

## ARTICLE

**Populism and the Dismantling of Brazil's Deforestation Oversight Policy<sup>\*,\*\*</sup>****Ana Karine Pereira<sup>1</sup>**<https://orcid.org/0000-0002-7282-6122>**Leila de Moraes<sup>1,3</sup>**<https://orcid.org/0000-0001-8540-4933>**Marta Salomon<sup>1</sup>**<https://orcid.org/0000-0001-8642-4960>**Marília Silva de Oliveira<sup>1</sup>**<https://orcid.org/0000-0002-1055-781X>**Lucas Lacerda<sup>1</sup>**<https://orcid.org/0000-0002-9756-072X>**João Vitor Corso<sup>2</sup>**<https://orcid.org/0000-0002-7846-1566>**Mariana Souto Maior<sup>1</sup>**<https://orcid.org/0000-0002-4909-5579><sup>1</sup>Universidade de Brasília. Brasília/DF, Brazil<sup>2</sup>Universidade do Estado de Santa Catarina. Florianópolis/SC, Brazil<sup>3</sup>Attorney General's Office. Brasília/DF, Brazil

How does the election of far-right populist leaders contribute to the environmental crisis? We delved into this question by conducting an in-depth case study on the impact of Jair Bolsonaro's government (2019-2022) on the rise of deforestation rates in the Legal Amazon. Our focus was on forest deforestation oversight, the main tool for enforcing Brazilian environmental policy against deforestation, particularly in the short term. Since 2019, deforestation rates in the Amazon have surged to concerning levels, identified as the primary driver of greenhouse gas emissions in Brazil. Consequently, controlling deforestation poses a significant challenge for the country to meet its international climate goals and agreements. Our research is grounded in four theoretical approaches: state capacities; populism and public administration; political discourse and populism; and dismantling of public policies. We used process tracing, a case study method designed to make detailed inferences about the existence of a causal mechanism. Formulating empirical propositions and gathering account, trace, and pattern evidence, we hypothesized and tested a mechanism consisting of three parts: discourse, dismantling, and reduction of policy outputs.

**Keywords:** Populism; deforestation oversight; policy dismantling; Amazon; Brazil.

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The rise of authoritarian populist leaders in recent years has spurred numerous research initiatives examining the effects of these governments on democratic stability (LEVITSKY and ZIBLATT, 2018). Nevertheless, research on the effects of authoritarian populist governments on public administration, particularly their capacity to govern and address crises through state institutions and public bureaucracy, is still scarce (BAUER et al., 2021). Recent studies suggest that, despite achieving success in electoral terms, populist governments encounter substantial challenges in governing effectively (PETERS and PIERRE, 2019). This happens because these governments typically hold an anti-establishment stance, leading them to be skeptical of the bureaucracy, which they perceive as working against their new political agenda (MUNO and BRICEÑO, 2021). In such situations, populist governments often aim to capture, reform, dismantle, and sabotage public administration (BAUER and BECKER, 2020).

This article seeks to contribute to this debate by delving into a comprehensive case study of Brazil's environmental policy concerning the oversight of illegal deforestation under the Bolsonaro administration (2019-2022)<sup>1</sup>. Our specific goal is to address the following question: To what extent did the performance and governing style of radical right-wing populism contribute to the escalation of illegal deforestation in the Brazilian Amazon? Focusing on this policy is crucial, especially considering the alarming increase in deforestation rates in the Amazon since 2019. Deforestation is the main driver of greenhouse gas emissions in Brazil, posing a significant challenge for the country to control deforestation and meet international goals for reducing emissions (ESCOBAR, 2020; PASSARINHO, 2021). Between 1990 and 2020, 80% of Brazil's emissions were attributable to deforestation. Moreover, as highlighted by Menezes and Barbosa (2021), there is a gap in contemporary scientific literature when it comes to understanding the effects of right-wing authoritarian populism on environmental governance in the Global South. There is also a lack of research investigating the intersection of the two contemporary crises: the environmental crisis and the crisis of liberal democracy (FORCHTNER, 2019).

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<sup>1</sup>As outlined in the methodology section, the data concerning Bolsonaro's government did not encompass every month of his term.

In Brazil, the environmental crisis is not a recent development, predating the more recent challenges to liberal democracy. It became apparent in the early 20th century, notably marked by the deforestation of the Atlantic Forest biome and the indiscriminate exploitation of water resources (PÁDUA, 1991). According to Hochstetler (2019), the environmental crisis in Brazil shares features with challenges commonly faced both by developing nations, exemplified by significant changes in land use for agriculture, and by developed countries, including issues related to pollution. This crisis is multidimensional and multicausal, driven by complex economic, cultural, social, and political relationships (HOCHSTETLER and KECK, 2007). In response to the perceived environmental crisis in Brazil, both internal and external pressures prompted the early establishment of state environmental institutions (HOCHSTETLER, 2017; HOCHSTETLER and VIOLA, 2012; FRANCHINI et al., 2017).

