

BRAZILIAN AMAZONIAN POLITICS AND POLICY (2019–22) AND THE NEED FOR TRANSFORMATIVE CHANGE¹

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INTRODUCTION

The interconnected climate and biodiversity crises are two of the most pressing challenges facing the world today. As a major greenhouse gas (GHG) emitter and the planet's most biodiverse country, Brazil is a key player with regards to the stabilization of the Earth system. However, and despite the potential it shows for transitioning toward a green economy, the country became an environmental villain in recent years. The anti-environmentalist and anti-indigenist administration of President Jair Bolsonaro (2019–22) partly dismantled environmental governance. The Amazon and its more-than-human populations were severely hit by Bolsonaro's predatory agenda, which supported and legitimized the interests of the anti-conservationist forces within economic sectors such as agribusiness and mining, and fueled organized crime and violence in the region.

In the period between 2019 and 2022, Amazonian deforestation reached levels not seen since 2008²). As a result, Brazilian emissions increased. While global emissions declined by approximately 7% during the COVID-19 forced confinement in 2020,³ in Brazil, emissions grew by 10%.⁴ In 2021, the country's emissions grew by over 12% – the highest increase in almost two decades. The forest and land-use sector represented approximately half of the country's gross emissions; deforestation in the Amazon, which reached its highest level in fifteen years (13,038 km²),⁵ accounted for almost 80% of the sector's total

ABSTRACT

Despite its potential to transition toward a green economy, the country became an environmental villain in recent years. The anti-environmentalist and anti-indigenist administration of President Jair Bolsonaro (2019–22) partly dismantled environmental governance. The Amazon and its more-than-human populations were severely hit by Bolsonaro's predatory agenda, which supported and legitimized the interests of the anti-conservationist forces within economic sectors such as agribusiness and mining, and fueled organized crime and violence in the region. This paper provides an overview and analysis of Amazonian politics and policy during this period, and discusses the importance of, and possibilities for, a transformative approach to the governance of the region.

Keywords: environmentalist governance, Brazil, Amazon, Jair Bolsonaro.

RESUMO

Apesar do seu potencial para transitar para uma economia verde, o Brasil tornou-se nos últimos anos um vilão ambiental. O Governo antiambiental e anti-indígena do Presidente Jair Bolsonaro (2019-2022) desmante-



lou parcialmente a governança ambiental. A Amazônia e as suas populações mais que humanas foram severamente atingidas pela agenda predatória de Bolsonaro, que apoiou e legitimou os interesses de forças anti-conservacionistas no seio de setores econômicos como o agronegócio e a mineração, e alimentou o crime organizado e a violência na região. O artigo analisa as políticas amazônicas durante aquele período e discute a importância e as possibilidades de uma abordagem transformadora para a governança da região.

Palavras-chave: governança ambiental, Brasil, Amazônia, Jair Bolsonaro.

emissions. These grew by nearly 20%.⁶ In 2022, Amazonian deforestation remained high (11,568 km²).⁷

The Amazon is a critical element of the Earth system and has been losing resilience; growing evidence suggests that the forest may be approaching a tipping point whereby large parts of it will turn into a savanna; in fact, some areas of the region are already changing from rainforest into savanna.⁸ To put the Amazon on a long-term sustainability path, transformative change is needed. This paper provides an overview and analysis of Amazonian politics and policy over the period 2019 to 2022, and discusses the importance of, and possibilities for, a transformative approach to the governance of the region.

BRAZILIAN AMAZONIAN POLITICS AND POLICY UNDER THE BOLSONARO ADMINISTRATION (2019–22)

Jair Bolsonaro was elected in late 2018 with the support of those who were disappointed with Brazil's main political parties, particularly the Workers' Party (PT), the country's evangelicals and the business and financial sectors. His government was composed by a group of radical market-friendly ministries displaying a predatory vision of development, namely economy, agriculture, infrastructure and mines and energy; an anti-environmentalist minister of environment; a climate skeptical, conspiracy theory believer minister of foreign affairs, supporter, alongside the minister of education and Bolsonaro, of recently deceased Olavo de Carvalho, a self-proclaimed philosopher who distorted historical and scientific facts; and a group of military-led ministries, namely defense, science and technology and the presidency's institutional security office, supportive of resource-extraction projects and the building of infrastructure in the Amazon as a means to increase the state's control over the region.⁹ Alongside, his government denied anthropogenic climate change, rejected any ecological considerations in public policy and partly dismantled Brazilian environmental policy and institutions; it deliberately betrayed the basic principles, norms and goals of the environmental sector.¹⁰

