This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

c08b28b1fdd1d6b92f0de258a49522f3151468f7494d914fbfc315546dc8f391

To view the reconstructed contents, please SCROLL DOWN to next page.

The text that follows is a PREPRINT O texto que segue é um PREPRINT

Please cite as: Favor citar como:

Fernandes, S.S., G.W. Fernandes & P.M. Fearnside. 2023. Viewpoint: Sovereignty and reversing Brazil's history of Amazon destruction. Land Use Policy (in press)

ISSN: 0264-8377

Copyright: Elsevier

The original publication will be available at O trabalho original estará disponível em:

http://www.journals.elsevier.com/land-use-policy

## Viewpoint: Sovereignty and reversing Brazil's history of Amazon destruction

Authors: Stephannie Fernandes<sup>1\*</sup>, Geraldo W. Fernandes<sup>2,3</sup> and Philip M. Fearnside<sup>4</sup>

- 1 Department of Global & Sociocultural Studies, Steven J Green School of International and Public Affairs, Florida International University, 11200 SW 8th Street, SIPA 300, Miami, FL 33199, United States
- 2 Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Minas Gerais, CEP 31270-900, Brazil.
- 3 Brazilian Knowledge Center on Biodiversity, Belo Horizonte, Minas Gerais, Brazil.
- 4 Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Amazonas, CEP 69067-375 Brazil.

#### ORCID:

Stephannie de Souza Fernandes: <u>https://orcid.org/0000-0002-2049-1164</u> Geraldo Wilson Fernandes: <u>https://orcid.org/0000-0003-1559-6049</u> Philip Martin Fearnside: <u>https://orcid.org/0000-0003-3672-9082</u>

\*Corresponding Author Stephannie de Souza Fernandes Florida International University Steven J Green School of International and Public Affairs Department of Global & Sociocultural Studies +1 928 7073965 Email: <u>stephanniesf@gmail.com</u>

#### Acknowledgments

We thank two anonymous reviewers for their comments on an earlier version of the manuscript, and GWF thanks the support provided by CNPq, and Fapemig. PMF's research is funded by the National Council for Scientific and Technological Development (CNPq 312450/2021-4 Fundação de Amparo à Pesquisa do Estado do Amazonas (FAPEAM) (0102016301000289/2021-33), Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) (2020/08916-8) and Brazilian Research Network on Climate Change (FINEP/Rede Clima 01.13.0353-00).

# Viewpoint: Sovereignty and reversing Brazil's history of Amazon destruction

#### 4 Abstract

1

2

3

5 6 Brazilians have lived for many years under governments with discourse proclaiming the 7 need to occupy and develop the Amazon to integrate this vast territory into the rest of the 8 country. Increasing the region's population, economic activity and infrastructure have been 9 promoted to expand agricultural production and to protect Brazil's Amazonian borders and 10 natural resources from foreign nations; but the processes of occupation and development 11 have taken pathways with severe impacts. Infrastructure to connect to markets now 12 facilitates the destruction of the region's forests, and illegal activities were openly 13 supported until recently by Jair Bolsonaro's (2019-2022) presidential administration. 14 Although Brazil's sovereignty over its Amazonian territory is uncontested, today it is a space that is largely controlled by those who exploit the region's commodities, often, 15 16 ironically, led by foreign interests.

17

18 Key-words: Amazon land use policy, Amazon sovereignty, Brazilian environmental policy,
 19 land degradation
 20

21 Main Text:

### 22

23 Introduction24

25 The specter of foreign invasion of the Amazon Basin has always been a source of 26 concern for the different presidential administrations in Brazil, which have often raised alarms 27 claiming immanent threat. The belief that the world is conspiring to take away Brazil's 28 sovereignty in Amazonia, whether by invasion or by converting the region into an 29 international area like Antarctica, has been widespread in the population and is a potent vote-30 getting tool for politicians from all parts of the political spectrum. In Brazilian Amazonia a 31 survey found that 71% of respondents agreed with the statement "I am afraid Amazonia will 32 be internationalized" and 75% agreed that "Foreigners are trying to take over Amazonia" 33 (Barbosa, 1996). This belief is essentially universal among Brazilian diplomats, whose 34 training includes the theory of "Amazonia and international covetousness" as put forward in 35 the many editions of the book by the same title (Reis, 1982).