In this article, we focus on one dimension of the environmental crisis, illegal deforestation, and one of its causes, the political factors linked to the recent crisis of democracy produced by radical right-wing populist governments. Scholars focused on democratic theory, as highlighted by Hochstetler and Keck (2007), have already acknowledged the connection between democracy, democratization, and the environment. According to their interpretation, concepts linked to democracy, such as participation and decentralization, are positively correlated with environmental protection. Nevertheless, experiencing a democratic crisis does not equate to undergoing an environmental crisis, or vice versa. In this article, we delve into the connection between environmental crises and the performance of radical right-wing populist governments, a relatively recent and underexplored phenomenon. These governments have been consistently elected to power in the Western world in recent years.

To address our research question, we centered our investigation on the deforestation oversight policy carried out by the federal government. Deforestation oversight includes prevention, surveillance, inspection, and warning, punitive, and corrective measures (SCHMITT and SCARDUA, 2015). Deforestation is a multi-causal phenomenon influenced by socioeconomic and political variables. Thus, scholars point out that the drivers of land use change in the Amazon are strongly linked to economic opportunities (BOUCHER et al., 2013; NEPSTAD et al., 2014; PEREIRA et al., 2022). In particular, deforestation is associated with commodity prices,

international exchange rates, and the expansion of cattle ranching and soybean production. Other drivers are commercial logging, money laundering, large infrastructure projects, and land speculation (ARAÚJO et al., 2009; FEARNSIDE, 2017; KIRBY et al., 2006).

Studies are focusing now on how institutional factors affect deforestation in tropical forests. The drivers of deforestation are significantly influenced by public policies and government interventions, both directly through measures like credit and tax policies and infrastructure projects and indirectly through the inaction of regulatory institutions (ARAÚJO et al., 2009; CARVALHO et al., 2019; FEARNSIDE, 2017; OMETTO et al., 2011). This article focuses on deforestation oversight, aligning itself with the second approach mentioned. This perspective, emphasizing the role of state institutions, identifies three main aspects of the deforestation oversight policy: policies to plan the use of land and create protected areas, deforestation oversight policies and command-and-control measures, and policies promoting a sustainable economy (CAPOBIANCO, 2021; FEARNSIDE, 2017; OMETTO et al., 2014; PFAFF et al., 2015; RICKETTS et al., 2010). Among these, deforestation oversight emerged as the key tool for command and control in Brazilian environmental policy to mitigate deforestation in the recent period (from 2004 to 2014), producing notable effects, particularly in the short term (CAPOBIANCO, 2021; HOCHSTETLER, 2021).

Deforestation oversight at the federal level is carried out by the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA) and the Chico Mendes Institute for Biodiversity Conservation (ICMbio) (SCHMITT and SCARDUA, 2015). This policy often faces political resistance, especially in polarized contexts where populist leaders mobilize antagonisms, as it interferes with local economic activities. Therefore, this article explores how the performance and governing style of radical right-wing populists (cause) contribute to the rapid increase in rates of illegal deforestation on federally owned lands (outcome) through a causal mechanism involving the dismantling of state capacities in the deforestation oversight sector.

The research was operationalized through process tracing, a method of in-depth case study used to draw causal inferences about the existence of a causal mechanism (BEACH and PEDERSEN, 2019). In this method, confirming the presence of

a causal mechanism linking a cause to an outcome in a specific case does not necessarily mean that other causes have not played a role in producing the outcome unless the causes of a phenomenon are mutually exclusive (BEACH and PEDERSEN, 2019). Furthermore, the method employs tests with a high singularity at the level of cases, which means that other intervening variables do not need to be controlled, as is the case with quantitative methods that investigate causality (BEACH and PEDERSEN, 2016). Therefore, although we acknowledge that the increase in deforestation rates (outcome) is affected by multiple causes, the primary contribution of this article is to demonstrate how one of these causes (the performance and governing style of radical right-wing populists) generates a causal mechanism that leads to our outcome of interest.

The remainder of this article is organized into four sections. The first section presents the theoretical approaches and mobilized studies. The second section details the methodological procedures and introduces the theoretical framework for the causal mechanism. In the third section, the results are presented and discussed. The last section concludes.

### **Populism, state capacities, and the dismantling of public policies**

The theoretical framework employed to examine the impact of the performance and governing style of radical right-wing populists on the increase in deforestation rates in the Brazilian Amazon integrates four perspectives: definitions of populism, populism and public administration, state capacities, and the dismantling of public policies.

