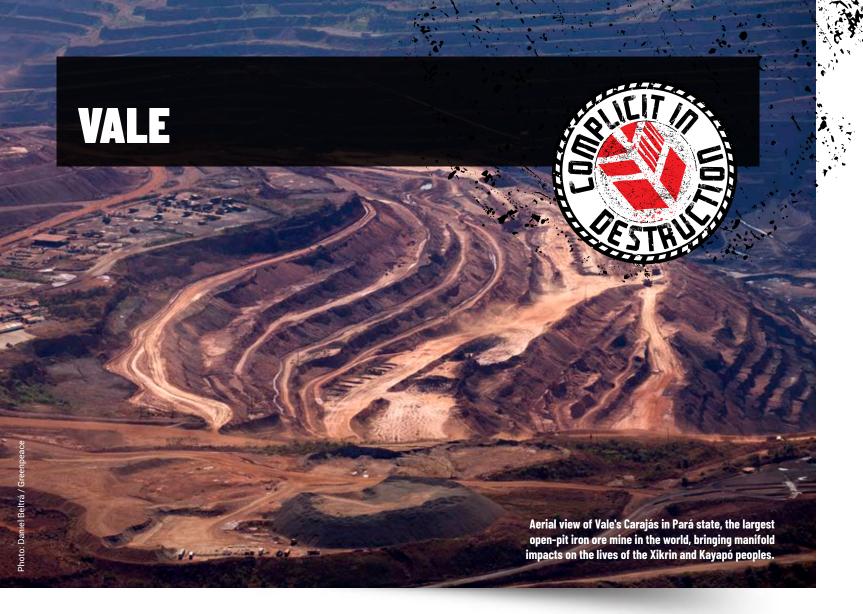
MINING INTERESTS BY COMPANIES -

Active applications before the National Mining Agency overlapping Indigenous lands (November 5th, 2021)

Company	No. App.	Affected IL	Area in ha
Vale*	75	14	212,943
Anglo American Níquel Brasil Ltda.	65	11	154,966
Minsur*	35	2	21,280
Potássio do Brasil Ltda.	19	6	68,411
Rio Tinto Desenvolvimentos Minerais Ltda.	14	3	30,918
Belo Sun Mineração	11	2	62,865
Anglogold Ashanti Mineração Ltda.	3	1	8,023
Glencore Exploração Mineral do Brasil Ltda.	3	2	13,331

*Applications from Vale S. A. and Vale Metais (which belong to the same group) were combined for this research. The same occurred for the mining companies Mamoré and Taboca, both belonging to the Minsur group.





It is impossible to talk about the interests and impacts of mining on Brazil's Indigenous lands without highlighting the role of Vale. Founded in Minas Gerais in 1942, the company operates today in over 30 countries on five continents, and runs neck-and-neck with Rio Tinto as the largest producer of iron ore in the world. In addition to iron ore, Vale also extracts nickel, manganese, copper, bauxite, aluminum, gold, silver, cobalt, and coal, among other minerals.¹⁰⁶

A new commodities boom and increased demand from China have boosted revenue at Vale, enabling consecutive records in net profits. The mining company pocketed US\$ 12.3 billion (R\$70 billion) in the first half of 2021 alone, the second-best result in the history of a publicly traded company in Brazil.

And the company continues to receive licenses to expand its projects¹⁰⁷ for exploration in the Amazon, especially in Pará, placing even more pressure on Indigenous peoples and communities affected by its giant mining apparatus.

As we show in the third report of the series, ¹⁰⁸ published in October 2020, the company's conflicts with Indigenous peoples accrue in the Amazon and throughout Brazil. The company denies any connection with violations that we present in this report, claiming that it respects and values Indigenous rights and has no interest in mining their territories, a declaration that it reinforced recently by announcing its withdrawal of applications for mining on Indigenous lands. ¹⁰⁹ However, this is not what our case studies show.



Vale's operations in Xikrin and Kayapó territories

The impacts of Vale on the lives of the Xikrin and Kayapó are reminiscent of the early development of the Carajás project, in Pará state. The company, which played a decisive role in the demarcation of the Xikrin's Indigenous territory, 110 reinforces its presence in the region with projects like Onça Puma and S11D.

The nickel mining project Onça Puma, in operation along the Cateté River since 2011, generates numerous impacts on Xikrin and Kayapó communities who live in the region, and who have been engaged in a legal battle for years. A February 2020 study conducted by researchers at the Federal University of Pará on pollution in the Cateté River states that "100% of the individuals are contaminated with at least one heavy metal, at alarming levels."111 High levels of lead, mercury, manganese, aluminum, and iron are most notable. According to the researchers, "there is no doubt regarding the responsibility of the Onça Puma project in contributing to the contamination of the Cateté River." The study affirms that, "if no steps are taken, we will be seeing the end of the Xikrin."

Vale denies that Onça Puma has caused the impacts cited by Indigenous people and researchers. 112 However, in November 2020, the Federal Prosecutor's Office (MPF), Vale, and the Xikrin and Kayapó signed an agreement on the environmental impacts caused by Onça Puma. 113 The agreement suspended legal proceedings against the mining company for one year on the condition of payment of US\$ 4.6 million (R\$26 million) in damages to affected Indigenous people. During this period, in addition to the payment of damages, Vale must participate in negotiations on the clean-up of the Cateté River and the affected region.



Xikrin children swim in the Cateté River, contaminated by heavy metals since Vale began operating its nickel mine nearby.

Sought out by the authors of this report to learn what has been done in relation to the agreement established in 2020, the MPF of Pará said that Vale paid the last installment of the damages to Indigenous people in May 2021 and that, "the negotiations regarding the environmental question are still ongoing, and include other subjects expected to be part of the agreement." However, Xikrin leaders affirm that only two meetings have been held since November 2020, and that there are a number of disagreements between the company and the Xikrin.

"What we want is for Vale to really listen to our demands, that it offer solutions such as the building of schools, hospitals, and homes inside the Indigenous land, commit itself to providing professional training for Indigenous people, and agree to at least reduce the environmental impacts of Onça Puma and S11D. Vale wants an agreement so that the company itself decides what is most important. It doesn't work like that. This is not going to be resolved only with money, with a settlement. The Indigenous people need to actively participate in projects that Vale intends to continue."

Yan Xikrin, young leader from the Council of Leaders in the Xikrin do Cateté Indigenous Land.



Quilombolas, riverine and Indigenous people of Oriximiná, in Pará state, are affected by MRN, a subsidiary of Vale.

On October 18, 2021, the Court of Justice of Pará state upheld the suspension of the Onça Puma project's operating license,¹¹⁵ forcing Vale to once again cease activities in the region.

In addition to the problems at Onça Puma, the Xikrin also allege that their views on Vale's largest iron ore mine, S11D,116 located between Carajás, Parauapebas, and Marabá, also in Pará were ignored. In October 2020, the Xikrin asked the Superior Court of Justice to suspend operations at S11D. According to the request, S11D had "represented serious harm to the health, safety and subsistence of the members of those communities."117 The Indigenous associations insist that mining activities should be suspended, "considering the serious environmental damage resulting from the irregular execution of the project." The main argument is the lack of a "Free, Prior, and Informed Consultation of Indigenous peoples," as required in ILO Convention 169.

Vale and Mineração Rio do Norte on quilombola lands

Mineração Rio do Norte (MRN) is the largest producer of bauxite in Brazil, a mineral used as to make aluminum. The MRN mine, which began operations in 1979, is located in Oriximiná, in western Pará, inside the Saracá-Taquera National Forest. In 2019, MRN produced 12 million tons of bauxite and recorded net profits of US\$25.2 million (R\$143 million).¹¹⁸

The shareholder structure of MRN is relevant: the mining company is a subsidiary of Vale, which owns 40% of its shares. The rest is split among other large world players¹¹⁹ such as South 32 Minerals, the Alcoa Group, Companhia Brasileira de Alumínio (owned by Votorantim), Alcan Alumina, and the Norwegian company Norsk Hydro, which also plays an important role in the company, purchasing 45% of all the bauxite produced by MRN.¹²⁰

Oriximiná is a municipality larger than Portugal with around 10,000 *quilombola* and riverine dwellers, as well as 3,500 Indigenous people. Many of these communities are directly affected by MRN operations. ¹²¹ Calculations by the Pro-Indigenous Commission of São Paulo show that MRN's concession overlaps nearly 400 square kilometers (40,000 ha) of Alto Trombetas 1 and Alto Trombetas 2 quilombola lands. ¹²² Forests and rivers are key to ensuring the subsistence of families in this region, whose lifestyle is primarily based on gathering.

The area exploited by MRN continues to expand. Over the last ten years, MRN has obtained license after license allowing the expansion of their operations. In 2018, it received authorization to operate in the area of Platô Aramã from Brazil's Institute of Environment and Renewable Natural Resources (IBAMA).¹²³ The planned deforestation of 3.6 square kilometers (362 ha) proceeded during 2020. The communities claim¹²⁴ that throughout these licensing procedures, MRN has not respected their right to Free, Prior, and Informed Consultation and Consent, as enshrined in Brazilian law.

The Pataxó Hã-Hã-Hãe from the Naô Xohā village protest against Vale and Bill 490/2007 that modifies the demarcation of Brazil's Indigenous territories (Brasília, August 2021).

More than 1,200 families live in the area surrounding the mining company, some very near its tailing dams. This region is home to the largest complex of tailing dams in the Amazon. There are 26 in total, 14 of them classified as having High Damage Potential by ANM. The fear is constant. Everyone lives in a state of shock. [MRN] installed some alarms and sirens. The people live very near the tanks. They sleep with one eye open and one eye shut. [MRN] says that it is safe, but people are concerned, says Evanilson Marinho, coordinator of the association that represents a number of impacted communities.



Brumadinho: efforts by Vale to compensate the Pataxó Hã-Hã-Hãe of Naô Xohã village

Vale detailed the settlement process that is underway in the Brumadinho region in response¹²⁸ to the publication of our third report, which shows the impacts of the environmental crime at Brumadinho on the lives of hundreds of Pataxó Hã-Hã-Hãe, in Minas Gerais state. In doing so, the company questioned the legitimacy of Indigenous peoples' occupation of the region, which has been underway since 2017, through a process known as "land recovery."