36

#### 37 Brazilian sovereignty discourse

During the military period (1964-1985) people were brought to the region to settle and assist in the development and integration of the rainforest to the rest of the country (Fearnside, 2008). The slogan was "*Ocupar para não entregar*," meaning "Occupy [Amazonia] so as not to hand it over [to foreigners]". The forest was seen as an impediment to progress. The Brazilian government greatly expanded infrastructure across the region in the 1970s and 1980s. Internal migrations and development activities that aimed to conquer the Amazon are largely responsible for shaping today's geography and society in the region.

45 For many years the belief by Brazilian diplomats that the world is conspiring against 46 the country's sovereignty in Amazonia was the major barrier to Brazil's admission of any 47 connection between Amazonian deforestation and climate change, and to accepting any 48 international payment linked to Amazonia's climatic role (Council on Foreign Relations 49 Independent Task Force, 2001; Fearnside, 2001). This position would only change in 2007 50 after the deforestation rate had fallen to less than half its level three years earlier, and 51 diplomats became convinced that deforestation was under control and that the country could 52 receive funds without risking international pressure compromising sovereignty.

53 During the 2019-2022 term of President Jair Bolsonaro, protecting Amazonian 54 sovereignty dominated official discourse. At the outset of his administration Bolsonaro tried 55 to make good on his campaign promise to withdraw Brazil from the Paris Agreement, 56 claiming that the agreement was part of an international plot to take Amazonia away from 57 Brazil (Fearnside, 2019). He was later persuaded to maintain Brazil in the agreement, but only "for the moment" (Fearnside, 2019); the backtracking was likely due to pressure from soy 58 59 producers who had convinced him not to abolish the Ministry of Environment because such a 60 move could trigger boycotts (Ferrante and Fearnside, 2019).

61 Another announcement at the beginning of the Bolsonaro administration was the massive Barão do Rio Branco project, which included a bridge across the Amazon River and 62 63 a highway to Brazil's border with Surinam. The slogan was, once again, "Ocupar para não 64 entregar" (Wenzel, 2020), and audio recordings later revealed the project was intended to 65 defend the country against invasion by Chinese (Dias, 2019). The astronomical cost of the project, plus COVID-19 and other setbacks, prevented it from advancing. The irony of the 66 67 sovereignty discourse versus the behavior of political leaders in promoting the exploitation of 68 Amazonia by foreign companies is illustrated by the efforts of Bolsonaro and his close 69 supporters to promote two Canadian mining projects impacting Indigenous peoples: the Belo

- 70 Sun gold mine in the state of Pará and the Autazes potassium mine in the state of Amazonas
- 71 (de Freitas Paes, 2022).

72 The Amazon forest has been undergoing rapid deforestation and degradation, with the 73 pace accelerating during the 2019-2022 Bolsonaro administration (Figure 1). Although no 74 international forces have invaded Brazil, the country's Amazonian territory is now being lost 75 to destruction by Brazil itself. A provider of important ecosystem services, the southwestern 76 portion of the forest, which was once a sink of  $CO_2$ , is now a net source of emissions 77 (Nogueira et al., 2019; Gatti et al., 2021). The sequential setbacks in environmental 78 governance in the region are largely motivated by desire to facilitate the "only" invasion in 79 the last decades perpetrated by the Global North: the market demands that slowly take away 80 Amazonia's remaining resources (Rajão et al., 2020). The Bolsonaro administration pushed 81 Amazonia to an advanced state of degradation, and solid proposals are now needed to protect

82 Amazon's forests, rivers, and communities.



83

- 84 Figure 1. Deforestation in Rondônia in Brazil's Amazon region. Photo credit: José Sabino.
- 85

#### 86 Future scenarios

Production of beef and soy that are consumed elsewhere is devastating the region,
where the forest is cut and burned, rivers are dammed and polluted, and the environment is
poisoned with pesticides and heavy metals, while protected areas, Indigenous peoples and

local communities are destroyed by mining. Despite vast natural wealth, selling off the Basin's
natural resources to fuel the prosperity of other nations leaves Brazilian Amazonia stagnated
and undeveloped. As environmental and institutional collapses become more likely, the lack

93 of governance paves the way towards the forest's tipping point (Walker, 2021). Isn't this
94 another type of sovereignty loss for the region? A perfect example is the advance of

95 multinational corporations that are creating further degradation (Angelim et al., 2021).