Populism has been defined in diverse ways: as a style of political communication characterized by Manichean logic (KNIGHT, 1998); as an ideology that asserts society is split into two opposing groups – the ‘true people’ and the corrupt ‘elite’ (MUDDE, 2004); as a political rationale where the leader exercises power through direct and non-institutionalized support from a significant number of frequently unorganized followers (PETERS and PIERRE, 2019; WEYLAND, 2001); as a political style and performance (MOFFITT, 2016). In this article, we mainly adhere to the latter definition, wherein contemporary populism is seen as a political style centered around a leader (as opposed to a movement or political party). This style is characterized by a performance that includes appeals to the ‘true people’ versus the

'elite', displays of bad manners, and the utilization of crises, threats, and disruptions (MOFFITT, 2016). The appeal to the 'people' is accompanied by a rhetoric that simplifies reality, adopting a performance that contrasts with the technocratic and rationalist style, perceived as an expression of the elites. Here, popular knowledge is portrayed as more suitable than bureaucratic expertise. Leveraging crises is part of a repertoire that creates tension between the public and the elite, often portrayed as the state bureaucracy. The elite is commonly blamed for national problems, while the populist leader is seen as the only one who truly understands the people's needs and can provide effective solutions. Applied studies suggest that populist performance is heavily reliant on discourses to keep the support base engaged, all the while justifying attacks on the bureaucracy and the implementation of measures that negatively impact the interests of vulnerable groups (DUSSAUGE-LAGUNA, 2021).

In this article, despite the definition of populism as performance and style rather than substance (which can be applied to various ideologies), we examine the effects of the performance/style of populism on the environmental crisis within the context of a particular ideology, namely the radical right. The use of the term 'radical right-wing populism' was influenced by the specific case under study, the Bolsonaro government, which aligned and identified with the global radical right-wing populism. To define this term, we used the studies of Mudde (2007) and Carter (2018). As Carter (2018) noted, populism can be seen as a subset of the radical right. While the radical right includes key features like authoritarianism, anti-democracy, and nationalism, populism is recognized as a trait that might be present but is not obligatory in parties of this political inclination. Mudde (2007), on the other hand, defines the populist version of the radical right (populist radical right) by its opposition to specific aspects of liberal democracy, particularly political pluralism and the safeguarding of minorities. According to Mudde (2007), radical right populism also stands out for its anti-system stance and the naturalized acceptance of social inequalities.

In the environmental field, some studies explore how the radical right and populists deal with environmental issues. The study by Forchtner (2019) on the subject provides a variety of approaches by focusing on the European radical right. It was found that in certain instances, there is a pronounced skepticism regarding the

climate crisis, viewed as a manipulation orchestrated by the scientific community and international organizations. Additionally, certain politicians frame the environmental crisis as a challenge to national sovereignty, as implementing specific solutions would involve reducing reliance on certain energy sources and potentially heightening external dependence.

There is evidence indicating that the climate crisis is being exploited as a tool for performing populism. By adopting a position against this crisis, politicians present themselves as champions of the economic interests of the average citizen, juxtaposing their stance with the perceived opaque and oppressive interests of the system. On the other hand, some radical right politicians express support for environmental conservation within a framework of green patriotism. In this perspective, they advocate for a return to a pre-industrial society and see combating immigration as a way to address environmental issues. Meanwhile, Miguel's study (2022) on the Bolsonaro government illustrates how the conservative liberal far right leverages the climate crisis to integrate its core values, encompassing free-market principles, the defense of private property, and the Christian subjectivity of Western society. This happens because solutions proposed for the climate crisis, such as increased state regulation of productive activities, would threaten these values.

Recently, with the rise of various populist leaders, some studies have investigated the interaction between populism and public administration, highlighting a trend of either a lack of mobilization or distortion of the reservoirs of state capacity by these governments. The concept of state capacity is tied to the notions of effectiveness or performance. It involves leveraging various dimensions, both political-relational and technical-administrative, within the public administration framework and its interactions to ensure the effective implementation of suitable public policies (PIRES and GOMIDE, 2018, 2016). In this article, we understand state capacity as the organizational and bureaucratic abilities to process information, implement public policies, and maintain government systems (CENTENO et al., 2017). State capacity reservoirs include budgetary and informational resources (HOWLETT and RAMESH, 2016). They also involve the dynamic between public administration and social actors (EVANS, 2012), along with the quality of bureaucracy (EVANS and RAUCH, 1999). Here, we engage with the literature on state capacities from a political perspective. We align with Centeno et al. (2017), who argue that state capacity

reservoirs alone are insufficient to generate and elucidate the outcomes of a specific policy sector. They assert that the qualities of the bureaucracy are neutral and mobilized by the political sphere. In other words, states possessing ample state capacities may exhibit unsatisfactory performance if these capacities are not effectively mobilized in the political realm. Moreover, the political sphere has the potential to leverage elevated state capacities to enforce an authoritarian and perverse agenda.

