

THE AMAZON AND THE GLOBAL ENERGY EXPANSION

The Brazilian Amazon holds vast reserves of transition minerals, considered essential for electric vehicle batteries, renewable energy, high-tech equipment, the military industry, and other uses. Despite its central role in the energy transition – which can now be more accurately described as an energy expansion – the extraction of these minerals threatens ecosystems, indigenous communities, quilombola, riverine, and agrarian reform settlement communities, and puts global climate commitments at risk.

MINING IN THE AMAZON BY THE NUMBERS

- The Brazilian Amazon is the biome most threatened by the advance of mining and holds large deposits of iron, aluminum, manganese, tin, nickel, copper and potassium, among others.

22% of the entire biome area is of interest to the mining sector, approximately **93 million hectares** (equivalent to the size of Germany and France combined)

5.000 mining applications registered with the National Mining Agency.

52% of the country's rural settlements overlapping with transition mineral projects. More than **700 settlements** are in the Amazon.

46% of all recorded conflict occurrences. The Amazon is the region with the most violations related to transition minerals



FROM THE AMAZON TO THE WORLD: THE GLOBAL MINING CHAIN

- Companies Involved and Countries of Controlling Shareholders**
Taboca/China Nonferrous Metal Mining Group (China)
- Local Impacts**
Deforestation, river contamination
- Main Destinations**
China, United States, Netherlands and Spain

- Companies Involved and Countries of Controlling Shareholders**
Vale, vehicle manufacturers
- Local Impacts**
River contamination, impacts on the Xikrin and Kayapó indigenous peoples
- Main Destinations**
China, Japan, Germany, Finland, Italy and United States, among others.

- Companies Involved and Countries of Controlling Shareholders**
Vale, Nexa Resources (Luxembourg)
- Local Impacts**
Pressure on indigenous lands, biodiversity loss, water pollution
- Main Destinations**
China, Germany, Japan

- Companies Involved and Countries of Controlling Shareholders**
Glencore (Switzerland), Norsk Hydro (Norway), Alcoa (United States)
- Local Impacts**
River contamination, impacts on quilombola and riverine communities
- Main Destinations**
USA, European Union

- Companies Involved and Countries of Controlling Shareholders**
Vale, Chinese steelmakers, Hyundai (South Korea), various European and Asian companies
- Local Impacts**
Deforestation, river pollution, impact on the Xikrin do Cateté and Gavião indigenous peoples
- Main Destinations**
China, South Korea, Europe, Malaysia, Japan, Netherlands



MINERAL/GLOBAL USE

- Iron** - Steel production for infrastructure and transportation
- Aluminum / Bauxite** - Construction, electronics, packaging
- Nickel** - Electric vehicle batteries, stainless steel
- Copper** - Electrical cables, solar panels, electronics
- Tin** - Electronics industry, metal alloys, chemical industry and other uses

- Legal Amazon
- Capitals
- Mines



MINING AND DEFORESTATION

If industrial mining on indigenous lands is approved in Brazil – currently under debate in the Congress after years of political maneuvering – it could result in the loss of

160,000 km²

of Amazon forest, an area larger than the surface of countries such as **England.**



Furthermore, mining on indigenous lands could also cause losses of

US\$ 5 billion

per year in ecosystem services, considering only food production such as Brazil nuts, sustainable timber and rubber extraction, greenhouse gas mitigation, and climate regulation.

Mining is currently the **fourth largest driver of deforestation**, affecting up to

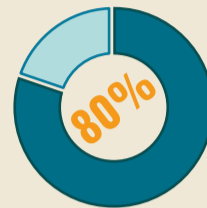
1/3

of the world's forest ecosystems, when indirect impacts are considered (mining-related infrastructure, settlements, agriculture through settlements, water and soil contamination, and illegal logging).

More than **80%** of direct mining-related deforestation occurs in just

10 countries,

including Brazil, with tropical forests being the most affected.