In that sense, the Bolsonaro administration eliminated the Ministry of Environment's (MMA) Secretariat of Climate Change and Forestry; severely cut the budget of the MMA and science spending; handed over indigenous land demarcation to the ministry of agriculture; recognized farms established illegally within indigenous lands; terminated the most important deforestation control program in the Amazon (PPCDam); tried to withdraw financial resources from the Amazon Fund to compensate for land expropriation (as a consequence, Norway and Germany suspended payments to the fund); exonerated the director of the institute responsible for monitoring and tracking deforestation in the Amazon, and removed other scientists and technicians from office;

intimidated and restricted civil society participation in environmental policy councils; failed to impose environmental fines; put environmental management in the hands of the military; loosened regulations on timber exports; eased the registration of occupied public lands by transferring land titling and regularization to municipalities; etc.¹¹ The government took advantage of the COVID-19 health crisis to advance its environmentally destructive agenda.¹² As a result, illegal deforestation increased and invasions of indigenous lands and violence against environmental and human rights defenders escalated; land conflicts and illegal mining on indigenous and protected lands as well as the export of threatened species' timber boomed.¹³ In fact, illegal mining and logging and land grabbing are now being financed by organized crime in the region; these investments have expanded rapidly in recent years, as regional governance deteriorated.¹⁴

Despite harsh international criticism, the Bolsonaro administration stood firm and justified its Amazonian policy as being a means to promote economic growth and protect Brazilian sovereignty over the region against foreign interference. It re-

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vised the National Council of the Legal Amazon (NCLA), which had been inactive for three decades; the NCLA became the body responsible for fighting illegality in the region and the Amazon was militarized. This decision drained resources from the MMA into the ministry of defense; at the same time, military officers took the place of public career servants and environmental protection programs were eliminated.¹⁵ Moreover, the military stayed away from deforestation hotspots and there were cases in which they intentionally obstructed inspection operations.¹⁶

As a consequence of the Bolsonaro administration's disastrous response to the pandemic health crisis and the resignation of the minister of justice, who publicly accused the president of politically interfering in Brazil's federal police with the purpose of having access to police intelligence reports, calls for impeachment mushroomed, leaving Bolsonaro isolated. As a result, in 2020 he allied himself to the *Centrão* coalition in Congress, that is, a group of deputies who, in exchange for political favors, support the government in office, and among which are the powerful and most radical, anti-conservationist representatives of the agribusiness sector. In early 2021, a Bolsonaro supporter, Arthur Lira, became president of the Chamber of Deputies. Within this context, a bill severely weakening environmental licensing in the country (PL 3729/2004) and another one legalizing the occupation of public lands and amnestying land grabbing (PL 2633/2020) were approved; they are now stuck in the Senate.¹⁷

However, from the second half of 2020, criticism of the president's policy for the Amazon grew internally. This is explained by a number of factors, namely growing European opposition to ratification of the EU-Mercosur Trade Agreement, criticism by international investors, awareness of Amazonian forests' potential to provide credits for carbon

offsetting and Donald Trump's electoral defeat, which have empowered Brazilian pro-environmental forces and made several sectors of society display a greener position. For example, a coalition of organizations in the agribusiness sector, companies, non-governmental organizations and academics became vocal against Amazonian deforestation. Moreover, the change of presidential administration in the US prompted the resignation of climate skeptical Brazilian minister of foreign affairs in March 2021, who was accused by Congressmen of having isolated the country internationally. The new head of the ministry identified climate change as a pressing problem in his swearing speech, thus breaking with his predecessor. In May, amid growing opposition and having become the subject of a police investigation into alleged favoring of businessmen from the timber sector, the minister of environment resigned. His successor toned down the discourse, but in practice the MMA's orientation did not change, as the new minister was also close to predatory agribusiness. Within this context, as a means to improve the government's foreign image and profit from forest conservation mechanisms, Brazil adopted a more climate-friendly rhetoric internationally; domestically, it presented a vague green growth program and a renewed version of the low carbon agriculture plan, announced increased climate mitigation targets (including a carbon neutrality goal for 2050) and began working on a new but weak national climate policy as well as on a bill to create the Brazilian Market for Emissions Reductions.¹⁸

During its last year in office, and faced with divisions within agribusiness and the risk of losing the support of part of the sector, which feared an international boycott,¹⁹ the Bolsonaro administration maintained a more restrained discourse about environmental issues; nevertheless, attempts at further undercutting environmental governance continued, in some cases justified by the war in Ukraine.²⁰ Moreover, a powerful Russian government oil and gas company bought drilling rights over 16 blocks in the Western part of the Amazon, a vast area of intact forest. A planned highway (BR-319) would allow access to three of those blocks; associated side roads (e.g. AM-366) to the other blocks could also be built. These would open the area to landgrabbers, squatters, loggers, ranchers and other actors.²¹ In December 2022, two weeks before leaving office, the Bolsonaro administration approved logging on indigenous lands.²²

In the context of the October 2022 presidential election, environmental issues gained prominence in debates and the propaganda campaigns raised by the coalitions of Lula da Silva and Simone Tebet. They became particularly relevant from September onwards, when notable environmentalist and former minister of environment Marina Silva announced her support to Lula after his public endorsement of her ambitious proposals for the environmental sector in Brazil,²³ and became an active voice in the former president's campaign. In turn, Bolsonaro's campaign raised the fear that land invasions by landless rural workers, which had declined significantly during the president's administration,²⁴ would jump up again under a PT government,²⁵ and argued that indigenous land demar-

cation, at the core of Marina Silva's environmental agenda, would cause landowners to lose their lands and compromise Brazilian food security.²⁶