Frequently, the performance of populism, centered on confrontational rhetoric directed at the bureaucracy, extends beyond mere words to actions that undermine state capacities. This occurs through measures such as diminishing the autonomy of bureaucrats and consolidating power centrally (ROCKMAN, 2019). The bureaucracy is also demobilized when the technical knowledge it produces is disregarded, particularly when such knowledge contradicts traditional or dominant ideas (PAPPAS et al., 2009). The demobilization of state capacities has been a recurring theme in the 'third wave of authoritarianism', characterized by radical right-wing populism exemplified by the elections of Bolsonaro in Brazil, Trump in the United States, and Orbán in Hungary. According to Bauer and Becker (2020), this brand of populism is defined by a decline in political pluralism. In this context, the government views society as divided into two opposing factions and chooses one side, consequently limiting diverse voices. Considering that the core principles of public administration are impersonality and impartiality, populist governments frequently channel their efforts into reshaping bureaucracies to conform to their ideologies (BAUER and BECKER, 2020). Moreover, state bureaucracy, particularly that centered on regulation and control, as in the case of the bureaucracy tasked with deforestation oversight, is viewed as an elite that hinders the complete expression of authentic popular will (PETERS and PIERRE, 2019).

Specifically, when elected, populist governments have three approaches regarding public administration: sideline, ignore, or use (BAUER et al., 2021). In this article, we see the bureaucracy being sidelined when it is pushed to the margins in the process of producing and delivering public services. This happens through two simultaneous strategies: either the bureaucracy remains inactive, or its role is weakened due to regulations, budget constraints, and appointments of personnel lacking technical criteria. At the same time, the responsibilities of the

traditional bureaucracy are shifted to parallel structures by appointing allies and engaging bureaucracies considered 'friendly'. 'Using' the bureaucracy can be characterized as activating career technical staff to advance the government's agenda. However, this process relies on a strategy of cooptation, where unconditional alignment with the government's agenda and directives is expected. The populist leader 'ignores' the bureaucracy in situations where the government deliberately chooses not to use the available technical expertise, despite being aware of its existence and relevance in times of need. Ignoring bureaucratic procedures involves neglecting technical opinions and information, as well as leaving key strategic positions vacant (MOYNIHAN, 2021). These three approaches are put into action through strategies to reform public administration, spanning five dimensions: structures, resources, personnel, norms, and accountability (BAUER et al, 2021).

The literature on policy dismantling enables us to gauge the consequences for public administration resulting from the election of a populist government. Dismantling is defined as a specific form of change in public policy that seeks to reduce the outputs of a given policy, either in intensity (understood as the rigor or generosity of a particular policy) or in density (understood as the extent to which a specific public policy is attacked by government actions, with the indicator being the number of instruments and policies applied), which results from the government's reduced commitment to the sector in question (BAUER and KNILL, 2014).

### **Methodological procedures: theorization of the causal mechanism and tests**

To address the research question, we used the process tracing approach – a single-case study method (within-case study) that helps draw detailed inferences about the existence of a causal mechanism connecting a cause to an outcome (BEACH and PEDERSEN, 2016). The causal mechanism is a system of interconnected parts, involving actors in activities, which produces the force from the cause to the outcome (BEACH and PEDERSEN, 2019).

The research's outcome of interest is the increase in illegal deforestation occurring within areas under the federal government's jurisdiction (in federal conservation units and indigenous lands). This research focus is crucial, as it falls within the federal government's purview to monitor illegal activities within these territories. Indeed, Article 23 of the Brazilian Federal Constitution establishes

that the responsibility for deforestation oversight is common to/shared among different federative entities (MOURA, 2016; NEVES, 2012). However, Complementary Law N<sup>o</sup> 140/2011, which interprets Article 23 of the 1988 Federal Constitution in the environmental context, specifies that the responsibility for deforestation oversight lies with the federative entity possessing the authority to authorize vegetation suppression for alternative land use or timber exploitation via sustainable forest management plans. A study conducted by Schmitt and Scardua (2015) reveals that the responsibility for deforestation oversight rests with state environmental agencies in approximately 85.6% of the deforested areas in Brazil. While the federal government can intervene when required or in a complementary role to the states, we are specifically interested in deforestation in areas where oversight is predominantly the responsibility of federal agencies – our research focus is on the federal government.