96 The sovereigns of today's Amazon are those who carry on the agenda of exploitation. 97 Illegal activities advance into protected areas and threaten Amazonian biocultural diversity. 98 The Brazilian presidential administration of Luís Inácio Lula da Silva, who took office in 99 January 2023, faces challenges to establish control of the territory. Voters in the area known 100 as the "arc of deforestation," which is dominated by the agribusiness sector, strongly 101 supported Jair Bolsonaro's unsuccessful presidential bid in the 2022 election. The new 102 administration faces these anti-environmental political forces and the 'developmentalist' 103 legacy left by Bolsonaro.

104 During his campaign, Lula promised to protect the Amazon as a top priority. Soon 105 after his election he traveled to COP27 in Egypt, where he stated his intention to bring Brazil 106 back to the international conversations on climate change and to move forward with 107 mitigation plans. Lula's speech in COP27 reinforced his commitment to the environmental 108 agenda and to complying with the Glasgow Leaders' Declaration on Forest and Land Use, 109 signed by Brazil and 136 other countries during COP26 in 2021 (COP26, 2021). The 110 agreement pledges to "halt and reverse forest loss" by 2030 (COP26, 2021). With less than 111 eight years to achieve zero deforestation rates, the new president will need to move quickly 112 with strong measures to conserve the Amazon rainforest as well as the other country's 113 biodiverse biomes (Fernandes et al., 2023a).

114 One of Lula's first acts was to create the Ministry of Indigenous Peoples and to 115 appoint an Indigenous leader (Sônia Guajajara) to head it. Indigenous territories represent 116 critical barriers against land use change (e.g., Fa et al., 2020), and their protection was eroded 117 under the Bolsonaro administration (Figueira et al., 2019; Conceição et al., 2021). The 118 alliance with Indigenous people is part of the backbone of Lula's conservation agenda, 119 together with the fight against environmental crimes. Lula issued Decree 11,368/2023 to 120 resume the Amazon Fund, Decree 11,367/2023 to resume the Action Plan for the Prevention 121 and Control of Deforestation in the Legal Amazon and Decree 11,417/2023 to reestablish the

National Council for the Environment (Conama), and he revoked Bolsonaro's Decree
10,966/2022 promoting goldmining by "wildcat" prospectors (Oxfam, 2023).

124 Unfortunately, environmentally damaging measures are also in course, such as Law 14,182/2021 that requires 50% of each power utilities' market to be supplied by small 125 126 hydropower plants (SHPs) by 2026. This implies construction of dams throughout the 127 country, including in the Amazon (Ferreira et al., 2022; Fernandes et al., 2023b). Lula's 128 longstanding support for hydroelectric dams is one of the areas of concern regarding the 129 environmental outlook for his administration (Fearnside, 2023a). Another is his announced 130 priority for land "regularization" (a euphemism for legalization of illegal land claims) - a key 131 issue for Brazilian Amazonia's 70 Mha of "undesignated public forests," or government land 132 without a specified function (Fearnside, 2023b). This land is an easy target for land grabbers 133 (Azevedo-Ramos et al., 2020).

134 The first step to avoid further loss of Amazon forest will be rebuilding Brazil's legal 135 apparatus that was partially destroyed by the Bolsonaro administration (Barbosa et al., 2021). 136 Halting further deforestation will also require assigning the undesignated public forests to use 137 as "conservation units" (protected areas for biodiversity) and as Indigenous territories, not 138 converting them to private property. Measures to halt deforestation must be Brazil's first 139 priority at present. Later, once Amazon deforestation is controlled, large scale ecological 140 restoration will be needed (Bustamante et al., 2019). International policies like the European 141 Union's deforestation Law will help to avoid deforestation for commodities in the Amazon, 142 but these policies only prohibit import of certain commodities (Fernandes et al., 2023a). They 143 also fail to address the major indirect effect on Amazonian deforestation caused by 144 conversion of pasture to soybeans in other parts of Brazil (Fearnside, 2017).