On October 30, Lula da Silva won the presidential election with 51% of the popular vote. He vowed to promote sustainable development in the Amazon and fight for zero deforestation, support low carbon agriculture, create an indigenous ministry and a national authority for climate change to coordinate public policies toward a comprehensive, cross-sectoral approach to the problem, and work toward building international partnerships that could help the country achieve its socioenvironmental goals; he also expressed his wish to host the 2025 Conference of the Parties (COP)

IT SEEMS LIKELY THAT CLIMATE CHANGE, AND THE AMAZON IN PARTICULAR, WILL BE A PRIORITY OF LULA'S DOMESTIC AND FOREIGN POLICIES.

of the United Nations Framework Convention on Climate Change (UNFCCC) in the Amazon,²⁷ fully breaking with the Bolsonaro administration. Lula attended COP27 in November, a few days after his election, reaffirming his 'commitment to fight climate change with determination'; he appears to see climate change not only as an environmental problem, but also as a social one.²⁸ It seems likely that climate change, and the Amazon in particular, will be a priority of Lula's domestic and foreign policies. However, the new government will face significant challenges, which I will briefly address in this paper's conclusion, after discussing the paradigms, goals and values driving the destruction of the Amazon, and the dire need for transformative change across the region.

WHY A TRANSFORMATIVE APPROACH TO AMAZONIAN GOVERNANCE IS NEEDED

Despite its planetary importance, the Amazon is seen predominantly as a source of commodities. Amazonian policy has been informed by a predatory development paradigm according to which modernization and progress mean land occupation and natural resource exploitation; a paradigm based on an instrumentalist, exploitative, utilitarian relationship with the forest. The non-anthropocentric ways of understanding and being of the indigenous peoples and other local communities are generally associated with underdevelopment and backwardness; smallholder family farmers' traditional farming systems, which can be part of a sustainable land use agenda, are seen as primitive, inefficient and unproductive. The insights and interests of people living in the region as well as nature's rights are at the margins of decision-making. The human enmeshment in and dependence on nature, and the unbreakable link between ecological and social concerns, are not considered; accordingly, fragmented policy approaches to environmental protection and development prevail. This, in turn, fuels social conflicts across the Amazon and hinders the possibility of building alliances that might bridge tensions between environmentalism and developmentalism. The prevailing command-and-control regulatory approach to the governance of the region fails to mitigate tensions and conflicts²⁹). Moreover, policymakers continue to assume pro-

gressive and linear processes of ecological degradation, thus overlooking the likelihood of the Amazon's tipping point being eventually crossed³⁰). In sum, fragmented, exclusionary and anthropocentric policies for the Amazon as well as the policymakers' disregard for the voices of scientists – who have insistently warned that signs of dieback are already visible in part of the region – are jeopardizing the forest's resilience. Hence, it is unsurprising that over half of the population in Amazonas State live below the poverty line, half the tree species in the Amazon are threatened with extinction and the forest's vertebrate populations have declined greatly over the last decades.³¹

A transformative approach to the governance of the Amazon is needed to enable transformative change across the region and to reverse socioecological destruction.³² Visseren-Hamakers and Kok define transformative change as 'a fundamental, society-wide reorganization across technological, economic and social factors and structures, including paradigms, goals and values',³³ and transformative governance as

'[t]he formal and informal (public and private) rules, rule-making systems and actor-networks at all levels of human society (from local to global) that enable transformative change [...] towards biodiversity conservation and sustainable development more broadly'.³⁴

It includes five governance approaches, namely integrative, inclusive, transdisciplinary, adaptive and anticipatory governance; these should be implemented in conjunction and address the underlying causes of nature's destruction.³⁵

An integrative approach to governance is 'operationalized in ways that ensure solutions also have sustainable impacts at other scales and locations, on other issues and in other sectors'; to be inclusive, governance should 'empower and emancipate those whose interests are currently not being met and who represent values that constitute transformative change toward sustainability [e.g., indigenous communities]'; adaptive governance 'enable[s] learning, experimentation, reflexivity, monitoring and feedback';³⁶ governance is transdisciplinary when it 'recognize[s] different knowledge systems, and support[s] the inclusion of sustainable and equitable values by focusing on types of knowledge that are currently underrepresented';³⁷ finally, an anticipatory approach to governance 'appl[ies] the precautionary principle when governing in the present for uncertain future developments, and especially the development or use of new technologies'.³⁸ According to Visseren-Hamakers and Kok,

'[a]ny actor can contribute to transformative governance, and governance mixes can be polycentric in character, encompassing initiatives by actors operating in different places, sectors or at different levels of governance. All actors can regularly evaluate whether the governance mix includes the necessary governance instruments to address the indirect drivers underlying a specific sustainability issue, and governance mixes will need to evolve

as sustainability transformations progress. Over time, governance will become increasingly transformative, and transformative governance will become easier, as societal structures increasingly become sustainable'.³⁹

