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The first acts of Brazil's new president: Lula's new Amazon institutionalization

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Brief introduction

When Luiz Inácio Lula da Silva ('Lula') took office as Brazil's president in January 2023, he initiated a series of measures to reverse the damage that his predecessor, Jair Bolsonaro, had done to Amazonia's environment and indigenous peoples and to the Brazilian government's agencies and policies that affect them. Lula faces challenges both from the legacy of Bolsonaro and from contradictions within his own administration. His first acts have potential benefits in inaugurating a new Amazon institutionalization to address some of the causes of the region's environmental and social problems. There has been a notable change in political discourse, but containing damaging trends will also require political changes. The Brazilian government has primary responsibility for containing environmental destruction and must devote the necessary political capital and financial resources to do so. Nevertheless, international assistance and influence will also be needed, including environmental criteria on imports of Brazilian commodities (a key tool for convincing Brazil's powerful agribusiness sector to support environmental controls).

Bolsonaro's setbacks

Throughout the 2019–2022 Bolsonaro administration, illegal Amazon deforestation and mining were stimulated both by Bolsonaro's rhetoric and by his many anti-environmental decrees. Brazil's federal government tolerated and even encouraged illegal activities, which reached record levels (Ferrante & Fearnside 2019, 2020a, 2020b, 2022a, Deutsch 2021, Vilani et al. 2022).

Lula's promising policies

President Lula has established a new Amazonian institutionalization that is represented by the Ministry of the Environment and Climate Change, the Ministry of Indigenous Peoples and the National Foundation for Indigenous Peoples (FUNAI), under the command of three female leaders – Marina Silva, Sônia Guajajara and Joenia Wapichana – who have long been engaged in struggles to challenge the appropriation of Amazonian territory. This addresses a longstanding need for including the demands, voices, histories and land-management practices of traditional peoples in decision-making processes (Acselrad 2004, Zhouri & Oliveira 2010).

Upon his inauguration, Lula revoked a long series of his predecessor's decrees and replaced them with new decrees to restore the effectiveness of environmental controls, assure representation of traditional peoples and establish a new institutionalization. Details of these changes are given in the Supplementary Material (Section S1). The new ministries and other changes highlight constitutional prerogatives such as the recognition, guarantee and promotion of the rights of indigenous peoples, the demarcation of indigenous territories, the preservation, conservation and sustainable use of ecosystems, biodiversity and forests, the protection and restoration of native vegetation, access to land by traditional communities, agrarian reform and land-tenure regularization. Note, however, that both investments in restoration and land-tenure regularization can have indirect effects that are damaging to the environment (Fearnside 2023a). The decree creating the Ministry of Indigenous Peoples made the new ministry responsible for international agreements concerning indigenous peoples and explicitly mentioned International Labour Organization Convention 169 (Brazil PR 2023: Annex I, Chapter 1, Article 1, § vi). If Convention 169's requirement for prior consultation with indigenous peoples is complied with, it would represent a great improvement to both human rights and the environment in the Amazon (e.g., Ferrante et al. 2020, Ferrante & Fearnside 2021a).

Lula's current contradictions

Lula's own past record and recent statements indicate areas of concern for the current administration's future positions (Supplementary Material, Section S2). These include



statements during his 2022 campaign vehemently defending his building the Madeira River dams and initiating the Belo Monte Dam, his support for legalizing illegal land claims on government land and his support for the BR-319 (Manaus–Porto Velho) highway project, provided only that state and local governments have a commitment to ‘preservation’ (Fearnside 2023a, 2023b, 2023c, 2023d). The environmental damage would be enormous if the plans for BR-319 and its side roads were to come to fruition (Fearnside 2022). The initial list of priority infrastructure projects for the Lula administration’s first 100 days, released on 18 January 2023, did not include BR-319, but after pressure from politicians from the state of Amazonas the list was amended 2 weeks later to include this notorious highway project (Brasil 2023).

The ministers appointed by Lula in his current administration include ruralists (large landholders and their representatives) such as Carlos Fávaro, the current minister of agriculture who, prior to his appointment, was the senator serving as rapporteur for PLS 510/2020 – a bill that would induce land grabbing and deforestation (Carrero et al. 2022). Fávaro was also part of the agriculture policy portion of Lula’s transition team, which also included Evandro Gussi, the president and chief executive officer of the Union of the Sugarcane and Bioenergy Industry (UNICA), who has long defended opening the Amazon to sugarcane plantations (Ferrante 2022). Lula’s administration has maintained Bolsonaro’s pesticide release policy and, in the first quarter of 2023, authorizations were granted for the use of more than 100 new agricultural chemicals (Pedlowski 2023).