The Naô Xohã Indigenous village is constituted of a group of families from the Pataxó and Pataxó Hã-hã-hãe Peoples, along the Paraopeba River, in the municipality of São Joaquim de Bicas, which was affected by the rupture of Vale's tailings dam in 2019. Despite the company claiming that "it is making provisions to fully indemnify Indigenous groups," the Pataxó Hã-Hã-Hãe of the Naô Xohã village denounce the heightened threats to their way of life within their territory, "due to [Vale's] lack of minimum requirements for dignity of human life, such as access to water, and because of the procedures it adopted after the breach." 129

In a report¹³⁰ produced to document human rights violations in the territory, six measures of vulnerability were analyzed: a) legal; b) physical safety; c) health; d) environmental; e) food and nutrition; f) and the right to specific and special Indigenous school education.

The Pataxó report that, despite the signing of a Preliminary Extrajudicial Settlement in 2019 between Vale and the Federal Prosecutor's Office to ensure the rights of Indigenous communities, ¹³¹ the process of negotiation has proven highly stressful for the community. They report that "the contents of the settlement has caused physical and mental decline in the Indigenous community." ¹³²

In regards to the remediation process, the health status of the communities affected is of great concern. There is presently no data produced independently about the impacts of the dam rupture on health, especially from pollution of water, soil, and food. Vale's control over health providers and researchers creates skepticism in the community, given the possibility that the company could gain access to confidential information fundamental to future damage and loss assessments for proceedings on full reparations. For this reason, the Pataxó Hã-Hã-Hãe reaffirm their right to a completely independent health diagnosis, without any interference from Vale.

VALE'S

ACTIVE APPLICATIONS ON INDIGENOUS LANDS

On November 5, 2021, Vale had 75 active mining applications overlapping Amazonian Indigenous lands in the National Mining Agency (ANM) system. Of these, 32 are overlapping the Xikrin do Cateté Indigenous Land, occupied by the Kayapó and Xikrin, in Pará. The Kayapó are the company's main target. At least 45 applications are overlapping areas occupied by this people. Another 13 applications interfere with the Apyterewa Indigenous Land, of the Parakanã people. The company still possesses at least one active application that intersects with the Tanarú Indigenous Land, in Rondônia state, where isolated peoples live.

When contacted, Vale affirmed that "between 2020 and 2021... the company withdrew 89 mining applications from the ANM that interfere with Indigenous lands in Brazil." The response in its entirety can be found in the in the Endnotes. ¹³³ In September 2021, the company announced that it would request that ANM withdraw all of the applications that it still had for mining on Amazonian Indigenous lands. However, in practice, the company did precisely the opposite. Two applications are new, submitted in October of 2021, for the exploration of areas contiguous with the Xikrin do Cateté Indigenous Land,.

In both Vale's case and that of Anglo American, on page 44, ANM applications remain active. This indicates that these companies are still a threat, because these applications would advance if, for example, Bill 191/2020, which authorizes mining on Indigenous lands, becomes law.

Furthermore, in 27 Vale's applications, the ANM conducted a so-called Removal of Interference, which excludes areas overlapping the Indigenous lands, freeing up the rest of the area for use by a mining company. After the Removal of the Interference, the ANM published a Draft Permit for at least 13 Vale applications, which authorizes requests for research to begin intervention in the intended areas.

In one of the applications with Removal of Interference and a Draft Permit, specialists at ANM insisted on rejecting the company's request because it remained in the area of interference between two Indigenous lands.

It is important to stress that in all of Vale's applications for Removal of Interference, the proposed research areas were redrawn precisely along the borders of the Indigenous lands and are therefore not outside the area of interference presumed by Ordinance 60/2015 (which establishes a 10 kilometer buffer). There are no guarantees that any of the applications subject to Removal of Interference would reduce potential impacts on Indigenous lands.



Vale's announcements on withdrawal of mining applications appear to be merely strategic and rhetorical. Relying heavily on an Environmental Social Governance (ESG) corporate agenda, Vale uses them to pacify its investors with an intent to withdraw from "controversial" areas in its Brazilian operations, particularly in the Amazon and where Indigenous peoples are threatened, which are always the target of greater international scrutiny.

Vale's move is also a response to recent sanctions by investors due to their environmental record. In May 2020, the company lost US\$650 million of investment from

Norway's sovereign fund. The fund's stated reason for divestment was the tailings dam disasters in Mariana and Brumadinho. Since then, the company has been on the fund's exclusion list, for severe environmental impact. Controlled by Norges Bank, the fund concentrates production revenue from Norway's oil and gas industry. It is among the largest investors in the world, possessing around 1.5% of all the shares listed globally in over 9,200 companies spanning 74 countries. It manages over US\$1 trillion in assets. It manages over divestment from Vale, the influence and the potential domino effect caused

by this financial giant on other investors could be immense.



-2



Founded in 1917 in South Africa, Anglo American is one of the largest mining companies in the world. It has operations in Africa, South America (Brazil, Colombia, Peru, and Chile), China, India, Australia, and Canada. It produces diamonds, copper, platinum, iron ore, coal, and nickel. The company has 4,000 employees in Brazil and 63,000 worldwide¹³⁸ with global profits of US\$10 billion (R\$56,7 billion) in 2020 alone. It is headquartered in London, England.

Rights violations caused by Anglo's operations are wide-ranging, and occur from Zambia¹³⁹ to Brazil. The interruption of access to water in the communities affected by their operations¹⁴⁰ is among the principal impacts associated with the company's activities. Anglo's main Brazilian project, known as Minas-Rio, includes a 525-kilometer slurry pipeline that uses enormous amounts of water to transport iron ore from the region of Conceição do Mato Dentro, in Minas Gerais state, to Rio de Janeiro.

The effects of Anglo's operation in the region are far-reaching, impacting the municipality of Carmésia, situated at nearly 30 kilometers from the mine. Local communities report increasing shortages of water, including the pollution of waterways and destruction of springs.¹⁴¹ The Pataxó people of the Fazenda Guarani Indigenous Land have reported the drying up of springs since Anglo began operations. In many cases, water supply has become completely dependent on the company¹⁴² and is performed by tanker trucks, which results in frequent interruptions to access.

Since 2018, the company has shown interest in expanding operations into the Amazon. Anglo American's desire to mine areas in Pará state could drive more destruction, this time impacting the Munduruku people. The report *Complicity in Destruction III* exposed various applications submitted by Anglo to the ANM for mining research on Munduruku land.¹⁴³ Based on these findings, APIB launched a campaign at the end

of 2020, in conjunction with Amazon Watch and the Munduruku, to pressure Anglo American into withdrawing all its mining applications on Brazilian Indigenous lands.

Our efforts resulted in Anglo American formally committing to withdraw 27 applications from the ANM¹⁴⁴ where the company had been approved to prospect copper on Indigenous lands located in the states of Mato Grosso and Pará. According to Anglo, ANM has been informed of the application withdrawal and the company is still awaiting an update to the agency's database.

Of all the applications submitted by Anglo American¹⁴⁵ and approved by the ANM, 13 directly impacted the Munduruku's Sawré Muybu Indigenous territory, in southwestern Pará. Although prospecting was authorized and the company was aware they overlapped Indigenous land, the company never contacted the Munduruku. These actions violated its own internal policy, which states that Indigenous peoples must be consulted "as soon as possible in the discovery phase." ¹⁴⁶

"It is a victory, but we want to know whether Anglo American will actually keep its word or if it will return to our territory using other means, like the government does by creating new laws to enter Indigenous land. We resist and we will continue to resist. We endure many attacks, with Bill [191/2020] in Congress, with logging companies, illegal miners... and land grabbers inside our territory. So people don't trust them. We will trust only if in two, three years, we can live in peace. We will see if Anglo American keep its word, because we don't believe anything only on paper. The Constitution is to be respected, but it is being violated and torn up."

> Alessandra Munduruku, coordinator of the Association Pariri of the Middle Tapajós.

ANGLO AMERICAN'S ACTIVE APPLICATIONS ON INDIGENOUS LANDS

Anglo American has 65 active mining applications in the National Mining Agency database which overlap 11 Indigenous lands, threatening six Indigenous peoples (as of November 5, 2021). Since April 2020, 25 applications submitted by Anglo overlapping Kayapó, Sawré Muybu, and Badjonkore Indigenous Lands, which are occupied by the Munduruku and Kayapó, have been canceled. The company requested the withdrawal of at least 29 applications from its total mining applications.

In October 2021, the mining company confirmed to the authors of this report that it had withdrawn all existing applications at ANM that overlap Indigenous lands. However, as long as these applications continue to be active in the agency's database, they pose risks to the Amazon and, for this reason, deserve follow-up and attention.

Anglo also has pending Removal of Interference requests, in which the ANM redraws the proposed research areas of the requested concessions, removing portions overlapping Indigenous lands, as explained in the section on Vale.



The Volta Grande Project is a project of Belo Sun Mineração, a subsidiary of the Canadian firm Belo Sun Mining Corp., which is listed on the Toronto Stock Exchange. Located in the municipality of Senador José Porfírio, in the state of Pará, the project will cost an estimated US\$215 million (R\$1.22 billion)¹⁴⁸ and is projected to produce five tons of gold per year with a minimum service life of 12 years, with the possibility of extending this operational period, depending on the region's mineral potential. If the project is implemented, Belo Sun will be the largest gold mine in Latin America and the final blow to the Xingu River's Volta Grande (also known as its Big Bend) region. The company waged a years-long effort to win legal battles and has faced constant suspensions of its licenses¹⁵⁰ as a result of its violation of the rights of the region's Indigenous

peoples and other traditional communities, such as riverside dwellers and small-scale farmers. Local communities, independent specialists, and Brazilian authorities responsible for the protection of human rights and environmental legislation have shown that Belo Sun has not complied with a series of legal obligations in its environmental licensing application. In particular, the company has conducted insufficient analysis of its social and environmental risks and has failed to fulfill its obligation to perform a thorough process of Free, Prior and Informed Consultation and Consent with all Indigenous peoples and traditional communities who would be impacted by the project.¹⁵¹

Belo Sun's entire impact assessment ignores the irreversible environmental changes resulting from

the construction of the Belo Monte hydroelectric dam adjacent to their planned mine, as well as the cumulative impacts that large-scale gold mining could have on the Xingu River's Volta Grande. This region, which possesses some of world's greatest biodiversity, is already suffering the impacts of Belo Monte's rerouting of the Xingu River, which include the drying up of the river and its streams, the loss of native species, and the destruction of the traditional ways of life of riverine peoples. In addition to the ethnic groups Juruna (Yudjá), Arara and Xikrin, the region is home to other Indigenous peoples and different communities of riverside dwellers, most recently including extractivists and settlers.¹⁵²

Belo Sun's plan for a tailings dam would be similar in size to the Samarco dam built by Vale/BHP — which burst in Mariana, in 2015, resulting in the most serious environmental crime in Brazil's history. An independent technical assessment of the proposed dam¹⁵³ indicated that, if it fails, at least nine million cubic meters of by products and tailings could reach the Xingu River and travel more than 40 kilometers in two hours, provoking irreversible damage to the region. These tailings contain highly toxic metals, such as cyanide, arsenic, and mercury. According to the study, Belo Sun's proposal violates current Brazilian regulations for such dams.