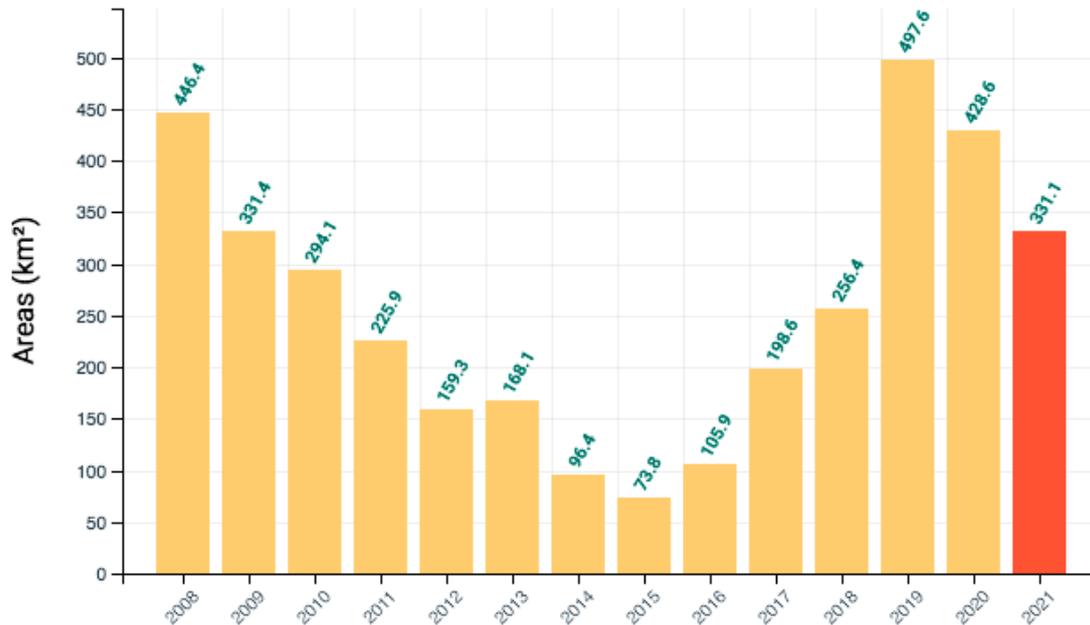
During Jair Bolsonaro's time in office, the annual deforestation rates in the Legal Amazon surpassed the 10,000 km<sup>2</sup> per year threshold, marking a return to a level of destruction not witnessed in over a decade, dating back to 2008 (INPE, 2020). In 2020, the National Institute for Space Research (INPE) recorded 10.9 thousand km<sup>2</sup> of devastated forest areas, significantly surpassing the 3.9 thousand km<sup>2</sup> target established by the National Policy on Climate Change in 2009. In 2020, according to MapBiomass, 99.4% of deforestation in this biome took place without the necessary authorization from environmental agencies, rendering it illegal – in these instances, deforestation manages to evade detection by the deforestation oversight system. Currently, public lands, rather than private ones, are the preferred targets for deforestation. In the last three years, 51% of deforestation in the Amazon occurred in indigenous lands, conservation units, and non-designated public forests (see Figure 01) (ALENCAR et al., 2022; RIBEIRO, 2022).

As detailed in Figures 01 and 02, since 2019, deforestation has reached record levels in indigenous lands and conservation units.

The identified cause behind this increased deforestation is the performance and governing style of radical right-wing populists. Recent research has emphasized the crucial role of political ideology in shaping the implementation of impactful policies concerning climate change (FRAUNE and KNODT, 2018). Moreover, even in its initial phases, certain studies are beginning to establish a connection between the

degradation of environmental indicators and the ascent of radical right-wing populist governments to power (FORTCHTNER, 2019; ZUK and SZULECKI, 2020). This happens due to a series of actions taken by these governments to dismantle or demobilize the reservoirs of state capacities, especially in a context where environmental and climate change policies are largely rejected (FORCHTNER and KØLVRAA, 2015).