Current political resistance against Lula

Brazil’s National Congress is dominated by political forces contrary to Lula’s environmental agenda (Ferrante & Fearnside 2021b, ClimaInfo 2022a), as are Amazonian state governments (ClimaInfo 2022b), and, at the level of Amazonian municipalities (counties), support for Bolsonaro and his anti-environmental agenda is strongest precisely where the most deforestation is occurring (Peres et al. 2023). Overcoming the political contradictions in the coalition format of the Lula administration is fundamental to the success of the proposed institutional framework, for protecting the Amazon’s indigenous peoples and biodiversity and for combating climate change.

Conservative political forces will remain cohesive and aligned with the ruralist agenda of undermining environmental legislation, weakening social movements and appropriating constitutionally protected areas (Campos 2022, Milhorange 2022). These forces include the Agricultural Parliamentary Front and the Evangelical Parliamentary Front (Ferrante & Fearnside 2019).

Lula’s efforts to transform the approach to the environment and indigenous peoples in Amazonia can expect to encounter resistance due to the composition of right-wing state governments with pro-mining and agribusiness agendas (Supplementary Material, Section S3). Over half (55.5%) of the nine states in the Brazilian Amazon had governors classified by Bolognesi et al. (2023) as ‘right wing’, followed by the ‘extreme right’ (33.3%). Only one state (Maranhão) elected a governor from a party that is not in these categories. Particularly challenging is the state of Amazonas, which covers c. 30% of the total area of the Brazilian Amazon. Between August 2021 and July 2022, an area of 10 781 km² was deforested in the Brazilian Amazonia, 36% of which occurred in an area known as ‘AMACRO’ on the border between the three states whose initials comprise this acronym: Amazonas, Acre and Rondônia (Fig. 1). This deforestation is related to the expansion of

agribusiness, especially cattle ranching (IMAZON 2022). Amazonas and Rondônia have elected extreme right-wing governors who did not present an indigenous agenda or any planned action against illegal deforestation and fires. All three state governors in the AMACRO region were elected after campaigns that proposed promoting agribusiness. In Amazonas, the state government’s environmental agency is accused of facilitating the illegal extraction of over 45 000 truckloads of rainforest logs from Gleba João Bento, an area in the AMACRO region in the southern part of the state (Wenzel 2023). This wood was extracted between 2013 and 2021, much of it during the previous 2019–2022 term of recently re-elected governor Wilson Lima; 30% was extracted in 2020 alone (Wenzel 2023).

Record-breaking deforestation occurred in the Amazon in the first 3 months since President Lula’s inauguration (Poder360 2023). This increase is likely a reflection of the dismantling of environmental protection during the Bolsonaro administration (plus initial delays in filling key staff positions in the environmental agency) and the fact that more time is required to reverse the empowerment of agents such as land grabbers, loggers and gold miners (Ferrante et al. 2021a, Ferrante & Fearnside 2022a, Bustamante et al. 2023). More worrisome is the Lula administration’s neglecting of the impact of large developments (e.g., Highway BR-319; see Ferrante et al. 2021a) and deforestation generated by Brazilian commodities (Ferrante et al. 2021b, Ferrante & Fearnside 2022b). Resumption of environmental inspection alone is insufficient. There is an urgent need for the government to take concrete actions against large construction projects that cause increased deforestation, such as Highway BR-319 (Ferrante et al. 2021a, Bustamante et al. 2023).

Suggestions

It is essential for Lula’s administration to obtain internal support – both political and social – for the conservation of the Amazon and to obtain the collaboration of international entities, such as the United Nations, to help in curbing the ongoing violence in the Brazilian Amazon and in stopping the extermination of indigenous peoples. Seven elements could contribute to restructuring conservation actions in the Amazon: (1) complete the restoration of the Amazon Fund; (2) encourage all Amazonian states to create special secretariats for indigenous peoples; (3) reconsider large investment projects in mining and agribusiness; (4) revoke Bolsonaro’s anti-environmental measures; (5) establish a new institutionality with indigenous peoples and traditional communities as protagonists; (6) rebuild citizenship of the Amazonian peoples in favour of forest conservation; and (7) improve funding for the environmental and indigenous peoples ministries and associated policies.

A critical question is whether the efforts of Brazil’s federal government will be sufficient to change the internal political agenda and to counter the enormous economic and political strength of agribusiness and mining interests that underlie the environmental destruction that is still in progress (Supplementary Material, Section S3). International funding and other assistance are undoubtedly needed, along with provisions to assure that funds are used for halting Amazon deforestation and forest degradation (Pellicice & Castello 2021, Vilani et al. 2022). Other forms of international influence are also essential, including environmental restrictions by countries and companies that import Brazilian commodities that impact the Amazon forest and its peoples.