Since its initiation, the project has faced numerous legal challenges by the Federal Prosecutor's Office, the State Prosecutor's Office, the State Public Defender's Office, and the Federal Public Defender's Office. There are seven lawsuits working their way through the Brazilian justice system calling for the nullification of Belo Sun project's licenses and suspension of its environmental license. The lawsuits point to various flaws in the licensing process and in the project's technical studies. One lawsuit resulted in a standing ruling that suspended Belo Sun's installation license. No date has been set for the resumption of the project.

In addition to the flaws in the impact studies and the lack of prior consultation and consent from Indigenous and traditional communities, other irregularities include the illegal acquisition of federal public lands in the three areas of the Xingu's Volta Grande where the company intends to mine – Vila da Ressaca, Garimpo do Galo and Vila Ouro Verde – and the illegal removal of families that live and work in these areas. This practice, together with the installation of company signs prohibiting traditional activities, such as hunting and fishing, collection of Brazil nuts, acaí, and medicinal plants in locations allegedly acquired, have caused enormous harm to the communities. Brazil's judiciary recognizes these as illegal practices and has determined that the company must immediately suspend any forced evictions of residents of the areas of the Xingu's Volta Grande and remove the restrictive signage placed at the location. 157

Despite the court ruling, armed guards of a property security firm contracted by Belo Sun have been surveilling Vilas Ouro Verde, Ressaca and Garimpo do Galo since April 2021. The presence of this private armed force on public lands, acting on behalf of Belo Sun, frightens and threatens traditional community members, who have become fearful of moving through the region and conducting their traditional activities, which are fundamental for survival and ability to thrive on their own land. Lastly, communities living in other settlements near the project report that they have not been consulted about the company's plans, or informed of the project's possible impacts. None of this misconduct stopped the company from negotiating the acquisition of a farm in Mato Grosso state with Brazil's Federal Land Reform Agency (INCRA), to serve as compensation for the plots of land Belo Sun illegally acquired. This negotiation continues behind closed doors without involving affected community members, many who have lived in the area for more than 30 years.

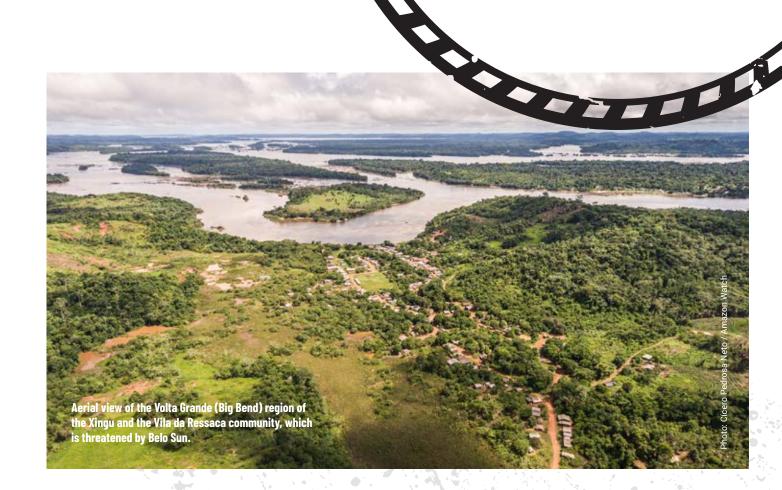
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"We saw things happen very quickly. Rights being taken away and violated. No one can fish now on that side, no one can gather açaí. We can do none of what we did before. Our lives depend on nature. Today this is a serious problem. Belo Sun used dirty tricks, corruption...They said they have no money to give us, but they have money to pay people to oppress us. For some time we have been afraid to [be seen], and have to run and hide. Out of fear of dying. These are crimes. The community is very rich...We even began a reforestation project. It ended up involving everyone, as a community. And then people say 'I like this project, I want to stay here.' They are using the argument that Brazil is going through a crisis, and that this company [Belo Sun] is good. Good for what? For whom? This place here will no longer exist, it will disappear because of capitalism, money. For them, we are nothing. But we are fighting for our rights."

> Idglan Pereira, resident of Vila da Ressaca, in Volta Grande do Xingu

In July 2021, Amazon Watch, along with an international coalition in defense of life on the Xingu River, 158 documented a series of false statements released by the Canadian company Belo Sun in a letter to the Ontario Stock Exchange. 159 Among these statements were those made by the company's president, Peter Tagliamonte, which minimize the socio-environmental, legal and financial risks of the Volta Grande Project. In a March 8, 2021 presentation at the Prospectors & Developers Association of Canada event (PDAC), an international convention on minerals and the mining industry, Mr. Tagliamonte stated that the only impediment for starting the project was the COVID-19 pandemic, and that construction was expected to start at the end of 2021. 160 Similar affirmations were made in more recent statements by the company and by Mr. Tagliamonte himself on other occasions.

Mr. Tagliamonte's statements are false. There is evidence that the mining company violated the Ontario Stock Exchange's information dissemination policy by not revealing vital information about the project to current and potential investors.



BELO SUN'S

ACTIVE APPLICATIONS ON INDIGENOUS LANDS

Belo Sun has 11 active mining applications that overlap Indigenous territories in the ANM system, as of November 5, 2021, all of them for gold prospecting. The two Indigenous Lands overlapped by applications are Arara da Volta Grande do Xingu and Trincheira Bacajá, with seven and four applications, respectively.

In three applications submitted by the mining company affecting the Arara da Volta Grande Indigenous Land, the ANM conducted a Removal of Interference procedure and they remain active in the agency's system. Removal of Interference was found in two other Belo Sun cases, one of which affects the area of the Trincheira Bacajá Indigenous Land.

There are no records of requests for the withdrawal of applications that interfere on Indigenous lands. In at least one application the company was fined, in an event recorded a month after having initiated its research phase, in 2019.



Mining companies can violate Indigenous rights long before their operations begin, and Potássio do Brasil is an example of this dynamic. The company's Potássio Autazes Project, slated to be built in the municipality of Autazes, 110 kilometers from Manaus in Amazonas state, will require investments of around US\$2.3 billion (R\$13 billion). It has the goal of extracting 770 million tons of potassium, which is an essential mineral in the production of fertilizers. This plan is directly related to the company's relationship with Brazilian agribusiness, one of the biggest villains in the destruction of the Brazilian Amazon.

Potássio's actions intentionally ramp up pressure and conflict on local communities. The company does not respect the right to consultation and consent of Indigenous communities, primarily that of the Mura, with a population of 14,000 people who occupy 44 villages in the region. Once initiated, the activities of Potássio would affect areas of the Jauary and Paracuhuba Indigenous Lands, ¹⁶¹ presenting enormous risks to this region, such as the pollution of water sources essential to community life. ¹⁶² This case was highlighted for the first time in our *Complicity in Destruction III* ¹⁶³ report, upon which the company denied both responsibility for project impacts, and its violation of the right to Free, Prior and Informed Consultation and Consent of Indigenous Peoples.

A few months after the release of the report, without the knowledge of Brazilian authorities, and before the legal process was finalized for project installation, Potássio do Brasil signed an agreement with the Chinese construction firm CITIC¹⁶⁴ to build a mineral complex in Autazes. The contract specifies the excavation of a nearly 1,000 meter deep mine, a factory for the production of agricultural inputs and its associated infrastructure, and a road and a port

on the Madeira River basin, eight kilometers from the mine. Worth US\$1.94 billion (R\$11 billion), the contract was signed at the end of 2020 without any consultation of its stakeholders.

The company's contract is in noncompliance with a court order. In 2017, the company signed an agreement with the Federal Prosecutor's Office whereby it agreed to not advance operations "without prior court approval." The ruling also suspended the project's environmental licensing until the company concluded proper consultations

with the Mura people and determined that the Potássio must provide financial support to the Mura's efforts to develop their own consultation protocol.

Nevertheless, Potássio do Brasil failed to disclose to the Federal Prosecutor's Office both the billion dollar contract with CITIC and its intention to attract investment from the United States. Rather, the mining company announced it intends to raise US\$50 million in a first round of fundraising.¹⁶⁶

POTÁSSIO DO BRASIL'S ACTIVE APPLICATIONS IN THE NATIONAL MINING AGENCY

Potássio do Brasil had 19 active mining applications registered with the ANM, as of November 5, 2021, overlapping areas on three Indigenous lands. Of this total, 14 applications interfere with the territory of the Mura people, four overlap Munduruku lands and one overlaps the lands of the Kaxuyana people. Jauary is the Indigenous land most impacted.

Research reports were not approved by ANM for 12 of the applications submitted. In another four, ANM granted an extension of the applications and reported the detachment of the areas of interference with Indigenous lands. One application submitted to ANM was withdrawn.



The Mura community protests against mining projects in the region of Autazes, Amazonas state.



Founded in 1969 by the Brazilian group Paranapanema, Mineração Taboca models itself as "the largest producer of refined tin in Brazil," and claims it is "transparent and committed to the environment." In 2020, Taboca, which is also exploring niobium and tantalum, had US\$134 million (R\$753 million) in profits. 167 In 2008, the Peruvian group Minsur purchased and acquired shareholder control of Mineração Taboca and its subsidiary, Mamoré Mineração e Metalurgia, 168 in a deal worth US\$ 150 million (R\$850 million). 169 Minsur is one of the world's principal tin producers, a mineral that is consumed primarily by China, which imports around 50% of the company's total.