**Figure 01.** Evolution of deforestation in indigenous lands in the Legal Amazon



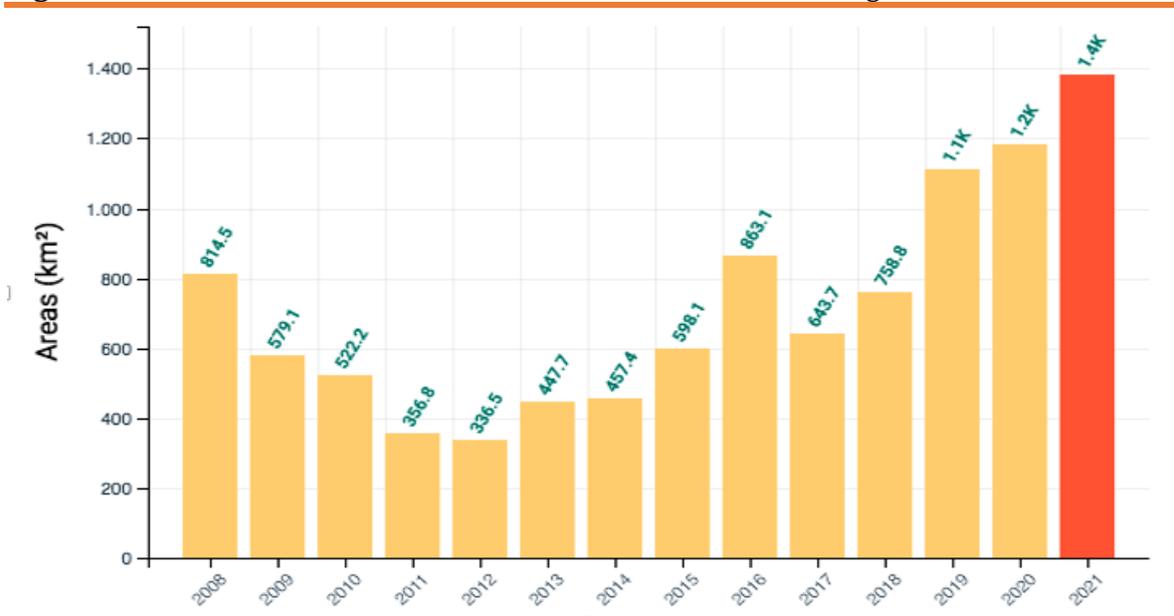
Source: Elaborated by the authors based on data from Inpe (2022)<sup>2</sup>.

It is worth noting that some populist far-right governments advocate for ‘green patriotism’, favoring environmental conservation, especially when it concerns the protection of their homelands (BUZOGÁNY and MOHAMAD-KLOTZBACH, 2022). Therefore, in this study, we consider the following contextual conditions that enable the proposed cause and causal mechanism to function as hypothesized (BEACH and PEDERSEN, 2019, 2016): the presence of an electoral base connected to agribusiness and activities with extensive exploitation of natural resources; and a thriving commodities market characterized by a high demand for increased production from the electoral base involved in resource-intensive activities. In such situations, populist administrations are inclined to take a skeptical approach to the environmental

<sup>2</sup>Graph prepared from the TerraBrasilis database, available at: [http://terrabrasilis.dpi.inpe.br/app/dashboard/deflorestamento/biomes/legal\\_amazon/rates](http://terrabrasilis.dpi.inpe.br/app/dashboard/deflorestamento/biomes/legal_amazon/rates). Accessed on April, 02, 2022.

crisis. They may also dismantle the environmental bureaucracy to ease regulations on productive activities linked to their electoral base.

**Figure 02.** Evolution of deforestation in conservation units in the Legal Amazon



Source: Elaborated by the authors based on data from Inpe (2022)<sup>3</sup>.

In Brazil, according to data from Global Populism – within the Populists in Power project –, Bolsonaro's government (2019-2022) was classified as far-right populist due to the content of his speeches. The polarized narrative of Bolsonaro's government mainly centered around issues of gender, race, and religion (LAYTON et al., 2021). Recent studies indicate that populist rhetoric extends beyond mere discourse, causing harmful impacts on the management of specific policy sectors. This was evident in the case of the disastrous handling of the health crisis triggered by Covid-19, which relied on 'medical populism' (CASARÕES and MAGALHÃES, 2021).

Hochstetler (2021, 2017) asserts that the president of the Republic wields significant influence over the capacities of the environmental bureaucracy. Analyzing the impacts of Bolsonaro's government on climate governance, the author concludes that institutional capacities have been undermined. Menezes and Barbosa Jr.'s study (2021) concludes that under Bolsonaro's authoritarian populist government, environmental governance was centralized, leading to a substantial

<sup>3</sup>Graph prepared from the TerraBrasilis database, available at: [http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal\\_amazon/increments](http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/increments). Accessed on April, 02, 2022.

dismantling that contributed to a rise in deforestation rates. According to the authors, deliberate dismantling is deemed necessary in the context of a "total extractivism" agenda, where "(...) The State must intervene to stop intervening, that is, it has to regulate its own deregulation" (MENEZES and BARBOSA JR., 2021, p. 243). Previous administrations also took steps that undermined environmental governance, including diminishing the state's role in guiding deforestation oversight policies since 2008, dismantling initiatives established from 2004 to 2007 when the Action Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) was implemented, weakening socio-environmental legislation, and disrupting coordination among government agencies. Nevertheless, it is contended that Bolsonaro's government has exceeded others in this regard (CAPOBIANCO, 2021, MENEZES and BARBOSA JR., 2021).