To protect the Amazon and enhance living conditions in the region, Brazil's current development paradigm will have to be transformed. '[T]he prevailing understanding of the Amazon has been dominated by the study of how the forest could better serve us. We need to start finding creative forms through which we can also serve the forest, in reciprocal ways.'⁴⁰ In this process, fighting regional poverty and inequality as well as empowering vulnerable populations is critical. 'This could conceive a mix of innovative and traditional meanings to the forest.'⁴¹ To achieve these goals, Brazil will primarily require, not only a new vision of humankind's relationship with nature, but also a cross-sectoral and cross-issue, or integrative, approach to Amazonian policy, which can make development harmonious with nature, protecting biodiversity, ensuring the flow of ecosystem goods, providing socioeconomic opportunities for local communities, enhancing the resilience of ecosystems and regional adaptability to climate change, and maintaining and increasing forest carbon stocks.⁴² This task could be facilitated by the creation, in Brazil, of a national authority for climate change, as previously mentioned. Second, an inclusive model of governance which allows for the transformation of power dynamics in the region through ensuring full and effective participation in decision-making by marginalized populations as well as incorporating the transformative sustainability values of indigenous peoples into policies will be equally important.⁴³ In this regard, the establishment of an indigenous ministry in Brazil might be key. Third, due to the complexity of socioecological systems, and to ensure that the Amazon tipping point is not crossed, adaptive governance ought to be part of a transformative governance agenda for the region. Fourth, a transdisciplinary approach to governance which integrates indigenous understandings into Western cognitive systems might help the country find new directions in perceiving and relating to the forest; the creation of adaptive solutions to socioecological problems integrating conventional, indigenous and traditional knowledge systems can strengthen Brazil's capacity to meet its socioenvironmental goals.⁴⁴ Finally, a precautionary stance in uncertain situations is crucial when intervening in socioecological systems to prevent potential harm; anticipatory governance is thus necessary.


The election of Lula opened a window of opportunity for developing a transformative approach to the governance of the Amazon. Yet, by the end of 2022, the future remains uncertain.

CONCLUSION

As I have discussed elsewhere⁴⁵, despite his ambitious discourse, Lula will face major challenges, which include the hard task of rebuilding the environmental institutions

that have been severely damaged by Bolsonaro, including the MMA itself; a powerful organized crime network in the Amazon; Bolsonaro-aligned regional governors; anti-environmentalist lawmakers in the newly-elected Congress, which is more conservative than the previous one;⁴⁶ a difficult economic situation; conservative agribusiness, which still perceives environmental protection as an obstacle to development; and a divided country. On the other hand, Marina Silva will again head the MMA, which is a promising sign⁴⁷. Moreover, because deforestation control seems to have become a growing concern among part of the country's elites in recent years, Brazilian pro-environmental forces may

‘capitalise on this moment to expose the limitations of entrenched power relations and predatory development discourses [...], and create alternative, powerful narratives of change that can reach the wide public and encourage the questioning of prevailing social-structuring paradigms. [...] [B]uilding and strengthening coalitions of like-minded actors representing transformative sustainability values [is critical for developing the necessary processes of co-creation with nature]’.⁴⁸

The international community should join efforts to promote long-term transformative change toward sustainable development in the Amazon, and ensure that the region does not reach a tipping point. After all, the forest is one of the most important spaces for safeguarding the long-term survival of humanity and the sustainability of planetary life. At the same time, the Amazon and its local experiences provide valuable insights for both questioning and rethinking our place in, and relationship to, the planet at a critical time when the global crisis of the Anthropocene is risking humanity's security and survival. 

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2 INPE - 'Monitoramento do desmatamento da floresta amazônica brasileira por satélite'. 2022. Available in: <http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/prodes>.

3 LE QUÉRÉ, Corinne, et al. - 'Temporary reduction in daily global CO₂ emissions during the covid-19 forced confinement'. In *Nature Climate Change*. No. 10, 2020, pp. 647-53.

4 'NA CONTRAMÃO DO mundo, Brasil aumentou emissões em plena pandemia'. Observatório do Clima. 2021. Available in: <https://www.oc.eco.br/na-contramao-do-mundo-brasil-aumentou-emissoes-em-plena-pandemia/>.

5 INPE - 'Monitoramento do desmatamento da floresta amazônica brasileira por satélite'.

6 OBSERVATÓRIO DO CLIMA - *Pushing the Whole Lot through: The Second Year of Environmental Havoc under Brazil's Jair Bolsonaro*. 2021. Available in: <https://www.oc.eco.br/wp-content/uploads/2021/01/Passando-a-boiada-EN-1-1.pdf>

7 INPE - 'Monitoramento do desmatamento da floresta amazônica brasileira por satélite'.

8 See, for instance, STAAL, Arie, et al. - 'Hysteresis of tropical forests in the 21st century'. In *Nature Communications*. Vol. 11, no. 4978. DOI: <https://doi.org/10.1038/s41467-020-18728-7>; BOULTON, Chris A.; LENTON, Timothy M.; BOERS, Niklas - 'Pronounced loss of Amazon rainforest resilience since the early 2000s'. In *Nature Climate Change*. No. 12, 2022, pp. 271-78.

9 PEREIRA, Joana Castro; VIOLA, Eduardo - *Climate Change and Biodiversity Governance in the Amazon: At the Edge of Ecological Collapse?*. New York: Routledge, 2022.

10 LIMA, Mairon G. Bastos; DA COSTA, Karen - 'Quo vadis, Brazil? Environmental malgovernance under Bolsonaro and the ambiguous role of the Sustainable Development Goals'. In *Bulletin of Latin American Research*. Vol. 41, no. 4, 2022, pp. 508-24.