The Pitinga Mine in Amazonas state is owned by Taboca. The tin producing mine was built and began operations in 1982 and has an estimated operational life of 100 years. The mining operation affects the Waimiri Atroari people. ANM data shows the existence of 99 applications that overlap

the Waimiri Atroari Indigenous Land, nearly all prospecting-related and submitted in the 1980s.

The Waimiri Atroari affirm that, when their territory wasn't demarcated, but rather "closed for the purposes of attraction and pacification," its size was reduced by 5,260 square kilometers (526,000 ha), with the entirety of this area transferred to Paranapanema/Taboca. "A process of economic dependence on the mining company" was so serious that "the economic production systems of the Waimiri Atroari were being destroyed." Illnesses such as measles, malaria, parasites, and leishmaniasis affected the entire Waimiri Atroari population, producing deadly epidemics for the Indigenous community.

Today, over 2,000 Indigenous people live in the Waimiri Atroari Indigenous Land, located between the states of Amazonas and Roraima. The Indigenous territory contains peoples living in

voluntary isolation, who are particularly vulnerable to mining operations. During the Brazilian military dictatorship, this community was almost completely decimated, reduced from 3,000 to a little more than 300 people, in a genocide that remains unpunished even today. This history was explored in our previous report, *Complicity in Destruction III*. 172

Recently, a mining tailings leak from Taboca facilities reached rivers inside the Waimiri Atroari Indigenous Land which are essential to the survival of the population. The contamination was identified by Indigenous inhabitants and confirmed in the course of two expeditions involving the National Indigenous Foundation (FUNAI) and the environmental coordinator of the mining company itself. Following the trail of pollution, the team arrived at the Taboca facilities and verified that the

dams inside the mining company were leaking, with further proof provided by drone photography. A detailed report shows that the contamination has already altered the quality of the Tiaraju and Alalaú Rivers, which is used by Indigenous people for fishing, drinking, hygiene, and food preparation. 22 villages were affected by the spill. The case is under investigation by the Federal Prosecutor's Office and the Amazonas State Environmental Institute.

Taboca denies any desire to operate on Indigenous lands, claiming: "Our performance is based on principles of social and environmental responsibility and we have greater respect for our neighbors, so we do not operate, nor will we operate on Indigenous lands." This stance is contrary to the company's confidential prospecting applications at the ANM.

TABOCA/ MAMORÉ'S

ACTIVE APPLICATIONS IN THE NATIONAL MINING AGENCY

As of November 5, 2021, 35 applications for research and extraction overlapping Indigenous lands were active in the ANM in the name of the two Minsur companies. Taboca Mineração had one application on the Kayapó territory, and Mamoré Mineração e Metalurgia, had 34 applications on Waimiri Atroari Indigenous Land.

In the case of Mamoré Mineração, in 2004, the mining company requested confidentiality for all its applications, after determining interference on Indigenous lands. In only one case did Mamoré withdraw its application. For the others, the company is working to adjust applications to remain compliant, which can be achieved by employing the Removal of Interference procedure. In 31 cases, the company has already met the requirements. However due to the confidentiality clause, it is not possible to identify what type of requirements were met.

Mineração Taboca's application for extraction was approved in 1984. FUNAI commented on the application twice, in 1979 and 1980, concerning interference on Waimiri Atroari Indigenous Land. At the time, the company alleged that there were inconsistencies in Indigenous lands demarcation processes. The case was then grouped together with other applications. In December 2020, a technical opinion by the Superintendent of Mineral Production at the ANM requested temporary suspension of the application. The opinion pointed to various inconsistencies, such as the finding that tin had been mined, when the application had been for cassiterite. In September of 2021, the company submitted documents showing compliance, but the information in the electronic information system (SEI) is confidential and it is not possible to determine which requirements were met.



OTHER INTERNATIONAL MINING GIANTS WITH **AN EYE ON AMAZONIAN INDIGENOUS LANDS**

A search of applications at the National Mining Agency identified that other major global mining companies are also interested in exploring Amazonian Indigenous lands. These include Glencore, AngloGold Ashanti, and Rio Tinto. Despite the relatively low number of applications in their name, the existence of these applications indicates interest from these companies, and the threats that they represent, if legislation like Bill 191/2020 were to advance.

As of November 5, 2021, the Swiss company **Glencore** had three active applications to prospect gold and copper submitted to the ANM overlapping the Kayapó and Xikrin do Cateté Indigenous Lands in Pará state, two territories that are already highly impacted by Vale's operations. Additionally, Glencore has expanded its interests in Brazil, recently becoming a principal shareholder in CSN Mineração, one of Brazil's leading iron ore mining companies.

Similarly, the South African firm **AngloGold Ashanti** has three applications for gold prospecting, also on Kayapó lands in Pará. With almost 200 years of operations in Brazil, primarily in Minas Gerais state, the company is known for recurring cases of silicosis in worker's lungs¹⁷⁶ due to negligence. In Colombia, AngloGold is accused by Indigenous communities of usurping part of their territory, 177 not consulting them about operations, and threatening those who oppose the plans of the mining company.

The Australian firm **Rio Tinto** has 14 active mining applications in the ANM system for exploration of aluminum and aluminum ore in areas that overlap the Indigenous lands of Rio Parú D'este, Kaxuyana-Tunayana and Zoe, all in Pará. The mining company is notorious for its rights violations against Aboriginal peoples in Australia. In 2020, the company destroyed traditional peoples' sacred locations, including ancient caverns located in the Juukan Gorge, 178 which date back 46,000 years, during the expansion of their iron ore mine.

These companies all have a clear history of violating the rights of Indigenous peoples and destroying nature.





WHO FINANCES MINING AND ENABLES ITS ADVANCE INTO INDIGENOUS TERRITORIES?

The expansion of mining into new areas, including primary forests and Indigenous lands, relies upon financing from some of the world's largest banks and asset managers. Many of these financial firms were exposed in previous editions of the Complicity in Destruction series, and this new research outlines the increasing risk and impetus for changes in policies and practices. This chapter explores the dynamics behind the financing of industrial mining and reveals the leading financiers enabling operations of the mining companies that encroach upon Indigenous lands in Brazil, particularly in the Amazon rainforest.



THE CURRENT ECONOMIC CONTEXT THAT FOSTERS MINING

The rising price of mineral commodities, such as iron ore and copper, has driven a new "boom." The market value of the world's 50 largest mining companies rose to over US\$1 trillion for the first time, during the first year of the COVID-19 pandemic. 179 In 2021, this value rapidly grew, with the world's largest mining companies topping US\$1.4 trillion 180 in market value by the month of July. Thirty mining companies have doubled in value during the pandemic.

The primary beneficiaries are, in descending order: BHP, Rio Tinto, Vale, Glencore, and Anglo American. These profits encouraged banks and asset managers to continue considering mining investments as lucrative, ignoring the long history of violations and impacts caused by this sector, which were exacerbated by the monumental COVID-19 health emergency.

As with other industries, the mining sector has become even more financialized. ¹⁸¹ That is evidenced both by an increase in speculative betting on mineral prices, as well as a decrease in long-term strategic decision-making and investments in safety in favor of short-term profit-making. ¹⁸² This speculative thinking not only serves to further distance mining executives and investors from dynamics in the regions and territories where extraction occurs, ¹⁸³ but has also led to the deregulation of the mining industry.

Brazil, as a leading exporter of mineral commodities to the world, has recently courted greater participation of global financial institutions in the mining sector. This process includes the current administration's prioritization of mineral prospecting events for investors, ¹⁸⁴ and an aggressive discourse touting the opening of new mining frontiers. As a result, mining companies, with increasingly close ties to the financial market, view Brazil as a unique opportunity to expand their profits.





The mining companies highlighted in this report — Vale, Anglo American, Belo Sun, Potássio do Brasil, Mineração Taboca/Mamoré Mineração e Metalurgia (Minsur Group), Glencore, AngloGold Ashanti, and Rio Tinto — have received a total of \$54.1 billion in financing from Brazil and internationally (when combining the banks and asset managers that own shares, bonds, or provide them loans or underwriting).

For the second year in a row, our findings indicate that major institutions headquartered in the United States continue to be the leading financiers of mining-driven destruction, with U.S.-based companies holding the most significant shares and bonds, or offering the largest loans or underwriting, to the mining companies highlighted in this report. The financial firms Capital Group, BlackRock, and Vanguard invested a combined US\$14.8 billion in mining companies with

interests on Indigenous lands and a history of rights violations.

Capital Group, a U.S.-based financial services company, holds over US\$7 billion in shares in these companies. BlackRock, the world's largest asset management company, holds almost US\$6.2 billion in shares, and asset manager Vanguard, around US\$1.6 billion.

Brazilian financial institutions are notably present on the list of the five largest financiers. The Brazilian pension fund PREVI (Banco do Brasil's Employee Pension Fund), is responsible for the largest investments in these mining companies, with over US\$7.4 billion, followed by the private bank Bradesco, with almost US\$4.4 billion. See the list of most frequent investors in the Appendix (pages 80 and 81).

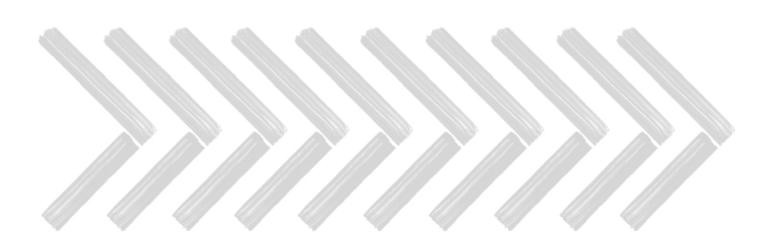


TOP 5 FINANCIERS - CREDITORS AND INVESTORS

US\$ million (January 2016 - October 2021)

Financial Institution		Loans	Underwriting	Bondholding	Shareholding	Total
PREVI	BRA				7,441	7,441
Capital Group	USA			6	7,050	7,056
BlackRock	USA			43	6,129	6,172
Bradesco	BRA	14	159		4,388	4,560
Vanguard	USA			37	1,549	1,586

Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.