In this study, we will use the process tracing method within the framework of theory-testing. We start by formulating a hypothesis of a causal mechanism, which is developed based on a specific theory (BEACH and PEDERSEN, 2019). Therefore, the method's application aims to test the hypothesized causal mechanism in a typical case where both the cause and the outcome of interest are present. The research underpinning this article proposed a three-part causal mechanism derived from the combined approaches outlined in Section 01 (see Table 01).

**Table 01.** Hypothesis of the causal mechanism

Context: heated commodity market; natural resource-intensive electoral base				
Cause	Part 01: Discourse	Part 02: Dismantling	Part 03: Output	Outcome
Performance and Governing Style of a radical right-wing populist	The populist leader frames environmental oversight within a polarized narrative to engage in populist performance.	Part 2A: The populist leader 'sidelines' the bureaucracy responsible for overseeing deforestation. Part 2B: The populist leader <u>ignores</u> the bureaucracy responsible for overseeing deforestation.	Reduction in the output of the deforestation oversight policy.	Increase in deforestation rates on federally owned lands.

Source: Elaborated by the authors.

In process tracing, each part of the causal mechanism represents a hypothesis requiring testing. The causal mechanism is only validated in a specific case when all its parts are confirmed. After formulating the causal mechanism, the next operational step in the methodology includes determining the prior confidence for each of its parts. This prior confidence represents the degree of certainty in a hypothesis before the collection of evidence, and it is drawn from prior research on the topic or analyses of similar cases (BEACH and PEDERSEN, 2016). If the prior confidence is low, weak tests are sufficient to validate the hypothesis. Subsequently, it is essential to formulate tests (or propositions) for each part of the mechanism, outlining the specific observable manifestations (evidence) that should be identified in the specific case to confirm the hypothesis. Each test should be evaluated for certainty and uniqueness. Tests exhibiting a high level of certainty and low uniqueness (hoop tests) are useful for ruling out hypotheses but have low confirmatory power; tests exhibiting a high level of uniqueness and low certainty (smoking-gun tests) provide strong confirmatory power for the hypothesis, but a failure on such a test does not enable the hypothesis to be refuted. Tests exhibiting a high level of certainty and uniqueness (double-decisive) offer robust confirmatory power, and a failure on such a test enables the hypothesis to be refuted (BEACH and PEDERSEN, 2019, 2016). The article's online Appendix (available at [https:// papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4125350](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4125350)) systematizes the prior confidence for each part of the causal mechanism, their respective tests, and data sources.

The initial part of the causal mechanism is the 'discourse', wherein the populist leader shapes the discourse on deforestation oversight using the familiar polarized and antagonistic logic of populism to maintain mobilization within their electoral base. The prior confidence in this part of the causal mechanism is low, given the scarcity of studies focusing on this theme. Additionally, the few available studies present conflicting results regarding the utilization of environmental issues as a populist strategy for performing populism. However, recent research has indicated that environmental issues are central to the discourse of populist leaders on the far right, who tend to reframe and redefine the terms and basic causalities of this debate (FORCHTNER and KØLVRAA, 2015). Forchtner's (2019) study on the communication strategies of far-right authoritarian leaders concluded that they are more likely to

adopt a skeptical discourse regarding the environmental crisis than politicians from other ideological perspectives. That is partly justified by the fact that these leaders consider climate change deniers as significant segments of their electoral base (KRANGE et al., 2021). Politicians on the far right and their followers are inclined to embrace conspiracy theories and show less readiness to address potential economic adjustments and losses resulting from sustainable measures.

When leaders not only affiliate with the radical right but also can be classified as populists, opposing environmentalism and making promises of 'ecological devastation' serve as a strategy to increase the political influence of these leaders (NEIMARK et al., 2020). While variations exist, some instances of radical right-wing populism have been associated with post-truth discourses, fueling heightened political polarization on climate-related matters (FRAUNE and KNODT, 2018). Thus, Forchtner (2019) argues that the environmental crisis serves as a performance tool for populism, in which "Opposition to climate-change policies enables these actors to present themselves as defenders of the (economic) interest of 'the little guy', as opposing deception by an oppressive, self-interested establishment" (FORCHTNER, 2019, p. 05). In this context, the climate crisis is rejected because it is associated with an elite opposed to national interests, "globalism", "cultural Marxism", and the loss of sovereignty (FORCHTNER and KØLVRAA, 2015; LOCKWOOD, 2018). Moreover, the measures to control the environmental crisis are complex, posing an undesirable challenge. In this context, populists typically embrace a discourse that simplifies environmental issues (LOCKWOOD, 2018).