145 Beyond regaining the ability to exert environmental control, a new proposal is needed 146 for the Amazon to reconstruct resilience-building approaches and to develop sustainable 147 production models that involve local stakeholders and incorporate diverse forms of 148 knowledge. Creation and demarcation of Indigenous territories is important in this regard. 149 Controlling deforestation and fostering sustainable land uses with low-impact depend on 150 domestic policies and priorities. International policies are also important, including financial 151 and other assistance to Brazil's efforts to halt deforestation, criteria for commodity imports, 152 and control of investments by international companies. Over its history, Brazil did not lose 153 control of its Amazon territory to foreign armies, but rather to the sectors of society that seek

5

- 154 to exploit this region. In Brazil and elsewhere, government, academia and society must
- 155 collaborate to contain the threats to the remaining forest.
- 156

#### 157 **References**

- 158
- 159 Angelim, D., Lima, D.A., Laczynski, P., Boulos, R., Goldfarb, Y. 2021. Invisible hands?
- European corporations and the deforestation of the Amazon and Cerrado biomes. (Accessed23 November 2022). https://bit.ly/3GkSta7f
- 162
- 163 Azevedo-Ramos, C., Moutinho, P., Arruda, V.L. da S., Stabile, M.C.C., Alencar, A., Castro,
- 164 I., Ribeiro, J.P. 2020. Lawless land in no man's land: The undesignated public forests in the
- 165 Brazilian Amazon. Land Use Policy, 99, 104863.
- 166 https://doi.org/10.1016/j.landusepol.2020.104863 167
- 168 Barbosa, L.G., Alves, M.A.S., Grelle, C.E.V. 2021. Actions against sustainability:
- 169 Dismantling of the environmental policies in Brazil. Land Use Policy, 104, 105384.
- 170 https://doi.org/10.1016/j.landusepol.2021.105384
- 171
- 172 Barbosa, L.C. 1996. The people of the forest against international capitalism: Systemic and
- 173 anti-systemic forces in the battle for the preservation of the Brazilian Amazon rainforest.
- 174 Sociological Perspectives, 39, 317–331. https://doi.org/10.2307/1389315
- 175
- 176 Bustamante, M.M.C., Silva, J.S., Scariot, A., Sampaio, A.B., Mascia, D.L .... Nobre, C. 2019.
- 177 Ecological restoration as a strategy for mitigating and adapting to climate change: lessons and
- 178 challenges from Brazil. Mitigation and Adaptation Strategies for Global Change, 24, 1249–
- 179 1270. https://doi.org/10.1007/s11027-018-9837-5
- 180
- 181 Conceição, K.V., Chaves, M.E.D., Picoli, M.C.A., Sánchez, A.H., Soares, A.R., Mataveli, G.
- 182 A.V., ... Camara, G. 2021. Government policies endanger the indigenous peoples of the
- 183 Brazilian Amazon. Land Use Policy, 108, 105663.
- 184 https://doi.org/10.1016/j.landusepol.2021.105663
- 185
- 186 Council on Foreign Relations Independent Task Force. 2001. A letter to the President and a
- 187 memorandum on U.S. policy toward Brazil. Council on Foreign Relations, New York, USA,
  188 13 pp. http://bit.ly/40MBR33
- 188 13 pp. h 189
- 190 COP26. 2021. Glasgow leaders' declaration on forests and land use. 26<sup>th</sup> Conference of the
- 191 Parties (COP26) of the United Nations Framework Convention on Climate Change
- 192 (UNFCCC). (Accessed 24 November 2022). http://bit.ly/3Gq6Gmh
- 193
- 194 de Freitas Paes, C. 2022. Como o lobby de um militar da reserva favoreceu mineradoras
- canadenses na Amazônia. A Pública, 21 February 2022. (Accessed 1 November 2022).
  http://bit.ly/3UeWaUz
- 197
- 198 Dias, T. 2019. Movido a paranoia: Documentos e áudios inéditos mostram planos de
- Bolsonaro para povoar a Amazônia contra chineses, ONGs e igreja católica. The Intercept
- 200 Brasil, 20 September 2019. (Accessed 1 November 2022). https://bityl.co/4085.
- 201

Fa, J.E., Watson, J.E.M., Leiper, I., Potapov, P., Evans, T.D., Burgess, N.D., ... Garnett, S.T. 2020. Importance of Indigenous peoples' lands for the conservation of intact landscapes. Frontiers in Ecology and the Environment, 18, 135–140. https://doi.org/10.1002/fee.2148