11 PEREIRA, Joana Castro; VIOLA, Eduardo - 'Neither mitigator nor adapter: climate neglect and denial in a vulnerable Brazil'. In ARCE, Moisés, et al., eds. - *Ideas, Interests, Institutions, and Nation-state Climate Politics: Mitigators, Adapters, and Mitigator-adapters*. Oxford: Oxford University Press. Forthcoming.

12 For a full register of the Bolsonaro administration's anti-environmentalist actions, see: Observatório do Clima - *The Worst Is Yet to Come: A Year of Environmental Havoc under*

Brazil's Far-right President Jair Bolsonaro. 2019. Available in: <https://www.oc.eco.br/wp-content/uploads/2020/01/Relato%CC%81rio-COP25-Ajustes-v3.pdf>; OBSERVATÓRIO DO CLIMA - *Pushing the Whole Lot through...*; OBSERVATÓRIO DO CLIMA - *Brazil: 1000 Days of Destruction. How Jair Bolsonaro Became the World's Most Dangerous Climate Denier*. 2021. Available in: https://www.oc.eco.br/wp-content/uploads/2021/11/1000Days_Digital_E_v1.pdf; OBSERVATÓRIO DO CLIMA - *The Bill Has Come Due: The Third Year of Environmental Havoc under Jair Bolsonaro*. 2022. Available in: <https://www.oc.eco.br/wp-content/uploads/2022/02/Relato%CC%81rio-OC.pdf>. Also: VALE, Mariana M., et al. - 'The covid-19 pandemic as an opportunity to weaken environmental protection in Brazil'. In *Biological Conservation*. Vol. 255, no. 108994, 2021.

13 PEREIRA, Joana Castro; VIOLA, Eduardo - 'Neither mitigator nor adapter...'

14 CLEMENT, Charles, et al. - 'Desenvolvimento amazônico sequestrado pelo crime organizado'. OECO. 2022. Available in: <https://oeco.org.br/analises/desenvolvimento-amazonico-sequestrado-pelo-crime-organizado/>.

15 *Ibid.*

16 FERRANTE, Lucas; FEARNside, Philip - 'Military forces and covid-19 as smokescreens for Amazon destruction and violation of indigenous rights'. In *Die Erde - Journal of the Geographical Society of Berlin*. Vol. 151, no. 4, 2020, pp. 258-63.

17 PEREIRA, Joana Castro; VIOLA, Eduardo - 'Neither mitigator nor adapter...'

18 *Ibid.*

19 'PRESIDENTE DA CNA: apoio do agro a Bolsonaro foi "questão de momento"'. UOL. 8 December 2021. Available in: <https://economia.uol.com.br/noticias/redacao/2021/12/08/apoio-do-agro-a-bolsonaro-foi-questao-de-momento-diz-presidente-da-cna.htm>.

20 See, for instance, SOUSA, Oswaldo B. de - 'Ruralistas aprovam projetos que ampliam desmatamento em comissão da Câmara'. Instituto Socioambiental. 2022. Available in: <https://www.socioambiental.org/noticias-socioambientais/ruralistas-aprovam-projetos-que-ampliam-desmatamento-em-comissao-da-camara>; RIBEIRO, Ricardo da Silva, et al. - 'Amazon deforestation restrictions likely to be circumvented'. In *Die Erde - Journal of the Geographical Society of Berlin*. Vol. 153, no. 3, 2022, pp. 216-17. Available in: <https://www.die-erde.org/index.php/die-erde/article/view/621>; TRINDADE, Paulo Arthur A., et al. - 'War serves as excuse for Amazon destruction'. In *Science*. Vol. 376, no. 6596, 2022, pp. 928-29.

21 FEARNside, Philip - 'Putin's financial interest in Brazil's Amazon highways'. Mongabay Latam. 2022. Available in: <https://news.mongabay.com/2022/05/putins-financial-interest-in-brazils-amazon-highways-commentary/>.

22 PEIXOTO, Roberto - 'No fim do mandato, Bolsonaro libera exploração de madeira em terras indígenas, inclusive por não indígenas'. In *Globo*. 16 December 2022. Available in: <https://g1.globo.com/meio-ambiente/noticia/2022/12/16/no-fim-do-mandato-bolsonaro-libera-exploracao-de-madeira-em-terras-indigenas-inclusive-por-nao-indigenas.ghtml>.

23 PONTES, Fábio - 'Marina e Lula reatam relações políticas após atritos em governos petistas no passado'. O Eco. 12 September 2022. Available in: <https://oeco.org.br/noticias/marina-e-lula-reatam-relacoes-politicas-apos-atritos-com-governos-petistas-no-passado/>

24 'GOVERNO BOLSONARO registra queda histórica de invasões de fazendas'. In *Veja*. 29 December 2021. Available in: <https://veja.abril.com.br/politica/governo-bolsonaro-registra-queda-historica-de-invasoes-de-fazendas/>.