From **2001 to 2020**, the world lost nearly

1,4 million hectares

of trees **due to mining and related activities**, an area roughly

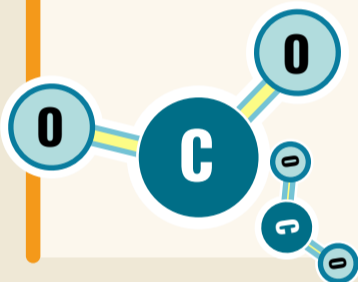
14 times

the size of Belém, host city of COP 30.

The felling of these trees also released

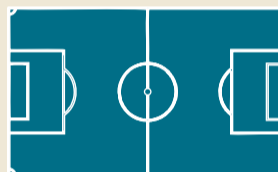
36 million

tonnes of carbon dioxide equivalent (CO₂e) per year into the atmosphere, an amount comparable to Finland's fossil fuel emissions in 2022.



260,000 hectares

of forest were lost due to mining activities on lands used by indigenous and local communities between **2001 and 2020.**



1 hectare = 1 football field

The European Union's goal of becoming carbon neutral by 2050, which is driving demand for electric vehicles, could lead to deforestation of

118,000 hectares

in countries supplying critical minerals, two times the size of Madrid. Brazil would be one of the most affected countries, accounting for nearly

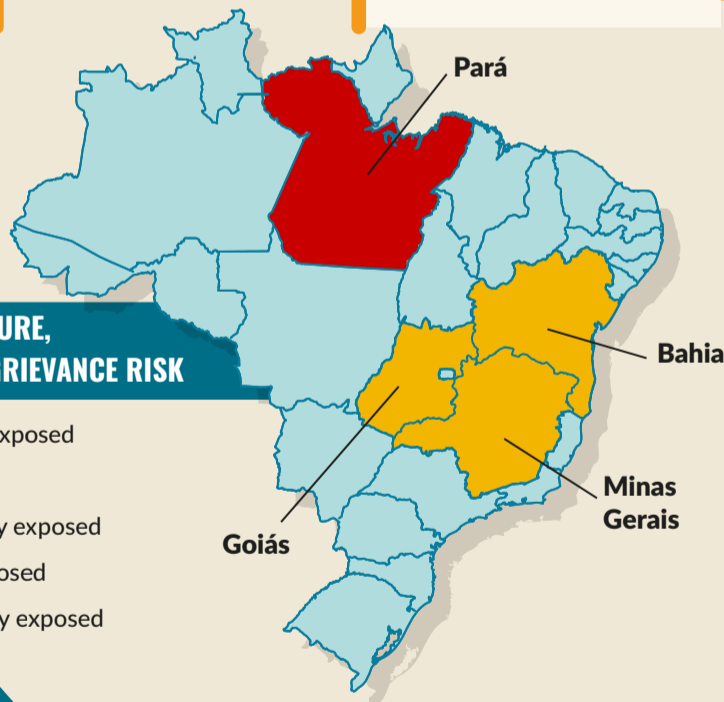
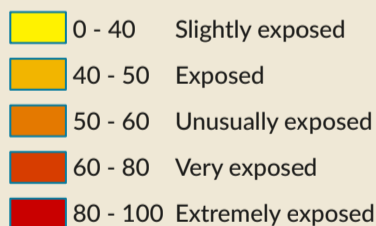
12%

of total deforestation.

