Mining in the Amazon Region

Mining is among the causes of the most serious socio-environmental impacts in the Amazon, with 45,065 mining concessions in operation or awaiting approval, of which 21,536 overlap protected areas and indigenous lands.

The Grande Carajás Program, launched in the 1970s when Vale was still a state-owned company, is an emblematic case of the alliance between the state and big mining capital; this mega-enterprise involves the Carajás Iron Project (Parauapebas and Canaã, in the heart of the Para Amazon, host the largest open-pit iron mine in the world), the Trombetas Project (MRN), Albrás-Alunorte (Barcarena), Alumar (São Luís) and the Tucuruí Hydroelectric Power Plant. Mineral exploration accounts for almost 75% of the state of Pará's exports; the influence of the economic power of mining on the political decisions of the state and the country is evident.

This is what we call an "enclave economy", a dominant model imposed on a huge region, reducing diversification and investment in self-sustaining local economies. This model implies a strong concentration of power (monopoly) and allows the extraction of minerals at low costs and high profits. In the Brazilian Amazon, the biggest beneficiaries are Vale, Norsky Hidro and Alcoa. Another serious threat is the implementation of the Canadian company Belo Sun's gold mine in the Volta Grande do Xingu: after the impact of the Belo Monte hydroelectric plant, this project would have catastrophic consequences for the Xingu river basin. Recently, the company sued leaders and activists from socio-environmental movements, in a clear attempt to intimidate and weaken resistance.

The extraction and transportation of iron, bauxite, copper, nickel, tin, zinc and gold from the Amazon requires an infrastructure with far-reaching environmental impacts, linking the systems of mines, railroads, highways, waterways and ports for export.

The Amazon is becoming the most consistent expansion frontier for corporate and illegal mining. Between 2005 and 2015, mining caused the deforestation of 1.2 million hectares in the Brazilian Amazon, i.e. around 9% of the total loss of Amazon rainforest during the period. Just as we have already mentioned the "systemic" impacts of mining, because of all the infrastructure for disposal and export, we must also consider the so-called "spillover effect" of mineral and agrarian production, with implications and changes in environmental standards and procedures, dismantling of regulatory institutions, population displacement and accelerated demographic concentration, loss of economic, social and cultural subsistence capacity of traditional populations and varying degrees of environmental contamination and degradation.

Another huge challenge for the Amazon, which is becoming increasingly difficult to control and suppress, is illegal gold mining. It is estimated that there are 453 illegal mining sites in the Brazilian Amazon, and more than 2,500 throughout the Amazon basin.

The impacts of mining on river basins and territories are so strong that even if all activities were stopped now, it would take at least 30-40 years for degraded rivers and lands to recover.

Associated with mining are various other illegal activities in the forest, such as logging, land invasions, cattle ranching on the edges, etc.

The expansion of gold mining is directly linked to the strengthening of drug trafficking in the Amazon, particularly due to the ease with which money can be laundered. In an Ecuador

increasingly marked by violence, for example, organized crime, linked to the big international drug cartels, controls 20 illegal gold mines, extorts 30 mines from private companies, charges between 300 and 900 dollars from each person seeking work in a garimpo, controls 40 groups of illegal miners and profits around 3.6 million dollars a month. There is evidence of a connection between the drug mafias and state power, particularly the judiciary, according to the investigations into the Metástasis case, which reveals the cancer of public corruption through drug trafficking.

Another huge challenge is the expansion of mining due to the growth of agribusiness and the so-called "mining-energy transitions" in the face of the climate crisis. In the first case, we have a consistent increase in the extraction of minerals for the production of fertilizers, especially phosphate (with reserves expected to run out in Brazil by 2050) and potash, whose deposits in the Amazon Basin "are strategically positioned and well served by waterways and can deliver cheaper products to the Brazilian Midwest (Cerrado)" The company Potássio Brasil, controlled by a Canadian bank that also owns the Belo Sun mining company, has been harassing the indigenous community to sell the land and has managed to convince many of them.

In the second case, huge investments are being made in the search for so-called "critical minerals", essential for "clean energy" generation equipment. Brazil is home to 94% of the world's niobium reserves, 22% of graphite and 16% of nickel, as well as 17% of rare earths, the third largest deposit on the planet. Copper and lithium are two other essential elements for the transition. The Legal Amazon concentrates approximately 30% of the known occurrences of strategic minerals, such as tin, potassium and aluminum - 4.4% of them in indigenous lands and 14.9% in conservation units.

The "cleanliness" of energy consists in the lack of carbon emissions for its production; however, electric vehicles and wind turbines require six times more minerals than traditional models. The share of clean energy technologies in total demand will increase significantly over the next two decades, exceeding 40% for copper and rare earth elements, 60-70% for nickel and cobalt, and almost 90% for lithium. The extraction of the minerals needed for this transition model is causing incalculable environmental and social impacts in various territories.

Finally, alongside these innovations in mining due to the energy transition, there are indefensible options for the continued extraction of fossil fuels, in the country and particularly in the Legal Amazon, such as the oil projects on the Equatorial Margin, in the ocean just in front of the mouth of the Amazon River, or the hydraulic fracturing projects for gas extraction (fracking) in Maranhão. Brazil's energy plan seeks to increase oil and gas by 63% and 124% respectively between 2022 and 2032; the current administration has said it wants to turn Brazil into the world's fourth largest oil producer.

All of this obviously amplifies conflicts, violence in the territories and also persecution, criminalization and death threats against leaders and communities who try to defend their ways of life and priorities in the face of big projects or the invasion of mining. In a recent study by the Churches and Mining Network, which is yet to be published, 121 conflicts caused by mining were systematized in the CNBB's North2 region (PA), 86 in North 1 (part of AM and RR), 20 in the Northwest (AC, RO and part of AM), 37 in West 2 (MT) and 25 in Northeast 5 (MA).

Special mention should be made of the threats posed by mining to indigenous lands. Law 14.701/23, through which Congress confronted the executive and judiciary powers and approved the Temporal Framework, is also making indigenous peoples' exclusive usufruct of the goods in their territories more flexible and waives the right to consultation in the case of infrastructure projects. At the same time, there are several bills seeking to legalize mining on indigenous lands. Nine major mining companies (Vale, Anglo American, Belo Sun, Potássio do Brasil, Mineração Taboca/Mamoré Mineração e Metalúrgica, Glencore, AngloGold Ashanti and Rio Tinto) are on the list of more than 500 companies with applications registered until November 2021 to mine within indigenous territories in the Amazon. Mining requests in the Amazon overlap and encroach on about 15% of the total indigenous lands in the area. The lands of 21 isolated groups account for 97% of all mining requests.

Resistance to mining projects in the Amazon continues to be intense, with the protagonism of indigenous peoples, quilombola communities and other traditional communities, popular organizations and movements such as the Justice on the Rails Network in Maranhão or the Movement for Popular Sovereignty in Mining (MAM). In July 2023, the peoples of Panamazonia met at the Assembly of the Peoples of the Earth for the Amazon, on the occasion of the Summit of Presidents of the Amazon, in Belém (PA).