Figure 1. Record-breaking fires in August 2022 in Amazonia (*Amazônia Real*, 1 September 2022). Image reused with permission from Lima (2022).

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/S0376892923000139>.

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References

- Acsegrad H (2004) As práticas espaciais e o campo dos conflitos ambientais. In: H Acsegrad (ed.), *Conflitos Ambientais no Brasil* (pp. 13–35). Rio de Janeiro, Brazil: Relume Dumará.
- Bolognesi B, Ribeiro E, Codato A (2023) A new ideological classification of Brazilian political parties. *Dados Revista de Ciências Sociais* 66: e20210164.
- Brasil (2023). Deputados do AM aprovam BR-319 entre prioridades de Lula. *Amazonas em Tempo* (31 January) [www document]. URL <http://bit.ly/3HD5Sdc>
- Brazil PR (2023) Decreto 11.355 de 01 de janeiro de 2023 [www document]. URL <https://bit.ly/3WcRLkk>
- Bustamante MMC, Hipolito J, Delgado PGG, Ferrante L, Vale MM (2023) The future of Brazilian science. *Nature Human Behaviour*. Epub ahead of print. DOI: 10.1038/s41562-023-01597-7.
- Campos RD (2022) Why the far-right will continue to radicalise in Brazil. *Alternautas* 9: 253–261.
- Carrero GC, Walker RT, Simmons CS, Fearnside PM (2022) Land grabbing in the Brazilian Amazon: stealing public land with government approval. *Land Use Policy* 120: 106133.
- ClimaInfo (2022a) Desmonte ambiental: Próximo Congresso será ‘mais boiadeiro’ que o atual. *ClimaInfo* (6 October) [www document]. URL <http://bit.ly/3rRCngm>
- ClimaInfo (2022b) Candidatos ao governo dos estados da Amazônia abraçam ‘boiada antiambiental’. *ClimaInfo* (27 September) [www document]. <http://bit.ly/3D0uOdl>
- Deutsch S (2021) Populist authoritarian neoliberalism in Brazil: making sense of Bolsonaro's anti-environment agenda. *Journal of Political Ecology* 28: 823–845.
- Fearnside PM (2017a) Belo Monte: actors and arguments in the struggle over Brazil's most controversial Amazonian dam. *Die Erde* 148: 14–26.
- Fearnside PM (2017b) Brazil's Belo Monte Dam: lessons of an Amazonian resource struggle. *Die Erde* 148: 167–184.
- Fearnside PM (2022) Amazon environmental services: why Brazil's Highway BR-319 is so damaging. *Ambio* 51: 1367–1370.
- Fearnside PM (2023a) Lula e a questão fundiária na Amazônia. *Amazônia Real* (17 January) [www document]. URL <http://bit.ly/3DFo3hr>
- Fearnside PM (2023b) Lula e as hidrelétricas na Amazônia. *Amazônia Real* (30 January) [www document]. URL <https://bit.ly/3Kh22cL>
- Fearnside PM (2023c) The outlook for Brazil's new presidential administration. *Trends in Ecology and Evolution* 38: 387–388.
- Fearnside PM (2023d) Lula e a rodovia BR-319. *Amazônia Real* (24 January) [www document]. URL <http://bit.ly/3wTDWgv>
- Ferrante L (2022) Plano bioenergético na Amazônia pode gerar trabalho escravo e nova pandemia. *Ecoa UOL* (18 November) [www document]. URL <http://bit.ly/3j7pEW3>
- Ferrante L, Fearnside PM (2019) Brazil's new president and 'ruralists' threaten Amazonia's environment, traditional peoples and the global climate. *Environmental Conservation* 46: 261–263.
- Ferrante L, Fearnside, PM (2020a) Brazil threatens indigenous lands. *Science* 368: 481–482.
- Ferrante L, Fearnside PM (2020b) Military forces and COVID-19 as smokescreens for Amazon destruction and violation of indigenous rights. *Die Erde* 151: 258–263.
- Ferrante L, Fearnside PM (2021a) Brazilian government violates indigenous rights: what could induce a change? *Die Erde* 152: 200–211.
- Ferrante L, Fearnside PM (2021b) Brazil's political upset threatens Amazonia. *Science* 371: 898.
- Ferrante L, Fearnside PM (2022a) Mining and Brazil's indigenous peoples. *Science* 375: 276.
- Ferrante L, Fearnside PM (2022b) Countries should boycott Brazil over export-driven deforestation. *Nature* 601: 318.
- Ferrante L, Gomes M, Fearnside PM (2020). Amazonian indigenous peoples are threatened by Brazil's Highway BR-319. *Land Use Policy* 94: 104548.
- Ferrante L, Andrade MBT, Fearnside PM (2021a) Land grabbing on Brazil's Highway BR-319 as a spearhead for Amazonian deforestation. *Land Use Policy* 108: 105559.