25 'LEIA A ÍNTEGRA do debate presidencial na Globo, Eleições 2022'. UOL. 29 October 2022. Available in: <https://noticias.uol.com.br/eleicoes/2022/10/29/integra-debate-da-globo.htm>.

26 'MARINA APOIOU O PT por demarcação de terras, diz Bolsonaro'. Poder360. 13 September 2022. Available in: <https://www.poder360.com.br/eleicoes/marina-apoiou-o-pt-por-demarcacao-de-terras-diz-bolsonaro/>.

27 'LULA DIZ QUE pedirá à onu para Amazônia sediar a Conferência do Clima em 2025'. In *Globo*. 16 November 2022. Available in: <https://g1.globo.com/meio-ambiente/cop-27/noticia/2022/11/16/lula-encontro-governadores-cop-27.ghtml>; CLIMAINFO - 'Autoridade climática gera tensão dentro da transição de governo'. 5 December 2022. Available in: <https://climainfo.org.br/2022/12/04/autoridade-climatica-gera-tensao-dentro-da-transicao-de-governo/>; EPBR - 'Primeiros 100 dias de governo devem priorizar redução de emissões, avalia sociedade civil na cop27'. 9 November 2022. Available in: <https://epbr.com.br/primeiros-100-dias-de-governo-devem-priorizar-reducao-de-emissoes-avalia-sociedade-civil-na-cop27/>.

28 Cit. in 'O QUE ESPERAR da política ambiental no novo governo Lula'. In *Folha de S. Paulo*. Podcast Café da Manhã. 6 December 2022. Available in: <https://www1.folha.uol.com.br/podcasts/2022/12/podcast-o-que-esperar-da-politica-ambiental-no-novo-governo-lula.shtml>.

29 PEREIRA, Joana Castro; GEBARA, Maria Fernanda - 'Where the material and the symbolic intertwine: making sense of the Amazon in the Anthropocene'. In *Review of International Studies*. 2022, pp. 1-20.

30 PEREIRA, Joana Castro; VIOLA, Eduardo - *Climate Change and Biodiversity Governance in the Amazon...*

- 31 PEREIRA, Joana Castro; TERRENAS, João – 'Towards a transformative governance of the Amazon'. In *Global Policy*. Vol. 13, S3, 2022, pp. 60–75.
- 32 *Ibid.*
- 33 VISSEREN-HAMAKERS, Ingrid. J.; KOK, Marcel T. J. – 'The urgency of transforming biodiversity governance'. In VISSEREN-HAMAKERS, Ingrid. J.; KOK, Marcel T. J., eds. – *Transforming Biodiversity Governance*. Cambridge: Cambridge University Press, 2022, pp. 3–21.
- 34 *Ibid.*, p. 10.
- 35 *Ibid.*, p. 34.
- 36 *Ibid.*, p. 11.
- 37 *Ibid.*
- 38 *Ibid.*, p. 11. For an example of a transfor-

mative governance project for the Amazon, see PEREIRA, Joana Castro; TERRENAS, João – 'Towards a transformative governance of the Amazon'.

- 39 VISSEREN-HAMAKERS, Ingrid. J.; KOK, Marcel T. J. – 'The urgency of transforming biodiversity governance', p. 12.
- 40 PEREIRA, Joana Castro; GEBARA, Maria Fernanda – 'Where the material and the symbolic intertwine...', p. 19.
- 41 *Ibid.*
- 42 PEREIRA, Joana Castro; TERRENAS, João – 'Towards a transformative governance of the Amazon'.
- 43 *Ibid.*
- 44 PEREIRA, Joana Castro; GEBARA, Maria Fernanda – 'Where the material and the symbolic intertwine...', pp. 1–20.

45 PEREIRA, Joana Castro; TERRENAS, João – 'Towards a transformative governance of the Amazon', pp. 70–71.

- 46 It has been estimated that the anti-environmentalist caucus will occupy more than 40% of the seats in the Chamber of Deputies; at the same time, the number of pro-environmental deputies will drop. *Bancada ambiental terá 41% das cadeiras na Câmara, aponta análise*. In *Folha de S. Paulo*, 23 October 2022. Available in: <https://www1.folha.uol.com.br/ambiente/2022/10/bancada-ambiental-tera-41-das-cadeiras-nacamara-aponta-analise.shtml>.
- 47 For a reading of her ambitious action as minister of environment between 2003 and 2008, see, for instance, PEREIRA, Joana Castro; VIOLA, Eduardo – *Climate Change and Biodiversity Governance in the Amazon...*
- 48 *Ibid.*

BIBLIOGRAPHY

"BANCADA AMBIENTAL terá 41% das cadeiras na Câmara, aponta análise". In *Folha de S. Paulo*, 23 October 2022. Available in: <https://www1.folha.uol.com.br/ambiente/2022/10/bancada-ambiental-tera-41-das-cadeiras-na-camara-aponta-analise.shtml>.

BOULTON, Chris A.; LENTON, Timothy M.; BOERS, Niklas – 'Pronounced loss of Amazon rainforest resilience since the early 2000s'. In *Nature Climate Change*. No. 12, 2022, pp. 271–78. DOI: <https://doi.org/10.1038/s41558-022-01287-8>.