Fearnside, P.M. 2023a The outlook for Brazil's new presidential administration. Trends in Ecology and Evolution. https://doi.org/10.1016/j.tree.2023.01.002

Fearnside, P.M. 2023b. Lula e a questão fundiária na Amazônia. Amazônia Real, 17 January 2023. http://bit.ly/3DFo3hr

Fearnside, P.M. 2019. Commentary: Will President Bolsonaro withdraw Brazil from the Paris Agreement? Mongabay, 31 January 2019. (Accessed 30 October 2022). http://bit.ly/3Kqcs8G

Fearnside, P.M. 2017. Deforestation of the Brazilian Amazon. In: H. Shugart (ed.) Oxford Research Encyclopedia of Environmental Science. Oxford University Press, New York, USA. https://doi.org/10.1093/acrefore/9780199389414.013.102

Fearnside, P.M. 2008. The roles and movements of actors in the deforestation of Brazilian Amazonia. Ecology and Society, 13, 23. https://doi.org/10.5751/ES-02451-130123

Fearnside, P.M. 2001. The potential of Brazil's forest sector for mitigating global warming under the Kyoto Protocol. Mitigation and Adaptation Strategies for Global Change, 6, 355-372. https://doi.org/10.1023/A:1013379103245

Fernandes, G.W., Oliveira, H.F.M., Bergallo, H.G., Borges-Junior, V.N.T., Colli, G., Fernandes, S., ... Roque, F.O. 2023a. Hidden costs of Europe's deforestation policy. Science, 379, 341-342. https://doi.org/10.1126/science.adg2983

Fernandes, S., Couto, T.B.A., Ferreira, M., Pompeu, P.S., Athayde, S., Anderson, E.P., & Fernandes, G.W. 2023b. Conserving Brazil's free-flowing rivers. Science, 379, 887 https://doi.org/10.1126/science.adg9858

Ferrante, L., and Fearnside, P.M. 2019. Brazil's new president and "ruralists" threaten Amazonia's environment, traditional peoples and the global climate. Environmental Conservation, 46(4), 261-263. https://doi.org/10.1017/S0376892919000213

Ferreira, M.E., Nogueira, S.H. de M., Latrubesse, E.M., Macedo, M.N., Callisto, M., Bezerra Neto, J.F., & Fernandes, G.W. 2022. Dams pose a critical threat to rivers in Brazil's Cerrado hotspot. Water, 14, 3762. https://doi.org/10.3390/w14223762

Gatti, L.V., Basso, L.S., Miller, J.B., Gloor, M., Gatti Domingues, L., Cassol, H.L.G., ... Neves, R.A.L. 2021. Amazonia as a carbon source linked to deforestation and climate change. Nature, 595, 388–393. https://doi.org/10.1038/s41586-021-03629-6

Nogueira, D.S., Marimon, B.S., Marimon-Junior, B.H., Oliveira, E.A., Morandi, P., Reis, S. M., ... Phillips, O.L. 2019. Impacts of fire on forest biomass dynamics at the southern Amazon edge. Environmental Conservation, 46, 285-292. https://doi.org/10.1017/S0376892919000110 Oxfam Brasil. 2023. 1 mês de governo Lula: O que foi feito até agora contra as desigualdades? (Accessed 2 April 2023). http://bit.ly/3mdBBv0

Rajão, R., Soares-Filho, B., Nunes, F., Börner, J., Machado, L., Assis, D., ... Figueira, D. 2020. The rotten apples of Brazil's agribusiness. Science, 369, 246–248. https://doi.org/10.1126/science.aba6646

Reis, A.C.F. 1982. A Amazônia e a Cobiça Internacional, 5th ed., Civilização Brasileira, Rio de Janeiro, Brazil.

Walker, R.T. 2021. Collision course: development pushes Amazonia toward its tipping point. Environment: Science and Policy for Sustainable Development, 63, 15–25. https://doi.org/10.1080/00139157.2021.1842711

Wenzel, F. 2020. Asfaltando a Amazônia: Bolsonaro inaugura trecho de rodovia federal e planeja mais mil quilômetros cortando áreas protegidas de floresta no Norte do Pará. Folha de São Paulo, Revista Piauí, 14 February 2020. (Accessed 29 November 2022) http://bit.ly/435SYhU