TOP CREDITORS: FRANCE, THE U.S., GERMANY, AND JAPAN: THE MAIN CREDITORS OF INDUSTRIAL MINING IN BRAZIL

In the last 5 years, between January 2016 and July 2021, **the mining companies analyzed by this report received US\$12.2 billion** in loans and underwriting exclusively for their activities in Brazil. Most were in the form of loans, with 77% of the total, worth US\$9.4 billion, the standout year being 2019, prior to the pandemic, with US\$4.3 billion.

TOP 20 CREDITORS

US\$ million (January 2016 - October 2021)

■ Loans ■ Underwriting



Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.

For the period analyzed, the French bank **Crédit Agricole** was the largest creditor of the mining companies, with US\$698 million in loans and underwriting, followed closely by U.S.-based **Bank of America**, with US\$670 million. The German bank **Commerzbank** came in third place with US\$668 million, followed by the conglomerate **Citigroup**, also of the United States, with US\$651 million, and by the **SMBC Group** of Japan, with US\$525 million.

LOANS AND UNDERWRITING SERVICES

US\$ million (January 2016 - October 2021)

Companies	Loans	Underwriting	Total
Vale	3,789	312	4,.100
Anglo American	2,451	1,487	3,938
Glencore	1,628	586	2,214
Rio Tinto	1,050	88	1,138
AngloGold Ashanti	287	178	465
Minsur	178	111	289
Belo Sun		57	57
Potássio do Brasil	2	-	2
Total	9,385	2,817	12,203

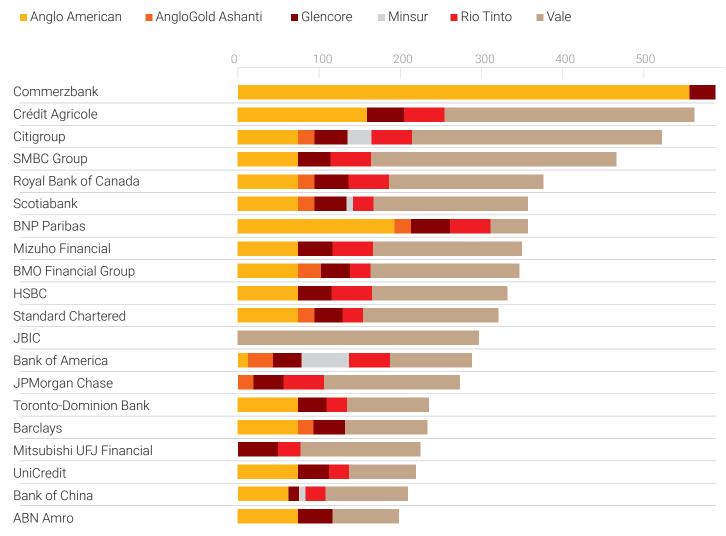
Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.

Vale was the mining company that attracted the most in loans and underwriting, with US\$4.1 billion, followed by Anglo American (US\$3.94 billion), Glencore (US\$2.2 billion), Rio Tinto (US\$1.1 billion), Anglo Gold Ashanti (US\$465 million) and Minsur (US\$289 million). The amounts identified for Belo Sun (US\$57 million) and Potássio do Brasil (US\$2 million) were smaller. Both companies are not operational yet, and could attract more investment if they are granted the licenses they have requested.

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LOANS ABOVE US\$ 20 MILLION

Top 20. US\$ million (January 2016 - October 2021)



	Anglo American	AngloGold Ashanti	Glencore	Minsur	Rio Tinto	Vale
Commerzbank	556		32			
Crédit Agricole	159		45		50	308
Citigroup	74	20	41	29	50	308
SMBC Group	74		40		50	302
Royal Bank of Canada	74	20	42		50	190
Scotiabank	74	20	40	8	25	190
BNP Paribas	193	20	48		50	46
Mizuho Financial	74		42		50	184
BMO Financial Group	74	28	36		25	184
HSBC	74		41		50	167
Standard Chartered	74	20	35		25	167
JBIC						297
Bank of America	12	31	35	59	50	101
JPMorgan Chase		19	37		50	167
Toronto-Dominion Bank	74		35		25	101
Barclays	74	19	39			101
Mitsubishi UFJ Financial			49		28	148
UniCredit	74		38		25	82
Bank of China	62		13	8	25	101
ABN Amro	74		42			82

Note: Potássio do Brasil and Belo Sun have not received any loans. Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.

UNDERWRITING SERVICES ABOVE US\$ 20 MILLION Top 20. US\$ million (January 2016 - October 2021)

■ Anglo American ■ An	igloGold Ashanti	■ Belo Sun	■ Glencore	Minsur	■ Rio Tinto	■ Vale	
	0	50	100 15	0 200	250	300	350
Bank of America							
Santander							
Bradesco							
JPMorgan Chase							
Barclays							
Crédit Agricole							
Citigroup							
BNP Paribas							
Standard Chartered							
Royal Bank of Canada							
Mizuho Financial							
HSBC							
Goldman Sachs							
Banco do Brasil							
Commerzbank							
Credit Suisse							
Toronto-Dominion Bank							
SMBC Group							
Morgan Stanley							
UBS							

	Anglo American	AngloGold Ashanti	Belo Sun	Glencore	Minsur	Rio Tinto	Vale
Bank of America	39	14		22	56	13	238
Santander	68			96	56	13	
Bradesco				85			74
JPMorgan Chase	114	14		21			
Barclays	116	14		15			
Crédit Agricole	109			12		13	
Citigroup	82	14		20		13	
BNP Paribas	93	14		13			
Standard Chartered	93	14		11		2	
Royal Bank of Canada	93	14		7			
Mizuho Financial	102			11			
HSBC	101			12			
Goldman Sachs	103	7					
Banco do Brasil				85			
Commerzbank	71			9			
Credit Suisse	45			18		13	
Toronto-Dominion Bank	34		21	8		2	
SMBC Group	49			7		2	
Morgan Stanley	45			9			
UBS	24			18			

Note: Potássio do Brasil has not received underwriting services. Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.



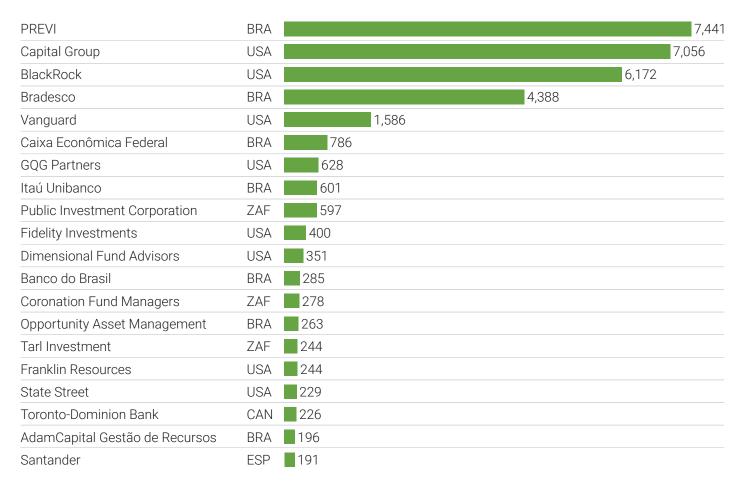
TOP INVESTORS: INSTITUTIONS IN BRAZIL AND THE UNITED STATES: THE MAIN SHAREHOLDERS OF THE COMPANIES HIGHLIGHTED IN THIS REPORT

As of October 2021, financial institutions held investments in shares and bonds of the featured companies totaling US\$41.9 billion attributable exclusively to activities in Brazil. These investments are made up almost entirely of shares, 98%, with only 2% in bonds.

The principal investor in shares and bonds of the selected companies is the Brazilian pension fund **PREVI** with US\$7.4 billion, followed by the U.S. investment management firm **Capital Group**, with investments in Brazilian mining operations exceeding US\$7.05 billion. U.S.-based asset manager giant **BlackRock** follows with nearly US\$6.2 billion.

TOP 20 INVESTORS

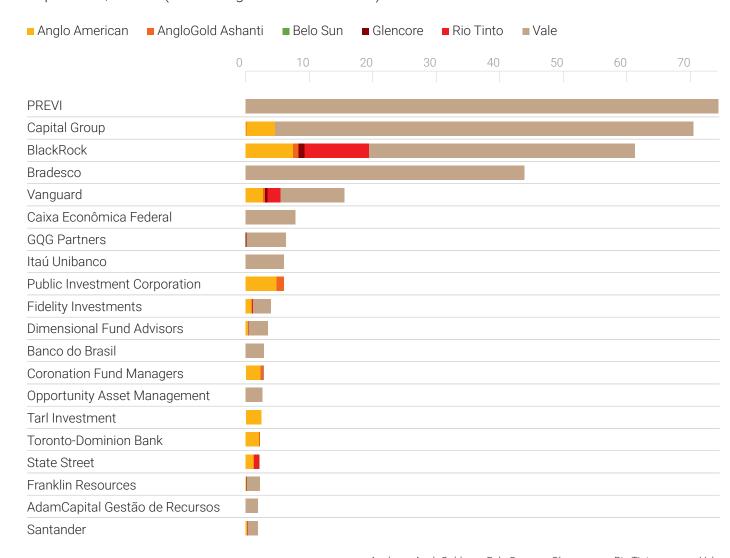
Shares and bonds (latest filing date October 2021, US\$ million)



Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021

SHAREHOLDINGS ABOVE US\$ 100 MILLION PER COMPANY

Top 20. US\$ million (latest filing date October 2021)