- Ferrante L, Barbosa RI, Duczmal L, Fearnside PM (2021b) Brazil's planned exploitation of Amazonian indigenous lands for commercial agriculture increases risk of new pandemics. *Regional Environmental Change* 21: 81.
- IMAZON (2022) Desmatamento da Amazônia chega a 10.781 km² nos últimos 12 meses, o maior em 15 anos. Belém, PA, Brazil: IMAZON (Instituto do Meio Ambiente e o Homem na Amazônia) [www document]. URL bit.ly/3ggNiOK
- Lima W (2022) Queimadas batem recorde em agosto na Amazônia. *Amazônia Real* (1 September) [www document]. URL <http://bit.ly/3YpZBZj>
- Milhorance C (2022) Policy dismantling and democratic regression in Brazil under Bolsonaro: coalition politics, ideas, and underlying discourses. *Review of Policy Research* 39: 752–770.
- Pedlowski M (2023) Brasil: de lixeira química a polo mundial da fabricação de agrotóxicos (banidos) [www document]. URL <https://bit.ly/3Hb4Rdi>
- Pelicice FM, Castello L (2021) A political tsunami hits Amazon conservation. *Aquatic Conservation* 31: 1221–1229.
- Peres CA, Campos-Silva J, Ritter CD (2023) Environmental policy at a critical junction in the Amazon. *Trends in Ecology and Evolution* 38: 113–116.
- Poder360 (2023) Amazônia tem recorde de alertas de desmatamento em fevereiro [www document]. URL <https://bit.ly/444uINH>.
- Vilani RM, Ferrante L, Fearnside PM (2022) Amazonia threatened by Brazilian President Bolsonaro's mining agenda. *Die Erde* 153: 254–258.
- Wenzel F (2023) Os cupins da floresta. *The Intercept – Brasil* (17 January) [www document]. URL <http://bit.ly/3JGysNy>
- Zhou A, Oliveira R (2010) Quando o lugar resiste ao espaço. Colonialidade, modernidade e processos de territorialização. In: A Zhoui, K Laschefski (eds), *Desenvolvimento e Conflitos Ambientais* (pp. 439–462). Belo Horizonte, Brazil: Universidade Federal de Minas Gerais.

Supplementary Material

The first acts of Brazil's new president: Lula's new Amazon institutionalality

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S1.) Lula's initial decrees

The symbolic dimension of the new institutionality was represented by the the Administration Transition Cabinet (GTG 2022) in defining five priority axes for the revision of norms: (i) Deforestation control: fully repeal Decrees 10,142/2019, 10,239/2019 and 10,845/2021 that contributed to illegal deforestation in the Amazon; (ii) Impunity: revoke Decree 9760/2019 and, partially, Decree 10,086/2022, which made the administrative procedure for enforcing environmental regulations more difficult and, in practice, ended the collection of fines for violations; (iii) Illegal mining: revoke Decree 10,966/2022 that created a legal condition called “artisanal mining” that legitimized illegal mining in the Amazon (Fearnside 2022, Vilani et al. 2022); (iv) Amazon Fund: revoke Decrees 10,223/2020 and 10,144/2019 that resulted in the Amazon Fund being paralyzed; (v) National Council for the Environment (CONAMA): revise Decree 11,018/2022 in order to restructure CONAMA to fulfill its constitutional functions.

On 1 January 2023, the date of President Lula's inauguration, Decree 11,369/2023 revoked Decree 10,966/2022. Decree 10,142 of 28 November 2019, which had established the Executive Commission for the Control of Illegal Deforestation and Recovery of Native Vegetation, and 10,239 of 11 February 2020, provides for the National Council for the Legal Amazon, were revoked by Decree 11,367/2023. Thus, actions to combat deforestation will be resumed through the creation of the Permanent Interministerial Commission for the Prevention and Control of Deforestation and the reestablishment of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm). Another set of decrees was signed by President Lula on 1 January 2023 that will help promote protection of the Amazon by strengthening democratic institutions and insuring inclusion of members of Amazonia's diverse cultural groups. We highlight the revocation of FUNAI/IBAMA Joint Normative Instruction No. 12 of 31 October 2022, which aimed to legitimize the illegal exploitation of timber in indigenous lands.

