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Amazonia threatened by Brazilian President Bolsonaro's mining agenda

Rodrigo Machado Vilani¹, Lucas Ferrante², Philip M. Fearnside³¹Universidade Federal do Estado do Rio de Janeiro, 22290-240, Rio de Janeiro, RJ, Brazil, rodrigo.vilani@unirio.br^{2,3}National Institute for Research in Amazonia (INPA), 69067-375 Manaus, AM, Brazil, lucasferrante@hotmail.com, pmfearn@inpa.gov.br

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Abstract

Brazilian President Jair Bolsonaro has induced a cycle of deforestation and violence in the Amazon, where dismantling environmental agencies and gutting protection policies have become a central strategy in removing barriers to predatory exploitation of natural resources. Mining is a key part of this agenda. Brazil and the international community must struggle to reverse the ongoing destruction of the Amazon.

Keywords Amazon, Brazil, minerals, environmental impact assessment, environmental policy, indigenous peoples

Mining is an activity that is notorious for its environmental and social impacts, and that has proved especially damaging in Amazonia (Sonter et al. 2017; Fearnside 2019a). The effect on indigenous peoples has been particularly devastating (Branford 2020; Villén-Pérez et al. 2022). Removing barriers to large-scale mining in Amazonia, including extraction from indigenous lands (e.g., Bills 191/2000, 2633/2020, 3729/2004 and 490/2007), has been a key part of the agenda of the 2019-2022 *Jair Bolsonaro* presidential administration.

In October 2018, *Jair Bolsonaro* was elected and presented a government plan that was structurally harmful to the environmental legislation in Brazil (Facchin

2018). After taking office in January 2019, *Bolsonaro* implemented a series of measures to scrap the environmental legislation and the rights of indigenous peoples (Ferrante and Fearnside 2019). These actions increased deforestation throughout Brazil and led to an explosion of fires in the Amazon and Pantanal, the smoke from which even darkened the skies of the city São Paulo (ClimaInfo 2020). *Bolsonaro* tried to hide the episode and used the Brazilian army as a smokescreen to cover up the increase in deforestation and fires in the Amazon (Ferrante and Fearnside 2020; Deutsch 2021). President *Bolsonaro* has promoted the dismantling of environmental agencies and policies by: (i) militarization of the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA),

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(ii) drastic budget cuts for environmental protection, (iii) reduction of operations against illegal deforestation, (iv) impeding investigations of environmental infractions, and (v) threats to indigenous lands and protected areas for biodiversity (Ferrante and Fearnside 2019; Barbosa et al. 2021; Santos et al. 2021).

President *Bolsonaro's* administration has been marked by a sharp increase in Amazon deforestation (Brazil, INPE 2022) and in attacks on indigenous peoples by loggers, miners and "ruralists" (large landholders and their representatives), especially during the pandemic (Ferrante and Fearnside 2020). The dismantling of the National Indian Foundation (FUNAI) was a step in this process, since, together with IBAMA, the agency acted to inhibit environmental infractions in Amazonian indigenous lands (Rorato et al. 2021). President *Bolsonaro* also denied the validity of the deforestation estimates produced by the National Institute for Space Research (INPE), had its director dismissed, and inhibited its work in various ways (e.g., Fearnside 2019b).

Another threat to the sustainability of the Amazon is the land tenure system because it results in land conflicts, unequal ownership patterns, real estate speculation and illegal appropriation of government land (land grabbing or *grilagem*). Particularly vulnerable to land grabbing is a vast area of undesignated public lands, popularly known as *terras devolutas* or "vacant lands" (Azevedo-Ramos et al. 2020; Carrero et al. 2022; Sparovek et al. 2019). The recategorization and reduction of protected areas is an additional threat (e.g., Koga et al. 2022). The dysfunctionality of environmental, indigenous and land policies is leading to destruction of the Amazon forest, which is home to both tremendous biodiversity and hundreds of indigenous ethnic groups and traditional communities such as rubber tappers, fishers and *quilombolas* (descendants of Africans who escaped slavery and founded their own settlements). Indigenous areas are especially vulnerable to the advances of agribusiness, which is implanting production chains with high potential to impact on both the environment and the collective health of these communities (Ferrante et al. 2021).

Amazonia and indigenous lands were not mentioned in either the plan that *Bolsonaro* proposed when running for president in 2018 (Bolsonaro 2018a) or in his post-election speech (Bolsonaro 2018b). The theme is addressed in his pronouncements at the United Nations, but from a mercantilist logic, extolling the

economic exploitation and abundance of Amazonian mineral wealth and the desire of indigenous peoples to exploit their lands (Agência Brasil 2019; Brazil, PR 2020; United Nations 2021). He equated mineral extraction with progress and dismissed the increase in deforestation and fires in the Amazon as natural. President *Bolsonaro* has violated the Federal Constitution by repeatedly stating that he will not demarcate any indigenous lands.