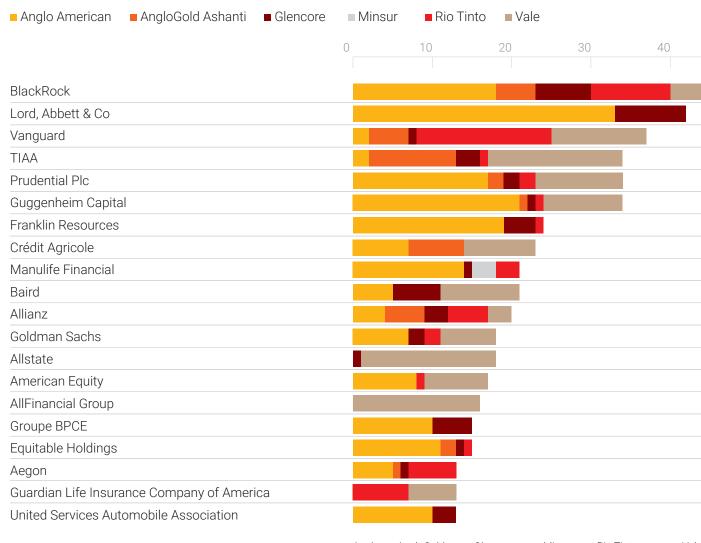


	Anglo American	AngloGold Ashanti	Belo Sun	Glencore	Rio Tinto	Vale
PREVI						7,441
Capital Group	4	3			451	6,592
BlackRock	743	85		94	1,019	4,188
Bradesco						4,388
Vanguard	274	26		44	202	1,004
Caixa Econômica Federal						786
GQG Partners				11		616
Itaú Unibanco						601
Public Investment Corporation	483	114				
Fidelity Investments	91	3		5	9	285
Dimensional Fund Advisors	32	0		6	4	307
Banco do Brasil						285
Coronation Fund Managers	228	45		4		
Opportunity Asset Management						263
Tarl Investment	244					
Toronto-Dominion Bank	220				1	5
State Street	122	3		4	78	15
Franklin Resources	3	1	2		12	201
AdamCapital Gestão de Recursos						196
Santander	20				4	166

Note: Minsur did not receive investments in shares from the highlighted institutions and it was not possible to identify data for Potássio do Brasil. Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.

BONDHOLDINGS ABOVE US\$ 10 MILLION PER COMPANY

Top 20. US\$ million (latest filing date October 2021)



	Anglo American	AngloGold Ashanti	Glencore	Minsur	Rio Tinto	Vale
BlackRock	18	5	7		10	4
Lord, Abbett & Co	33	0	9			
Vanguard	2	5	1		17	12
TIAA	2	11	3		1	17
Prudential Plc	17	2	2		2	11
Guggenheim Capital	21	1	1		1	10
Franklin Resources	19		4		1	
Crédit Agricole	7	7				9
Manulife Financial	14		1	3	3	
Baird	5		6			10
Allianz	4	5	3		5	3
Goldman Sachs	7		2		2	7
Allstate			1		0	17
American Equity	8				1	8
AllFinancial Group						16
Groupe BPCE	10		5			
Equitable Holdings	11	2	1		1	
Aegon	5	1	1		6	
Guardian Life Insurance Company of America					7	6
United Services Automobile Association	10		3			

Note: Belo Sun did not receive investments in bonds from the highlighted institutions and it was not possible to identify data for Potássio do Brasil. Source: Profundo Research and Advice. Complicity in Destruction IV - Financial Links. Nov. 2021.



SHAREHOLDING AND BONDHOLDING PER COMPANY

US\$ million (latest filing date October 2021)

Companies	Bondholding	Shareholding	Total
Vale	185	31,563	31,748
Anglo American	388	4,927	5,314
Rio Tinto	146	3,352	3,498
AngloGold Ashanti	81	508	588
Glencore	106	474	581
Minsur	7	91	98
Belo Sun		87	87
Total	913	41,001	41,914

Source: Profundo Research and Advice. Complicity in Destruction IV Financial Links. Nov. 2021.

Once again, Vale attracted the largest investments in both shares and bonds associated with its activities in Brazil, with US\$31.7 billion, followed by Anglo American (US\$5.3 billion), Rio Tinto (US\$3.5 billion), Anglo Gold Ashanti (US\$588 million), and Glencore (US\$581 million). Smaller investments were identified for Minsur (US\$98 million) and Belo Sun (US\$87 million), while none were identified for Potássio do Brasil. It is noteworthy that in 2020 Vale concluded a corporate restructuring – started in 2017 – which enabled the company to trade a much larger number of shares in the market, attracting a great deal of foreign investment. Today, approximately 60% of Vale's capital is under foreign control.¹⁸⁷



THE STRUGGLE FOR LIFE AND TERRITORY

Indigenous peoples have resisted the threats imposed by industrial and wildcat mining for centuries. Despite the most recent push by the Bolsonaro administration to open up Indigenous territories to mining – with backing from local politicians, business people, multinational companies, segments of the financial market, and even foreign ambassadors – its strategy to build popular support for this agenda falters in the face of Indigenous mobilization.

"If the project of death has no borders, neither will the project that protects life."

> Célia Xakriabá, (in a plenary session on industrial and wildcat mining at the Struggle for Life Camp, August 2021)





Besides Apib, the main Indigenous organizations of Brazil, such as the Coordinating Body of Indigenous Organizations of the Brazilian Amazon (COIAB), in addition to the representative associations of many indigenous groups, have already taken a clear stance against industrial and wildcat mining. The struggle against these activities was among the principal drivers of the historic mobilizations organized by Brazil's Indigenous movement between July and September of 2021; Rise for the Earth, 188 the Struggle for Life Camp 189, and the second Indigenous Women's March. 190

The Struggle for Life Camp saw more than 6,000 Indigenous people, gathered in Brasília to follow the ruling of Brazil's Supreme Court on the so-called "Marco Temporal." Indigenous communities gathered to defend their constitutional right to maintain their territories free from industrial and wildcat mining. Resistance to Bill 191/2020 was among the rallying cries of the mobilizations. In a historic alliance, leaders from the Indigenous groups most affected by industrial and wildcat mining — including the Kayapó, Xikrin, Munduruku, Yanomami, and Ye'kwana — released a letter opposing wildcat mining, positioning themselves squarely against the bill. 191

"We won't trade the lives of our children and our grandchildren for gold...The government tries to divide us, but it is only a minority of Indigenous people that support these activities, without knowing that they are helping to end their own people"

Excerpts from the Kayapó, Munduruku, Yanomami, Ye'kwana, and Xikrin letter.

In addition to national mobilizations, Indigenous people throughout Brazil and Latin America have found various ways of resisting mining in their territories and alternatives to this predatory development model. These alternatives consider the sustainability of life, and not profit, as their main objective.

TERRITORIAL RESISTANCE STRATEGIES: SELF-DEMARCATION OF SAWRÉ MUYBU INDIGENOUS LAND AND MONITORING OF MUNDURUKU LANDS

Sawré Maybu territory extends 1,780 square kilometers (178,000 ha) and has been the traditional home of the Munduruku people for millennia, who hunt and fish in this area. The land's administrative demarcation procedure has languished for years at Brazil's National Indigenous Foundation (FUNAI), where it awaits a final approval from the Justice Ministry in order to officially demarcate the territory. Although the land is already recognized by authorities, its final demarcation faces resistance from within the federal government due to claims of mining interests over this area and plans to build a complex of hydroelectric dams on the Tapajós River – which would flood a large swath of Sawré Muybu.

Due to FUNAI's obstruction, the Munduruku decided to demarcate their own land. During their self-demarcation process, they traveled the borders of their land, identifying and denouncing illegal invasions, and installed signs delineating the Indigenous land while reaffirming their ties with the territory. Self-demarcation

requires intense logistical, political and spiritual organization. The Munduruku continue the process to this day, in defense of their ancestral lands of the middle and upper Tapajós basin.

"We made the demarcation to ensure that future generations will have the right to live on our territory, those of the future and those of the present, because FUNAI still hasn't demarcated our area".

> Juarez Saw Munduruku Cacique

In addition to their self-demarcation, seven Munduruku associations and organizations, including the Munduruku Wakoborun Women's Association and the Munduruku Ipereg Ayu Movement, joined forces to systematically monitor their territory. 194 While conducting surveillance expeditions in defense of their lands they combined their traditional technologies with new ones, such as GPS and georeferencing.

SOCIOECONOMIC RESISTANCE STRATEGIES: SUSTAINABLE MANAGEMENT OF THE KAYAPÓ-PANARÁ TERRITORIES

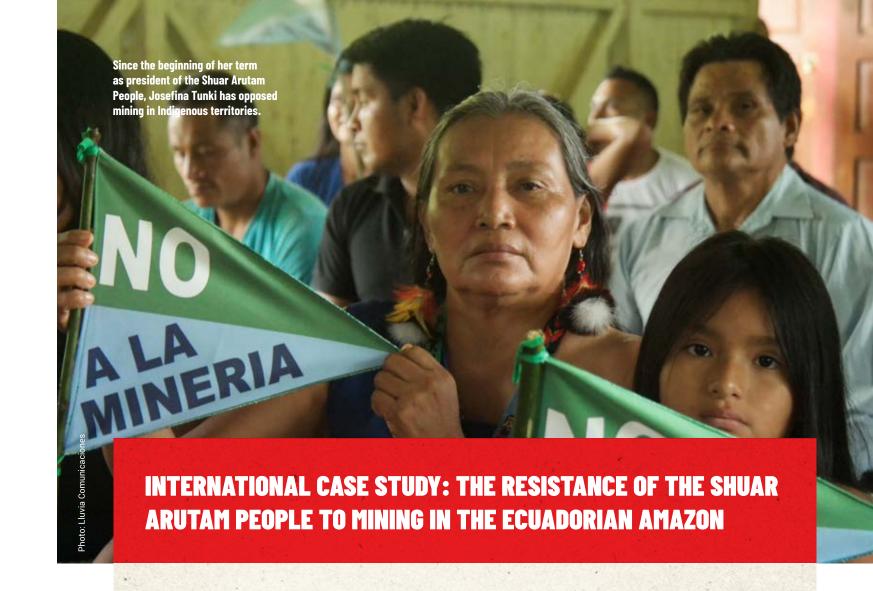
One of the main arguments behind opening Indigenous lands to mining is that the activity would bring economic benefits to Indigenous peoples themselves. In addition to being a premise with no underlying justification (see data on page 31 on the minimal contributions of mining to local development), it is a mistaken and racist assumption that Indigenous territories are not "productive," and that Indigenous communities do not already practice economic activities. Contrary to this myopic vision, Indigenous community-based

economies serve not only the health and well-being of native peoples, based on practices aligned with their own terms and conditions, but also preserve the vitality of Brazil's bioeconomy.