Decree 11,373/2023 amended provisions regarding infractions and administrative sanctions to the environment in order to guarantee the publication of notices of infraction and to strengthen the National Environmental Fund (FNMA). Public investment, through the FNMA, was revised by Decree 11,372/2023, which restored social participation in the public agenda, including the inclusion of a representative of indigenous peoples and a representative of traditional peoples and communities in the Deliberative Council of the FNMA. Decree 11,368/2023 reestablished the governance of the Amazon Fund, which was dismantled during the Bolsonaro administration. In order to re-establish the participation of various sectors in federal collegiate bodies, Decree 11,371/2023 revoked Decree 9759, of April 11, 2019, which aimed to reduce and merge collegiate bodies in the environmental area and increase public participation in these bodies. As a way to combat violence, Decree 11,366/2023 suspends registration for the acquisition and transfer of weapons and ammunition for restricted use by hunters, collectors, sport shooters and private individuals, among other measures, until new rules are defined by a working group. Decrees 11,355/2023, 11,349/2023 and 11,338/2023 established, respectively, the structure of the Ministry of Indigenous Peoples, the Ministry of the Environment and Climate Change and the Ministry of Agrarian Development and Family Agriculture.

S2.) Contradictions within the Lula administration

The presidential administrations of Lula's Workers' Party (2003-2016) were marked by two major setbacks in the environmental area. First, the Growth Acceleration Programs (PACs) of the Lula administrations, large investments were made in logistics, energy and mining projects that caused deterritorialization of indigenous peoples and that were carried out on the basis of gross underestimation of their social and environmental impacts, in addition to limiting the participation of affected communities (Machado & Vilani 2015, Fainguelernt 2016, Fearnside 2017a,b). Second, the gutting of Brazil's Forest Code in 2012, during the first Dilma Rousseff administration, was a process in which "landowners demonstrated their hegemony and eliminated legal impediments to perpetuating their social and environmental crimes" (Paulino 2014, p. 136). Note that the ministries of environment and agriculture were on opposite sides of the issue that in the case of gutting the Forest Code, and that President Dilma's own preference became clear when she subsequently appointed as her minister of science and technology the federal deputy who had drafted and sponsored the bill that gutted the code. The Chamber of Deputies, where representation is proportional to population, voted in a ratio of seven to one to gut the code, even though opinion polls at the time indicated over 85% of Brazil's population opposed to any change in the code, thereby demonstrating the enormous political power of the "ruralists" (large landholders and their representatives) that derives from the money generated by Brazil's agricultural exports (Fearnside 2018).

S3.) Right-wing Amazonian state and local governments

Using data available in the Superior Electoral Court system (TSE 2022), we analysed the electoral platforms of eight of the nine governors elected in the states in Brazil's Legal Amazon Region (Table S1). Only the proposal from the elected governor of Mato Grosso was not available.

Table 1. Amazon governors' agendas and party ideologies

State	Party	Party Ideology	Indigenous agenda	Mining agenda	Fires and illegal deforestation
Acre	Progressistas	Right	XX	O	XX
Amapá	Solidariedade	Right	XX	XX	X
Amazonas	União Brasil	Extreme right	O	O	O
Maranhão	PSB	Center-left	XX	O	X
Mato Grosso	União Brasil	Extreme right	NA	NA	NA
Pará	MDB	Right	XX	X	XX
Rondônia	União Brasil	Extreme right	O	O	O
Roraima	Progressistas	Right	XX	O	O
Tocantins	Republicanos	Right	X	O	X

O - Not mentioned

X - Mentioned

XX - Specific actions listed

NA - Not available

Source: Bolognesi et al. (2023); Tribunal Superior Eleitoral (TSE 2022)

Anti-environmental agendas will be defended by right-wing senators elected for the 2023-2027 period. Twenty-two of the 27 senators from the Amazonian region belong to right-wing parties, one to a party centre of the political spectrum, three to centre-left and one to left-wing party. Only one is from Workers' Party (considered left-wing) and so with direct alignment with President Lula (Senado Federal 2023).

S4.) The legacy of Bolsonaro

When Bolsonaro became president in January 2019, he launched an agenda actively promoting the rhetoric of the occupation of these “unproductive spaces” (Milhorange 2022), and his supporters want this to continue. This agenda, which is composed of a set of laws, decrees and the gutting of inspection agencies, is known as the “death agenda” due to its impact on Brazil’s environment and traditional peoples (Ferrante & Fearnside 2019).