In February 2022, Decree 10,966 created "artisanal mining" as a category to be "stimulated" in the Amazon region (Brazil, PR 2022). The decree also creates the Interministerial Commission for the Development of Artisanal and Small-Scale Mining, which will have no representation of indigenous peoples, traditional communities or social movements. The decree legitimizes illegal mining in the Amazon and favors an important base of electoral support for the President (Fearnside 2022a).

Authoritarian norms are adopted with the support of "ruralists" (large landholders and their representatives) as well as mining and other interests (Wanderley et al. 2020). Setbacks in legislation are underway through different bills that promote a deep deterritorialization of the Amazon in favor of mining and agribusiness. The following bills being advanced by President *Bolsonaro's* supporters in the National Congress are mechanisms of deregulation of environmental policies: (i) Bill 191/2020 allows mining in Indigenous lands and in protected areas for biodiversity (Câmara dos Deputados 2020a; Ferrante and Fearnside 2022a), (ii) Bill 5518/2020 offers public forest concessions to private initiatives (Câmara dos Deputados 2020b), and (iii) Bill 2633/2020 rewards land grabbers by promoting the legalization of illegal land claims (Câmara dos Deputados 2020c; Ferrante and Fearnside 2021). Two old bills returned to the debate due to the current political scenario: (i) Bill 3729/2004 guts the country's environmental licensing system (Câmara dos Deputados 2021; Ruaro et al. 2021, 2022), and (ii) Bill 490/2007 makes it difficult to demarcate indigenous lands (Câmara dos Deputados 2007; ISA 2021). Mining is an activity that promotes severe environmental impacts and deterritorialization in the areas where it is installed. The sector is one of the main beneficiaries of these bills. Brazil's "ruralist" lobby and congressional voting block is trying to repeal the country's ratification of International Labor Organization Convention 169, which requires consultation for projects impacting indigenous peoples (Russau 2021). This

would remove a critical impediment to legalizing the wholesale invasion of indigenous areas for mining (in addition to hydroelectric dams, logging, ranching and soy plantations), such as the developments planned under PL191/2020.

According to data from the Brazilian Mining Institute (IBM 2022), in 2021 there was an increase of 7% in mineral production compared to 2020. Exports increased by 58.6% compared to 2020, the gross value of the exports totaling US\$ 58 billion in 2021. Iron ore was responsible for 73.7% of the total value the minerals produced and generated US\$ 44.6 billion in exports. The top three destinations for Brazilian iron ore are: China 68.0%, Malaysia 6.4%, and Japan 3.6%. The state of Pará, in the Brazilian Amazonia, has the largest mineral production in the country, which corresponded to 43% of the sector's total revenue in Brazil. This production is due to Carajás, the largest open-pit iron ore mine on the planet, which had an estimated production of 220 million tons in 2021 (Pinto 2021).

The place of Amazonia must be rethought in both Brazilian and international policies. The exploitation of Amazonia's land and minerals on an industrial scale for export has left the biome, and its neighboring biomes (such as the Cerrado), under threat. The region's biodiversity and the peoples who live there need to be taken into consideration as structuring elements for the sustainability of the biome and the ecosystem services it offers (Fearnside 2021).

Agendas must be aligned with international commitments on environmental and climate issues as well as with the protection of indigenous peoples. Priority measures include: (i) budget recovery for IBAMA and FUNAI, (ii) review and consolidation of a land-tenure system and resumption of the processes of demarcation of indigenous lands, and (iii) elaboration of a participatory post-extractivist agenda in which native peoples and traditional communities play a leading role.

Finally, the call for an international boycott of soy and beef (Ferrante and Fearnside 2022b) should be extended to include Brazil's Amazonian ore. A key question will be restrictions by the European Union (EU). A trade agreement between the EU and MERCOSUL (which includes Brazil, Argentina, Paraguay and Uruguay) has been held up since 2019 due to lack of confidence that environmental criteria will be met

(Spring 2022). On 13 September 2022 the European Parliament approved environmental restrictions on imports of 14 types of commodities, and, if ratified by the 27 member states, the restrictions would take effect in 2023 (Schröder 2022). Minerals are not included among the restricted commodities.

The 31 October 2022 election of *Luiz Inácio Lula da Silva* as Brazil's President greatly improves the outlook for controlling deforestation. However, both Brazil's even more anti-environmental National Congress to take office in 2023 and *Lula's* own record on a variety of environmental issues, such as Amazonian dams, indicate that a strong set of trade restrictions is needed to support the defense of the Amazon and its people (Fearnside 2022b).

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