Led by the representative organizations of the Kayapó and Panera, and in coordination with partner organizations, Indigenous people have adopted a "Sustainable Management of the Kayapó-Panará Territories in southeastern Amazon^{"195} project on the Upper and Middle Xingu River. The project principally involves Indigenous territories that are threatened by large mining company interests. such as the Baú and Menkragnoti Indigenous lands. The project focuses on comprehensive territorial management that includes adopting activities that promote the sustainable use of natural resources, 196 which contribute to income generation through the implementation of agroforestry systems on Indigenous lands. Ultimately, the project strives to affirm the value of the forest and Indigenous communities by strengthening the forest's productive systems.

"Sustainable practices, such as collecting and processing fruits, plants and timber, are part of what our people do; however, we believe that greater government investment is needed. In this way, instead of opening up Indigenous lands to mineral exploration, the state should create legal and administrative instruments and public policies with adequate financial resources to support our sustainable local economic initiatives, generating income to supply our needs and contribute to our municipality, state and country."

Letter from the Baniwa Tunuí-Cachoeira Community¹⁹⁷ denouncing a visit by President Bolsonaro to Yanomami Indigenous Land on the Upper Negro River to support his anti-Indigenous agenda in favor of mining.



Throughout Latin America there are many examples of how mining activity impacts Indigenous people and territories, and of community resistance. In Ecuador, the Shuar Arutam people – whose territory includes important Amazonian rivers such as the Santiago, Zamora, and Coangos – decided years ago to exercise their constitutional right to resist mining projects. 198

In 2019, the Shuar Arutam launched the campaign "The Shuar Arutam people have already decided: no to mining on our land." The initiative demands that their life plans and right to self-determination be respected and affirmed: they will not accept additional processes of consultation around mining projects, as they have already collectively decided to bar this type of activity on their land. The campaign generated significant engagement from national and international supporters, who joined forces to pressure the Canadian company Solaris to stay out of Shuar Arutam territory. The fight has been arduous and generated tensions in the territory, when the company ignored the express will of the Indigenous community and recently built project infrastructure on the disputed location. However, the Shuar Arutam stand firm in their decision to resist, and have appealed their case to national and international bodies, such as the Organization of American States, the ILO, 202 and the Canadian government, 203 demanding it denounce these violations and respect the Shuar Arutam's decision to oppose mining. Despite this staunch opposition, the Ecuadorian government still promotes various large-scale mining projects on Shuar Arutam land, which now cover 50% of their territory.



FOR MINING COMPANIES, FINANCIERS, THE BRAZILIAN GOVERNMENT, AND THE INTERNATIONAL COMMUNITY

In our third consecutive year of collaboration on the Complicity in Destruction series between APIB and Amazon Watch, we highlight recent impacts of industrial mining incursions onto Indigenous territories and other protected areas in the Amazon. This report shows that, despite the mining sector's adoption of formal commitments toward socio-environmental responsibility, its operational model continues to be unsustainable and incompatible with the protection of critical ecosystems in the Amazon. The largest mining corporations, their financiers, the governments that regulate mining activities, and every actor along the chain of production must immediately change their behavior in order to improve this scenario. The series of recommendations below outline paths towards this much-needed change.



RECOMMENDATIONS FOR MINING COMPANIES

- and against all legislative initiatives that are designed to permit mining activity on Indigenous lands. As affirmed here, the proposed law violates the Brazilian Constitution and ILO Convention 169, as well as the socio-environmental policies of world's leading mining companies. It is of extreme importance that leading voices from the sector use their financial and political clout to denounce this grave threat.
- 2. Publicly commit to not mine on Brazil's Indigenous lands, while withdrawing all mining applications registered on the National Mining Agency for research and exploration on and adjacent to Indigenous lands including those submitted by subsidiaries in alignment with international commitments to protect human rights and biodiversity.
- 3. Respect the self-determination of Indigenous peoples, as recognized under international law, which should include carrying out a robust Free, Prior and Informed Consultation and Consent process when developing a project that threatens direct or indirect impacts on Indigenous territories.
- 4. Adopt ambitious and transparent targets in line with the Paris Agreement, which include respect for areas of high biodiversity and the control of carbon emissions, primarily scope 3 emissions.²⁰⁴



FOR FINANCIAL INSTITUTIONS

- Take a public position against Bill 191/2020 and all legislation that weakens protections for forest and Indigenous peoples, while encouraging counterparts and companies that rely on your investments to do the same.
- 2. Commit to zero deforestation policies and policies guaranteeing respect for Indigenous and human rights, with verifiable targets and progress reports made publicly available.
- 3. Create or strengthen internal control and monitoring mechanisms to ensure that no investments occur in areas involving environmental destruction, human rights violations, and land conflicts in Indigenous territories.
- 4. Require that any company receiving financing develop binding policies that safeguard Indigenous rights, including carrying out Free, Prior and Informed Consultation and Consent processes; and require that these companies refrain from mining on Indigenous lands in Brazil as criteria for receiving financing or investments.
- 5. Conduct periodic due diligence of companies receiving financing based on the highest standards of human and socio-environmental rights, regardless of the level of the financial institution's direct or indirect relationship with these companies.
- **6.** Exclude finance for companies that present systematic violations of social and environmental rights and human rights or that refuse to implement comprehensive policies for zero deforestation, for protecting rivers and for respecting Indigenous rights.



FOR THE BRAZILIAN GOVERNMENT

- Recognize and reaffirm Indigenous peoples' constitutional right to their territories, and reinitiate deferred procedures for Indigenous land demarcation.
- **2.** Establish and maintain Indigenous lands as areas free of mining and other extractive industrial and infrastructure projects.
- Strengthen environmental licensing systems for extractive projects intended to operate adjacent to Indigenous and traditional communities, by centering the right to Free, Prior and Informed Consultation and Consent in all decisions around these projects, in order to prevent indirect impacts to Indigenous communities.
- 4. Reinforce the monitoring and enforcement capacity of agencies responsible for supervising the mining industry, such as the National Mining Agency, and institute public policies creating channels for public participation and control over the industry, allowing for participatory monitoring of both regulatory and operational elements of the sector.
- Ensure that financial returns derived from mining activities benefit states (through progressive tax policies) as well as local communities in regions affected by mining, while also diversifying economic opportunities in these regions.



FOR THE INTERNATIONAL COMMUNITY

- Recognize and proactively support the fundamental role of Indigenous territories in regulating the global climate, conserving forests and maintaining carbon stocks and biodiversity.
- Recognize the social and environmental impacts and the violations of human rights associated with mining, especially in territories of the Global South, and create policies to ensure that minerals imported from these countries are not contributing to the destruction of vital ecosystems such as the Amazon or to violations of the rights of Indigenous and traditional communities.
- In case of recurring breaches and violations, stop the importation of products from mining companies involved in irregularities, act to prevent these companies from receiving any further financing by public banks, and end subsidies and other incentives for financing from private financiers.
- 4. Commit to policies that foster alternatives to the current industrial mining model, with clear incentives for the adoption of best practices, reuse of resources, energy efficiency, and the creation and protection of areas free of this activity.
- Develop and implement regulation on extractive industries requiring them to report on existing or potential land conflicts with Indigenous peoples and on the production and financing of deforestation-driving commodities.



APPENDIX I

MOST FREQUENT INVESTORS

Top 40. Investments in US\$ millions (January 2016 - October 2021)

Financial Institution	Country		Sul	ototal		Total				Total by co	mpany Combined	I total of equities, bo	nds and credit
		Loans	Underwriting	Equity	Bonds		Anglo American	AngloGold Ashanti	Belo Sun	Glencore	Minsur	Rio Tinto	Vale
PREVI	BRA			7,441		7,441	0	0	0	0	0	0	7,441
Capital Group	USA			7,050	6	7,056	8	3	0	2	0	451	6,592
BlackRock	USA			6,129	43	6,172	761	90	0	101	0	1,029	4,192
Bradesco	BRA	14	159	4,388		4,560	0	0	0	85	14	0	4,462
Vanguard	USA			1,549	37	1,586	276	31	0	45	0	219	1,016
Caixa Econômica Federal	BRA			786		786	0	0	0	0	0	0	786
Crédit Agricole	FRA	563	135	55	24	777	290	8	0	58	0	76	345
Commerzbank	DEU	589	79	15		683	629	0	0	41	0	13	0
GQG Partners	USA			628		628	0	0	0	11	0	0	616
Citigroup	USA	522	129	0		651	156	34	0	61	29	63	308
Itaú Unibanco	BRA	8		601		609	0	0	0	0	8	0	601
Public Investment Corporation	ZAF			597		597	483	114	0	0	0	0	0
Bank of America	USA	289	381			670	51	45	0	57	115	63	339
SMBC Group	JPN	467	58	6		530	127	0	0	47	0	54	302
JPMorgan Chase	USA	275	149	101	8	532	158	34	0	64	0	69	207
Toronto-Dominion Bank	CAN	236	66	226	0	528	329	0	21	43	0	29	106
HSBC	GBR	333	113	67	2	515	186	1	0	57	0	64	208
Santander	ESP	159	233	191	0	583	162	0	0	138	73	43	166
Royal Bank of Canada	CAN	378	113	20	1	512	167	35	14	49	0	57	191
BNP Paribas	FRA	358	119	30	2	509	287	34	0	61	1	53	73
Mizuho Financial	JPN	350	113	13	0	476	183	0	0	53	0	55	185
Scotiabank	CAN	359	26	96	0	481	107	34	3	47	54	45	190
Banco do Brasil	BRA	101	85	285	0	471	0	0	0	85	0	0	386
Standard Chartered	GBR	322	119			441	167	34	0	45	0	28	167
Fidelity Investments	USA			394	6	400	91	3	0	5	0	11	289
BMO Financial Group	CAN	347	34	20	1	403	90	42	3	44	0	33	191
Barclays	GBR	234	144	1		379	191	33	0	54	0	0	101
Dimensional Fund Advisors	USA			349	2	351	32	0	0	8	0	4	307
Deutsche Bank	DEU	197	34	122	10	363	46	37	0	68	0	73	139
Credit Suisse	CHE	131	76	114	7	327	111	1	0	55	0	73	88
JBIC	JPN	297				297	0	0	0		0	0	297
Coronation Fund Managers	ZAF			277	1	278	229	45	0	4	0	0	0
Mitsubishi UFJ Financial	JPN	225	40	13		278	36	1	0	61	0	31	149
Opportunity Asset Management	BRA			263		263	0	0	0	0	0	0	263
UniCredit	ITA	220	35	1		256	102	0	0	46	0	26	82
UBS	CHE	34	42	163	11	249	73	2	0	56	0	18	99
Tarl Investment	ZAF			244		244	244	0	0	0	0	0	0
Franklin Resources	USA			220	24	244	23	1	2	4	0	13	201
Goldman Sachs	USA	84	110	25	18	237	197	17	0	3	0	4	17
State Street	USA			222	7	229	124	3	0	4	0	83	15

EXPLANATORY SUMMARY: TYPES OF FINANCING PRESENTED IN THIS REPORT

Loan

Occurs when a company takes money from a bank and gradually pays back that sum, over time, with interest. Corporations can use loans to finance specific projects or their general operations. Loans can be short term (paid off in up to a year) or long term (with terms of at least one year, in general 3 to 10 years). While short-term loans are generally offered by a single bank, long-term loans are generally offered by a credit consortium, that is, a group of banks composed of one or more partner banks.