Bolsonaro strengthened the conservatives parties with the militarization of government agencies and the discourse of hate (Ferrante & Fearnside 2019, 2020a, 2021), and he tried on more than one occasion to organize a coup to perpetuate his time in power (Ferrante & Fearnside 2021). During Bolsonaro’s administration, the number of Brazilian neo-Nazi “cells” on the internet exploded to a total of over 1000, and the scale of the threat gained public attention when a rally in support of Bolsonaro featuring Nazi salutes was held in the state of Santa Catarina (Bechara 2022; Figure S2). Although most of those who voted for Bolsonaro in the 2022 election are not members of violent groups, these groups can cause significant harm. In the Amazon region the actions of these groups were facilitated by Bolsonaro’s dismantling of environmental and indigenist agencies leading to violence against indigenous peoples and environmentalists (Barbosa et al. 2021, Sauer et al. 2020, Wanderley et al. 2020, Ferrante & Fearnside 2021).



Figure S2. Neo-Nazis salute in a rally in support of Bolsonaro: “not an isolated case” (Bechara 2022).

Bolsonaro consistently defended the withdrawal of rights from indigenous peoples during the over 20 years that he was a back-bench federal deputy in the lower house of the Brazilian National Congress (Ferrante & Fearnside 2019). In an address to the congress on 16 April 1998, Bolsonaro said the following:

“It’s even worth an observation at this point: the Brazilian Cavalry was really very incompetent. Competent, indeed, was the North American Cavalry, which decimated its Indians in the past and nowadays this problem does not exist in their country”. (*DCD* 1998, p. 9,957).

During his presidency, Bolsonaro encouraged illegal mining through his discourse and he and his top officials held various friendly meetings with mining entrepreneurs who were organizing these activities, including those in the territory of the Yanomami people (e.g., Gabriel 2023, Sassine 2023). This resulted in more than 20,000 gold miners invading the Yanomami indigenous land (Ferrante & Fearnside 2022a). Bolsonaro made clear his support for illegal mining in indigenous lands, and inhibited Brazil’s environmental agencies from acting to remove illegal miners when he personally ordered the sacking of staff of the IBAMA who had carried out their duty to destroy mining equipment in indigenous land (Ferrante & Fearnside 2020a),

Human rights violations of traditional peoples in Brazil increased enormously during the COVID-19 pandemic as a result of actions by the Bolsonaro administration, including invasions of indigenous lands (Ferrante & Fearnside 2020a), expropriations and expulsion of traditional peoples from their lands (Coelho-Junior et al. 2020), lack of consultation indigenous peoples on large planned developments that impact them (Ferrante et al. 2020a, Ferrante & Fearnside 2020b) and even blocking government agencies from supplying drinking water and hospital beds to indigenous communities during the height of the COVID-19 pandemic (Ferrante et al. 2021b).

The actions of the Bolsonaro government resulted in a legacy of vulnerability for traditional communities in the Amazon, especially indigenous peoples who are a risk group for COVID-19 (Ferrante & Fearnside 2020c), and mortality from COVID-19 is much higher among indigenous people than non-indigenous people. A large contribution to this mortality was one of the legacies left by the Bolsonaro government (Sansone et al. 2022), and the loss of an elder to COVID-19 can represent the loss of an entire culture because the indigenous traditions are passed down orally by the elders (Ferrante et al. 2020b). Indigenous lands have a role beyond the protection of traditional peoples, also being fundamental for the protection of biodiversity and ecosystem services in the Amazon (Ferrante & Fearnside 2022b).

During Bolsonaro’s administration at least 570 Yanomami children died from preventable causes (Crescer & Agência Brasil 2023). In January 2023, the Lula administration’s Ministry of Health declared a Public Health Emergency of National Importance for the Yanomami territory in response to the condition of “children and elderly people in a serious state of health, with severe malnutrition, in addition to many cases of malaria, acute respiratory infection” (Ministério da Saúde 2023). Due to the seriousness of the situation, Decree No. 11,384 of 20 January 2023 created the National Coordination Committee to Combat Sanitary Lack of Assistance for Populations in Yanomami Territory. The inter-ministerial Committee will draw up an action plan to face the lack of health care for populations in Yanomami territory and the resulting social and health problems.

President Lula visited the Yanomami territory on 21 January 2023 and confirmed that the Yanomami people were in a “state of abandonment”. He removed 11 Ministry of Health district coordinators of indigenous health from their posts and 43 FUNAI staff including 13 who were military personnel (UOL 2023).

The Bolsonaro administration did not comply with Brazil’s constitutional provisions guaranteeing: (i) the dignity of the human person (art. 1, III), (ii) the right to an ecologically balanced environment (art. 225), and (iii) indigenous rights (art. 231). The Bolsonaro administration ignored six objectives established in the constitution: (i) to preserve and ensure essential ecological processes (art. 225, §1, I); (ii) preserve the diversity and integrity of the national genetic heritage (art. 225, §1, II); (iii) protect fauna and flora and their ecological function (art. 225, §1, VII); (iv) prevent the extinction of species (art. 225, §1, VII); (v) shelter, defend and value Brazil’s cultural heritage, such as sites with historical, scenic, ecological and scientific value (art. 216, V), and (vi) protect the social organization, customs, languages, beliefs and traditions, and the original rights of indigenous peoples (art. 231).