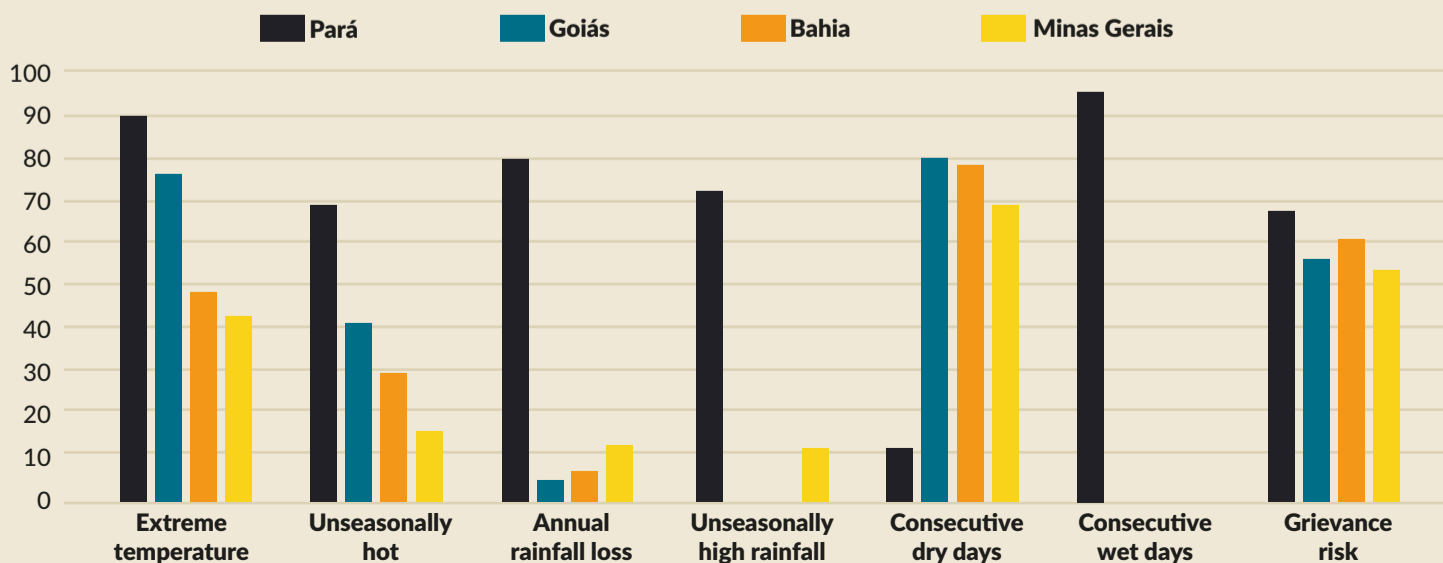
MINING AND CLIMATE RISKS

Pará is the state most exposed to climate risks and social conflicts among Brazil's four main mining states, according to multiple indicators analyzed by the Mining Observatory and the Mission Climate Project (UK) in an exclusive 2025 report. This represents a high degree of climate vulnerability, intense risk of worsening social conflicts, and the possibility of disruptions to mining activities themselves.

COMBINED TEMPERATURE, PRECIPITATION AND GRIEVANCE RISK



SELECT CLIMATE AND SOCIAL RISK FACTORS





Mineral denialism does not deny the climate crisis — it reinforces it to justify the expansion of mining as the only possible solution. Unlike climate denialism, which rejects scientific evidence on climate change, mineral denialism appropriates this science to position itself as indispensable in addressing the crisis.

The rhetoric of mining companies, industry lobbyists, and politicians across the ideological spectrum reinforces the supposed "essentiality" of mining for the energy transition, concealing its socio-environmental impacts and perpetuating a destructive extractivist model. Promises of development, job creation, and tax revenues continue