Underwriting

Shares represent a portion of the equity capital of a company. By purchasing a share, the investor becomes a type of partner. However, to issue shares and sell them, a company needs a bank to "underwrite these shares," which means to buy them and resell them to other investors. First the bank purchases the shares, then finds investors who want to acquire them, making them shareholders. Underwriting is an essential service and, for this reason, banks play an important role in the issuance of shares. A similar process occurs with bonds, since a company needs the assistance of one or more investment banks to underwrite a certain amount of bonds. If the investment bank is unable to sell all the bonds that it underwrites, it will end up owning these bonds.

(Management of) Shareholder Interest

Financial institutions such as banks, insurance companies, pension funds and asset managers can control shareholder interest by deciding to purchase, maintain or sell shares — which are percentages of ownership of a particular company — on behalf of their clients. In this way, financial institutions become co-owners of all the companies in which they invest. As co-owners, they can directly influence the companies in which they invest. The amount of influence depends in large part on the size of its shareholder interest.

(Management of) Investments in Bonds

Financial institutions authorized to purchase shares of public companies can also purchase bonds. The issuance of bonds consists essentially of dividing a large loan into small parts and selling each one of them separately. The main difference between owning a bond and owning shares is that an owner of a company's bond is not a co-owner. They are instead a creditor of the company, that is, the company must pay back the value of the bond to the creditor, with interest. Bonds can be resold, a similar process to shares, but unlike a traditional loan.

WHAT BRAZILIAN LEGISLATION AND INTERNATIONAL LAW STATES ABOUT MINING ON INDIGENOUS LANDS

There are many laws, agreements and norms that address Indigenous rights, as well as regulations on mining activity in Brazil and internationally.

Article 231 of the Brazilian Constitution²⁰⁵ clearly states that the rights of Indigenous people to their land are original and inviolable, and that they possess the "exclusive usufruct of the natural resources" in it. Subparagraph 3 of this article allows for mineral exploration on Indigenous lands with authorization from Congress, after having consulted with affected Indigenous peoples, and ensuring their right to participate in economic benefits of this activity. The Constitution therefore imposes highly restrictive standards upon mining activities when potentially conducted on Indigenous land, given its inherently high-impact nature. The Brazilian Congress has yet to legislate this subparagraph, meaning there is no legal basis permitting this activity on Indigenous land.

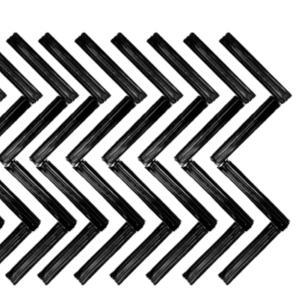
Brazil's 1967 Mining Code of Brazil does not explicitly reference Indigenous lands, however it allows for mining activity to be barred in cases it fails to ensure the preservation of assets and interests of greater value to society due to its impact. ²⁰⁶ According to article 42 of the Mining Code, authorization for exploration will be "refused if the activity is considered prejudicial to the public good or compromises interests that exceed the utility of the industrial exploration, as judged by the government." Despite having been modified over time, the Code remains the principal legislation for Brazil's mining sector, but is now considered obsolete by both the sector and civil society organizations.

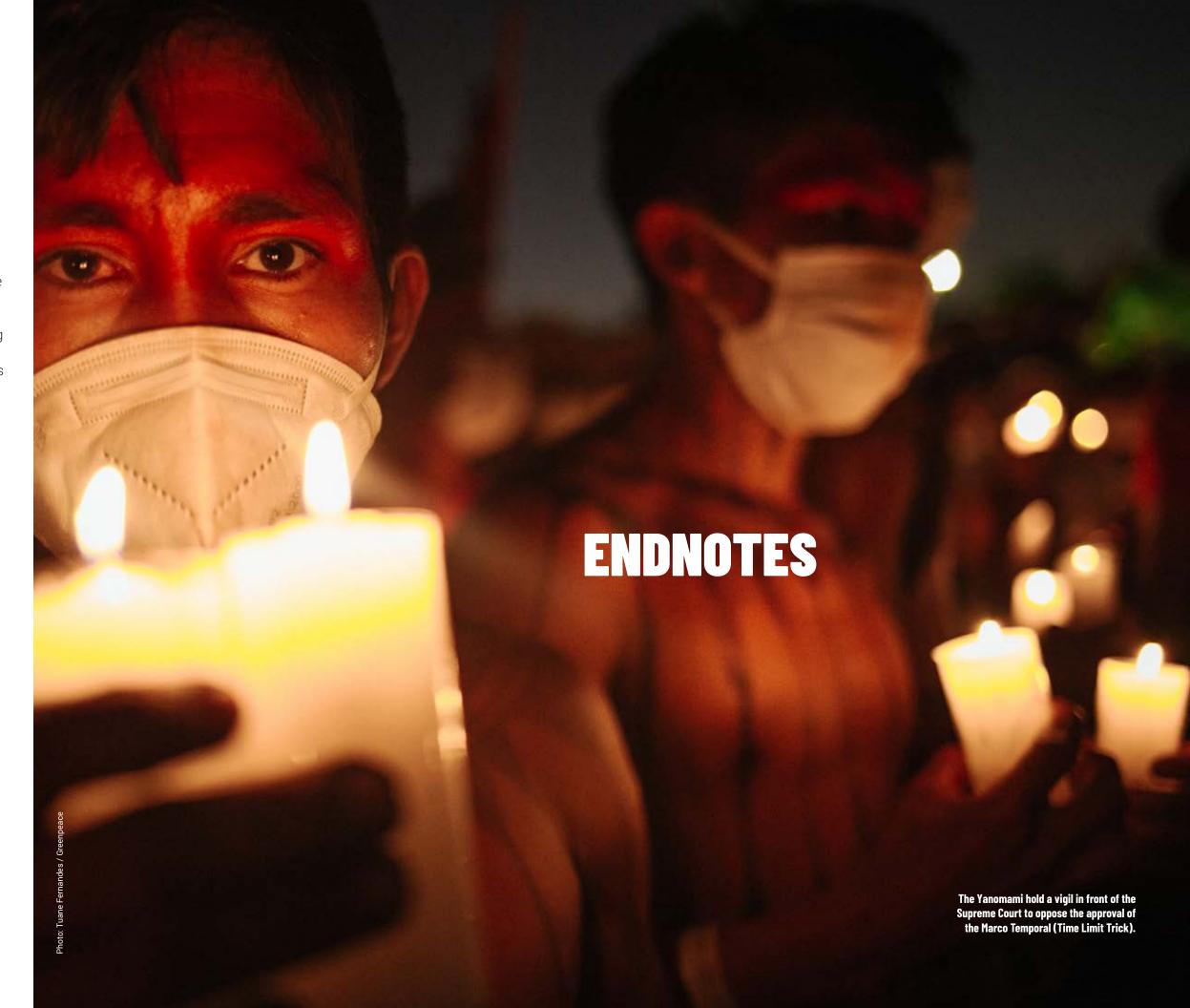
Interministerial Ordinance 060/2015 also regulates mining activities on Indigenous lands, establishing that FUNAI must oversee environmental licensing procedures for activities and projects that directly or indirectly affect Indigenous lands or people.²⁹⁷ Annex I of the ordinance establishes the distance that a project must remain from the border of an Indigenous land. In the case of mining, this distance is ten kilometers in the Amazon and eight kilometers in other regions. This distance naturally does not consider impacts that spread over larger areas, such as the pollution of rivers and other waterways.

Another important mechanism in this discussion is International Labor Organization Convention 169,²⁰⁸ which the Brazilian government ratified in 2003. The Convention is based on respect for cultures and the ways of life of Indigenous peoples, recognizing their rights to the land and natural resources, and to decide their own development priorities. The right to consultation and participation of Indigenous peoples in decisions that affect their lands and lives²⁰⁹ is upheld in Article 6. It imposes mandatory consultations whenever legislative or administrative measures directly affect Indigenous peoples. In addition, the convention emphasizes the need for inclusive consultation before exploiting resources and before any possible redistribution or transfer of lands. Consultations must be conducted "in good faith...with the objective of...achieving consent regarding the proposed measures." In July 2021, representatives of the ruralista caucus presented Brazil's Congress with the Legislative Decree Bill (PDL no. 177/2021), which would allow the president to renounce ILO Convention 169.210

This would allow the Bolsonaro administration to exit Brazil from the only international treaty that addresses the rights of Indigenous and traditional peoples, further exposing its interests, and those of its allies, in denying compliance with these fundamental rights.

Finally, the International Council on Mining and Metals (ICMM) is the principal global representative institution of the mining sector, which convenes the largest mining companies in the world and develops guidelines for all of its members regarding mining projects that involve Indigenous peoples. According to the Declaration on Indigenous Peoples and Mining by the ICMM, mining companies must respect Indigenous rights, especially with regard to their territorial rights, and commit to conducting Free, Prior and Informed Consent, with a view to obtaining consent from affected Indigenous peoples, whenever relevant.





ENDNOTES

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