References

- Andrade MBT, Ferrante L, Fearnside PM (2021) Brazil’s Highway BR-319 demonstrates a crucial lack of environmental governance in Amazonia. *Environmental Conservation* 48: 161-164. <https://doi.org/10.1017/S0376892921000084>
- Barbosa LG, Alves MAS, Grelle CEV (2021) Actions against sustainability: Dismantling of the environmental policies in Brazil. *Land Use Policy* 104: art. 105384. <https://doi.org/10.1016/j.landusepol.2021.105384>
- Bechara V (2022) Casos de inspiração neonazista no Brasil entram na mira das autoridades. *Veja* 30 November 2022. <http://bit.ly/3D1x4RC>
- Bolognesi B, Ribeiro E, Codato A (2023) A new ideological classification of Brazilian political parties. *Dados Revista de Ciências Sociais* 66: art. e20210164. <https://doi.org/10.1590/dados.2023.66.2.303x>
- Campos RD (2022) Why the far-right will continue to radicalise in Brazil. *Alternautas* 9: 253–261. <https://doi.org/10.31273/an.v9i2.1278>.
- Coelho-Junior MG, Iwama AY, González TS, Silva-Neto EC, Araos F, Carolino K, Campolina D et al. (2020) Brazil's policies threaten communities and their lands amid the COVID-19 pandemic. *Ecosystems and People* 16: 384-386. <https://doi.org/10.1080/26395916.2020.1845804>
- Crescer, Agência Brasil (2023) 570 crianças da etnia Yanomami morreram por causas evitáveis nos últimos 4 anos, aponta levantamento. <http://bit.ly/3WB5GAI>
- DCD (Diário da Câmara dos Deputados)* (1998) Quinta-feira, 16 de abril de 1998, p. 09957. <https://bit.ly/3wY2Efu>
- Fainguelernt MB (2016) A trajetória histórica do processo de licenciamento ambiental da usina hidrelétrica de Belo Monte. *Ambiente & Sociedade* 19(2): 245-264. <http://bit.ly/3XJuPuf>

Fearnside PM (2017a) Belo Monte: Actors and arguments in the struggle over Brazil's most controversial Amazonian dam. *Die Erde* 148: 14-26 <https://doi.org/10.12854/erde-148-27>

Fearnside PM (2017b) Brazil's Belo Monte Dam: Lessons of an Amazonian resource struggle. *Die Erde* 148: 167-184. <https://doi.org/10.12854/erde-148-46>.

Fearnside PM (2018) Challenges for sustainable development in Brazilian Amazonia. *Sustainable Development* 26: 141-149. <https://doi.org/10.1002/sd.1725>

Ferrante L, Fearnside PM (2019) Brazil's new president and 'ruralists' threaten Amazonia's environment, traditional peoples and the global climate. *Environmental Conservation* 46: 261-263. <https://doi.org/10.1017/S0376892919000213>

Ferrante L, Fearnside PM (2020a) Brazil threatens indigenous lands. *Science* 368: 481-482. <https://doi.org/10.1126/science.abb6327>

Ferrante L, Fearnside PM (2020b) Amazon's road to deforestation. *Science* 369: 634. <https://doi.org/10.1126/science.abd6977>

Ferrante L, Fearnside PM (2020c) Protect indigenous peoples from COVID-19. *Science* 368: 251 <https://doi.org/10.1126/science.abc0073>

Ferrante L, Fearnside PM (2021) Brazilian government violates Indigenous rights: What could induce a change? *Die Erde* 152: 200-211. <https://doi.org/10.12854/erde-2021-584>

Ferrante L, Fearnside PM (2022a) Mining and Brazil's indigenous peoples. *Science* 375: 276. <https://doi.org/10.1126/science.abn6753>

Ferrante L, Fearnside PM (2022b) Indigenous lands protect Brazil's agribusiness. *Science*, 376: 810. <https://doi.org/10.1126/science.abq7243>

Ferrante L, Gomes M, Fearnside PM (2020a) Amazonian indigenous peoples are threatened by Brazil's Highway BR-319. *Land Use Policy* 94: art. 104548. <https://doi.org/10.1016/j.landusepol.2020.104548>

Ferrante L, Steinmetz WA, Almeida ACL, Leão J, Vassão RC, Tupinambás U, Fearnside PM et al. (2020b) Brazil's policies condemn Amazonia to a second wave of COVID-19. *Nature Medicine* 26: 1315. <https://doi.org/10.1038/s41591-020-1026-x>