CLEMENT, Charles; VIEIRA, Ima; FEARNESIDE, Philip; FERRANTE, Lucas – 'Desenvolvimento amazônico sequestrado pelo crime organizado'. OECO. 2022. Available in: <https://oeco.org.br/analises/desenvolvimento-amazonico-sequestrado-pelo-crime-organizado/>.

CLIMAINFO – 'Autoridade climática gera tensão dentro da transição de governo'. 5 December 2022. Available in: <https://climainfo.org.br/2022/12/04/autoridade-climatica-gera-tensao-dentro-da-transicao-de-governo/>.

EPBR – 'Primeiros 100 dias de governo devem priorizar redução de emissões, avalia sociedade civil na COP27'. 9 November 2022. Available in: <https://epbr.com.br/primeiros-100-dias-de-governo-devem-priorizar-reducao-de-emissoes-avalia-sociedade-civil-na-cop27/>.

FEARNESIDE, Philip – 'Putin's financial interest in Brazil's Amazon highways'. *Mongabay Latam*. 2022. Available in: <https://news.mongabay.com/2022/05/putins-financial-interest-in-brazils-amazon-highways-commentary/>.

FERRANTE, Lucas; FEARNESIDE, Philip – 'Military forces and COVID-19 as smokescreens

for Amazon destruction and violation of indigenous rights'. In *Die Erde – Journal of the Geographical Society of Berlin*. Vol. 151, no. 4, 2020, pp. 258–63. DOI: <https://orcid.org/0000-0003-2636-5713>.

'GOVERNO BOLSONARO registra queda histórica de invasões de fazendas'. In *Veja*, 29 December 2021. Available in: <https://veja.abril.com.br/politica/governo-bolsonaro-registra-queda-historica-de-invasoes-de-fazendas/>.

INPE – 'Monitoramento do desmatamento da floresta amazônica brasileira por satélite'. 2022. Available in: <http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/prodes>.

LE QUÉRÉ, Corinne; JACKSON, Robert B.; JONES, Matthew W.; SMITH, Adam J. P.; ABERNETHY, Sam; ANDREW, Robbie M.; DE-GOL, Anthony J.; WILLIS, David R.; SHAN, Yuli; CANADÉLL, Josep G.; FRIEDLINGSTEIN, Pierre; CREUTZIG, Felix; PETERS, Glen P. – 'Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement'. In *Nature Climate Change*. No. 10, 2020, pp. 647–53. DOI: <https://doi.org/10.1038/s41558-020-0797-x>.

'LEIA A ÍNTEGRA do debate presidencial na Globo, Eleições 2022'. UOL. 29 October 2022. Available in: <https://noticias.uol.com.br/eleicoes/2022/10/29/integra-debate-da-globo.htm>.

LIMA, Mairon G. Bastos; DA COSTA, Karen – 'Quo vadis, Brazil? Environmental malgovernance under Bolsonaro and the ambiguous role of the Sustainable Development Goals'. In *Bulletin of Latin American Research*. Vol. 41, no. 4, 2022, pp. 508–24. DOI: <https://doi.org/10.1111/blar.13336>.

'LULA DIZ que pedirá à ONU para Amazônia sediar a Conferência do Clima em 2025'. In *Globo*, 16 November 2022. Available in: <https://g1.globo.com/meio-ambiente/cop-27/noticia/2022/11/16/lula-encontro-governado-res-cop-27.ghtml>.

'MARINA APOIOU O PT por demarcação de terras, diz Bolsonaro'. *Poder360*, 13 September 2022. Available in: <https://www.poder360.com.br/eleicoes/marina-apoiou-o-pt-por-demarcacao-de-terras-diz-bolsonaro/>.

'NA CONTRAMÃO do mundo, Brasil aumentou emissões em plena pandemia'. *Observatório do Clima*, 2021. Available in: <https://www.oc.eco.br/na-contramao-do-mundo-brasil-aumentou-emissoes-em-plena-pandemia/>.

'O QUE ESPERAR da política ambiental no novo governo Lula'. In *Folha de S. Paulo*, Podcast Café da Manhã, 6 December 2022. Available in: <https://www1.folha.uol.com.br/podcasts/2022/12/podcast-o-que-esperar-da-politica-ambiental-no-novo-governo-lula.shtml>.

OBSERVATÓRIO DO CLIMA – *The Worst Is Yet to Come: A Year of Environmental Havoc under Brazil's Far-right President Jair Bolsonaro*. 2019. Available in: <https://www.oc.eco.br/wp-content/uploads/2020/01/Relato%CC%81rio-COP25-Ajustes-v3.pdf>.

OBSERVATÓRIO DO CLIMA – *Brazil: 1000 Days of Destruction. How Jair Bolsonaro Became the World's Most Dangerous Climate Denier*, 2021. Available in: https://www.oc.eco.br/wp-content/uploads/2021/11/1000Days_Digital_E_v1.pdf.

OBSERVATÓRIO DO CLIMA – *Pushing the Whole Lot through: The Second Year of Environmen-*

tal *Havoc under Brazil's Jair Bolsonaro*. 2021. Available in: <https://www.oc.eco.br/wp-content/uploads/2021/01/Passando-a-boiada-EN-1-1.pdf>.