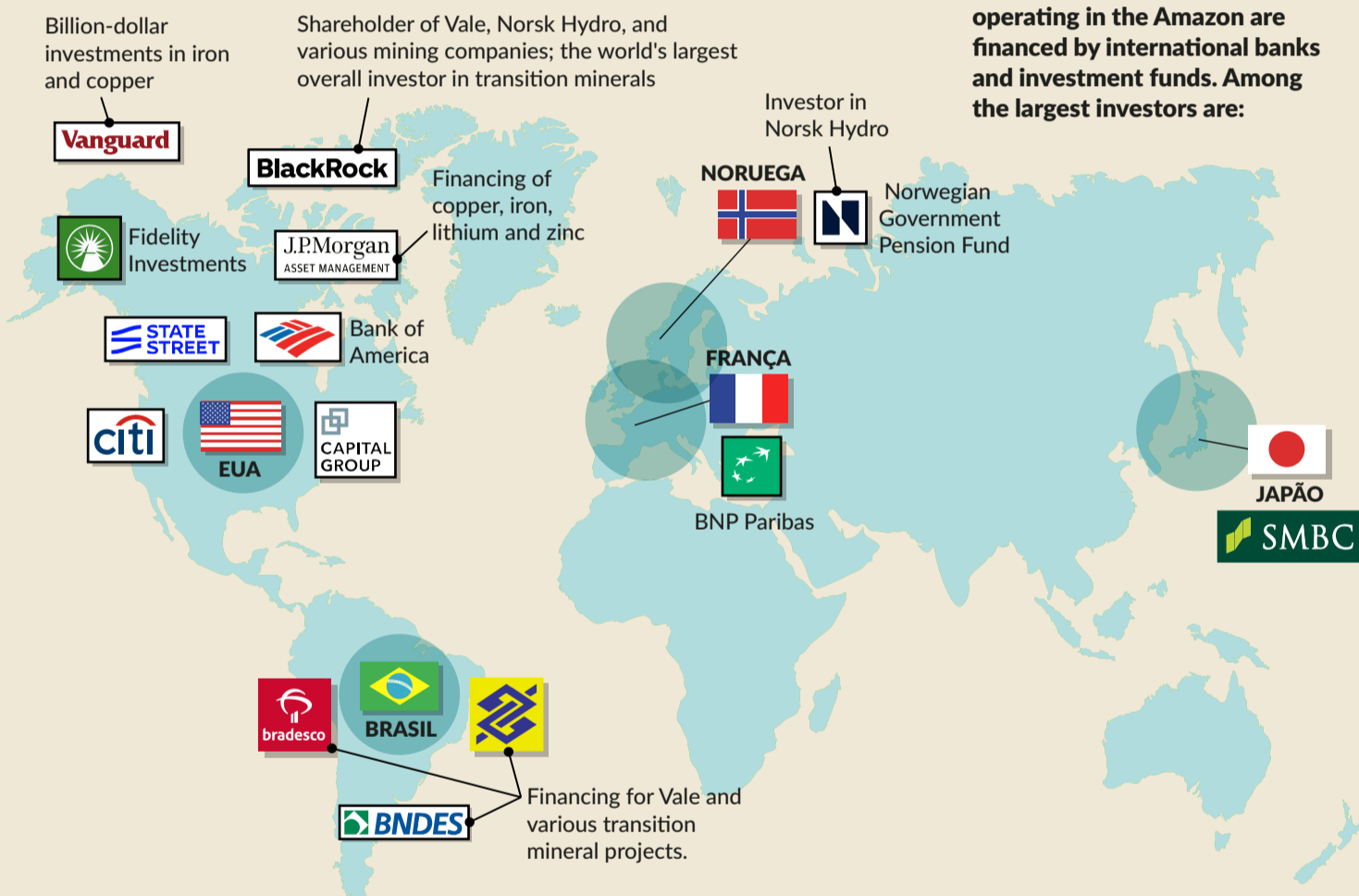
to be repeated, despite evidence that mining has historically failed to deliver these benefits in a fair and long-lasting way.

Without this sustainable veneer, mining would have to admit its finite nature and the fact that it compromises the future of entire generations. Instead of confronting its contradictions, it reinvents itself as humanity's savior, promoting more mining as the only way out of the climate crisis — even though it is this very activity that is responsible for much of the environmental destruction that brought us here.

After all, if mining were recognized for the problems it creates, how could it continue to be sold as a solution?

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WHO FINANCES MINING IN THE AMAZON?



The main mining companies operating in the Amazon are financed by international banks and investment funds. Among the largest investors are:

WE WILL NOT OVERCOME THE CLIMATE CRISIS BY REPLICATING THE SAME MODEL THAT LED TO DISASTER

Replacing fossil fuels with intensive mineral extraction reinforces sacrifice zones in the Global South, deepening economic dependency, inequality, and socio-environmental damage. We need not just safeguards, but a new mining model and a new development model that transcends the industry's greenwashing narratives, the insufficient sustainability paradigm, and the questionable targets on the table. Follow Mining Observatory (Observatório da Mineração) to learn about our proposals, suggested pathways, alternatives, research, and investigations.

Check the list of sources we used for this factsheet at this link: <http://bit.ly/4oML1ZE>

Download using the QR code.