Ferrante L, Andrade MBT, Fearnside PM (2021a) Land grabbing on Brazil's Highway BR-319 as a spearhead for Amazonian deforestation. *Land Use Policy* 108: art. 105559. <https://doi.org/10.1016/j.landusepol.2021.105559>

Ferrante L, Duczmal L, Steinmetz WA, Almeida ACL, Leão J, Vassão RC, Tupinambás, U et al. (2021b) How Brazil's President turned the country into a global epicenter of COVID-19. *Journal of Public Health Policy* 42: 439–451. <https://doi.org/10.1057/s41271-021-00302-0>

Gabriel J (2023) Governo Bolsonaro deu aval inédito para garimpo próximo à terra Yanomami. *Folha de São Paulo* 23 January 2023. <http://bit.ly/3kJy3je>

GTG (Gabinete de Transição Governamental) (2022) Relatório Final. URL bit.ly/3XdEusD.

Guatelli C (2022) As Brazil starts repaving an Amazon highway, land grabbers get to work. *Mongabay* 13 October 2022. <http://bit.ly/3JGxVew>

Machado CJS, Vilani RM (2015) *Governança Climática no Antropoceno: Da Rudeza dos Fatos à Esperança no Brasil*. Rio de Janeiro: E-papers. 212 pp. <http://bit.ly/3XBd2FC>

Milhorance C (2022) Policy dismantling and democratic regression in Brazil under Bolsonaro: Coalition politics, ideas, and underlying discourses. *Review of Policy Research* 39: 752–770. <https://doi.org/10.1111/ropr.12502>

Ministério da Saúde (2023) Ministério da Saúde declara emergência em saúde pública em território Yanomami. URL <http://bit.ly/3wrBHAF>

Paulino ET (2014) The agricultural, environmental and socio-political repercussions of Brazil's land governance system. *Land Use Policy* 36: 134-144. <https://doi.org/10.1016/j.landusepol.2013.07.009>

Sansone NM, Boschiero SMN, Ortega MM, Ribeiro IA, Peixoto AO, Mendes RT, Marson FAL (2022) Severe acute respiratory syndrome by SARS-CoV 2 infection or other etiologic agents among Brazilian indigenous population: An observational study from the first year of coronavirus disease (COVID)-19 Pandemic. *Lancet Regional Health – Americas* 28: art. 100177. <https://doi.org/10.1016/j.lana.2021.100177>

Sassine V (2023) Inquérito de genocídio dos yanomamis apura conduta de garimpeiros, saúde indígena e políticos. *Folha de São Paulo* 25 January 2023. <http://bit.ly/3X38eIb>

Sauer S, Leite AZ, Tubino NLG (2020) Agenda política da terra no governo Bolsonaro. *Revista da ANPEGE* 16: 285-318. <https://doi.org/10.5418/ra2020.v16i29.12518>

Senado Federal (2023) Senadores em exercício. URL <http://bit.ly/3Hr3w18>

TSE (Tribunal Superior Eleitoral) (2022) Divulgação de candidaturas e contas eleitorais. URL <http://bit.ly/3kuDe6r>

UOL (2023) Governo Lula dispensa 43 servidores na Funai; ao menos 13 são militares. UOL 24 January 2023. <http://bit.ly/3R7rkeP>

Vilani RM, Ferrante L, Fearnside PM (2022) Amazonia threatened by Brazilian President Bolsonaro's mining agenda. *Die Erde* 153: 254-258. <https://doi.org/10.12854/erde-2022-622>

Wanderley LJ, Gonçalves RJA, Milanez B (2020) O interesse é no minério: O neoextrativismo ultraliberal marginal e a ameaça de expansão da fronteira mineral pelo

governo Bolsonaro. *Revista da ANPEGE* 16: 549-593.
<https://doi.org/10.5418/ra2020.v16i29.12457>

When Luiz Inácio Lula da Silva ('Lula') took office as Brazil's president in January 2023, he initiated a series of measures to reverse the damage that his predecessor, Jair Bolsonaro, had done to Amazonia's environment and indigenous peoples and to the Brazilian government's agencies and policies that affect them. Lula faces challenges both from the legacy of Bolsonaro and from contradictions within his own administration. His first acts have potential benefits in inaugurating a new Amazon institutionalism to address some of the causes of the region's environmental and social problems. There has been a notable change in political discourse, but containing damaging trends will also require political changes. The Brazilian government has primary responsibility for containing environmental destruction and must devote the necessary political capital and financial resources to do so. Nevertheless, international assistance and influence will also be needed, including environmental criteria on imports of Brazilian commodities (a key tool for convincing Brazil's powerful agribusiness sector to support environmental controls).