OBSERVATÓRIO DO CLIMA – *The Bill Has Come Due: The Third Year of Environmental Havoc under Jair Bolsonaro*. 2022. Available in: <https://www.oc.eco.br/wp-content/uploads/2022/02/Relato%CC%81rio-OC.pdf>.

PEIXOTO, Roberto – 'No fim do mandato, Bolsonaro libera exploração de madeira em terras indígenas, inclusive por não indígenas'. In *Globo*. 16 December 2022. Available in: <https://g1.globo.com/meio-ambiente/noticia/2022/12/16/no-fim-do-mandato-bolsonaro-libera-exploracao-de-madeira-em-terras-indigenas-inclusive-por-nao-indigenas.ghml>.

PEREIRA, Joana Castro; GEBARA, Maria Fernanda – 'Where the material and the symbolic intertwine: making sense of the Amazon in the Anthropocene'. In *Review of International Studies*. 2022, pp. 1–20. DOI: <https://doi.org/10.1017/S0260210522000134>.

PEREIRA, Joana Castro; TERRENAS, João – 'Towards a transformative governance of the Amazon'. In *Global Policy*. Vol. 13, S3, 2022, pp. 60–75. DOI: <https://doi.org/10.1111/1758-5899.13163>.

PEREIRA, Joana Castro; VIOLA, Eduardo – *Climate Change and Biodiversity Governance in the Amazon: At the Edge of Ecological Collapse?*. New York: Routledge, 2022. DOI: <https://doi.org/10.4324/9780429296581>.

PEREIRA, Joana Castro; VIOLA, Eduardo – 'Neither mitigator nor adapter: climate neglect and denial in a vulnerable Brazil'. In ARCE, Moisés; DUPONT, Claire; EISENSTADT, Todd; FEOLI, Ludovico; MABOUDI, Tofigh, eds. – *Ideas, Interests, Institutions, and Nation-state Climate Politics: Mitigators, Adapters, and Mitigator-adapters*. Oxford: Oxford University Press. Forthcoming.

PONTES, Fábio – 'Marina e Lula reatam relações políticas após atritos em governos petistas no passado'. *O Eco*. 12 September 2022. Available in: <https://oeco.org.br/noticias/marina-e-lula-reatam-relacoes-politicas-apos-atritos-com-governos-petistas-no-passado/>.

'PRESIDENTE DA CNA: apoio do agro a Bolsonaro foi "questão de momento"'. UOL. 8 December 2021. Available in: <https://economia.uol.com.br/noticias/redacao/2021/12/08/apoio-do-agro-a-bolsonaro-foi-questao-de-momento-diz-presidente-da-cna.htm>.

RIBEIRO, Ricardo da Silva; VICENTE, Ricardo Eduardo; ARROLHO, Solange; FEARNside, Philip M. – 'Amazon deforestation restrictions likely to be circumvented'. In *Die Erde – Journal of the Geographical Society of Berlin*. Vol. 153, no. 3, 2022, pp. 216–17. Available in: <https://www.die-erde.org/index.php/die-erde/article/view/621>.

SOUSA, Oswaldo B. de – 'Ruralistas aprovam projetos que ampliam desmatamento em comissão da Câmara'. Instituto Socioambiental. 2022. Available in: <https://www.socioambiental.org/noticias-socioambientais/>

ruralistas-aprovam-projetos-que-ampliam-desmatamento-em-comissao-da-camara.

STAAL, Arie; FETZER, Ingo; WANG-ERLANDSON, Lan; BOSMANS, Joyce H. C.; DEKKER, Stefan C.; VAN NES, Egbert H.; ROCKSTRÖM, Johan; TUINENBURG, Obbe A. – 'Hysteresis of tropical forests in the 21st century'. In *Nature Communications*. Vol. 11, no. 4978. DOI: <https://doi.org/10.1038/s41467-020-18728-7>.

TRINIDADE, Paulo Arthur A.; ARAÚJO, Juliana S.; AZEVEDO-SANTOS, Valter M.; KEPPELER, Friedrich W.; GIARRIZZO, Tommaso; FEARNside, Philip M. – 'War serves as excuse for Amazon destruction'. In *Science*. Vol. 376, no. 6596, 2022, pp. 928–29. DOI: <https://doi.org/10.1126/science.abq3611>.

VALE, Mariana M.; BERENQUER, Erika; DE MENEZES, Márcio Argollo; DE CASTRO, Ernesto B. Viveiros; DE SIQUEIRA, Ludmila Pugliese; PORTELA, Rita de Cássia Q. – 'The COVID-19 pandemic as an opportunity to weaken environmental protection in Brazil'. In *Biological Conservation*. Vol. 255, no. 108994, 2021. DOI: <https://doi.org/10.1016/j.biocon.2021.108994>.

VISSEREN-HAMAKERS, Ingrid. J.; KOK, Marcel T. J. – 'The urgency of transforming biodiversity governance'. In VISSEREN-HAMAKERS, Ingrid. J.; KOK, Marcel T. J., eds. – *Transforming Biodiversity Governance*. Cambridge: Cambridge University Press, 2022, pp. 3–21. DOI: <https://doi.org/10.1017/9781108856348>.