In Brazil, the need to secure support for Bolsonaro's government substantiates and legitimizes this discourse, drawing primarily from resource-intensive sectors like large rural producers, miners, loggers, and land grabbers. Simultaneously, it involves attacking advocates of environmentalism (MENEZES and BARBOSA JR., 2021). In the words of Menezes and Barbosa Jr. (2021), "Bolsonaro's attacks are not only rhetorical or disinterested but endowed with practical political implications" (MENEZES and BARBOSA JR., 2021, p. 242). Therefore, the initial part of the causal mechanism, the "discourse", gives rise to the subsequent phase, a collection of strategies aimed at "dismantling" public administration. This dismantling is deemed necessary, as public administration is perceived as an obstacle to the political agenda expressed in the populist discourse (DUSSAUGE-LAGUNA, 2021).

To test the first part of the causal mechanism, we formulated four propositions: If the populist leader performs populism through a discourse opposing deforestation oversight, we expect to find in their discourses a narrative that 01. expresses skepticism about the environmental crisis associated with illegal deforestation; 02. links activities to control illegal deforestation with actions by elites and the establishment, fostering polarization; 03. promotes conspiracy theories to explain illegal deforestation and absolve their support base; and 04. defends environmental 'unrestraint' as a means to generate socioeconomic development.

To conduct these tests, 162 live broadcasts by former president Bolsonaro were mapped during the period from March 07, 2019, to March 31, 2022, totaling 110 hours and 38 minutes of raw material for analysis. The live broadcasts, known as 'Thursday lives', were systematically tracked through the president's social media channels, specifically on Facebook and YouTube. The content of these broadcasts was cataloged, with materials related to sporadic statements being excluded from the analysis. The units selected for analysis were chosen based on two criteria: 01. convenience, involving only live broadcasts with transcripts available online, and 02. relevance, encompassing live broadcasts that included at least one of the following terms: 'desmatamento' (deforestation), 'recursos naturais' (natural resources), 'meio ambiente' (environment), 'queimadas' (fires), 'biodiversidade' (biodiversity), 'energia renovável' (renewable energy), 'aquecimento global' (global warming), 'IBAMA', 'Embrapa', 'indígenas' (indigenous people), 'índios' (indians), 'reforma agrária' (agrarian reform), 'MST', 'fundo Amazônia' (Amazon Fund), 'ongs' (NGOs), 'soberania' (sovereignty), 'Amazônia' (Amazon), 'ONU' (UN), 'Nações Unidas' (United Nations), 'terras indígenas' (indigenous land), 'grafeno' (graphene), 'licença ambiental' (environmental license), and 'mineração' (mining). Based on this mapping, a sample of 64 live broadcasts spanning the period from March 07, 2019, to December 31, 2020, was collected. This material was coded using the NVivo software, where the content was categorized into four themes: 01. Test 01: skepticism; 02. Test 02: polarization; 03. Test 03: conspiracy; and 04. Test 04: developmentalism.

In the initial category, we classified phrases with complete meaning expressing skepticism or disbelief about deforestation. This included the presentation of distorted data, suggesting improved control of deforestation rates, minimizing or

denying deforestation issues, and questioning official deforestation data. In the second category, we categorized statements organized around at least two opposing poles, positioned in an antagonistic and conflicting manner within the context of deforestation oversight/control. In the third category, we classified statements attributing deforestation to the covert and dishonest actions of certain actors – who, in reality, are working to protect the environment. In the fourth category, we identified phrases implying or directly stating the need to deforest for the sake of Amazon's progress. This communication is also evident through the promotion of developmental projects for the region.

The second part of the causal mechanism, 'dismantling', is exemplified by two out of the three strategies employed by populist leaders in public administration, as outlined by Bauer et al. (2021): sideline and ignore. In addition to this literature, we draw on discussions on state capacities, which underscore that the effectiveness of the state is contingent not solely on the accumulation of capacities but on how they are mobilized by the political elite (CENTENO et al., 2017). In deforestation oversight, we have identified as essential four reservoirs of state capacities based on Bauer et al.'s (2021) reform strategies (see Section 01): 01. public budget (resources), crucial for financing deforestation oversight operations, including personnel, logistics, materials, and the improvement of information and intelligence instruments; and 02. process of information management and corresponding systems for information and deforestation oversight (structure). Developed and managed by INPE, these systems are crucial in guiding deforestation oversight actions by generating evidence. They produce estimates of annual deforestation rates and nearly real-time alerts on deforestation and environmental degradation using orbital images. Additionally, there is 03. the governing elite of environmental oversight agencies (personnel), responsible for leading enforcement efforts through police power, employing coercion and sanctions to deter environmental crimes and enforce compliance with environmental protection legislation regarding natural resource usage; and 04. regulations endorsed by the federal executive to govern deforestation oversight activities.

The prior confidence in this part of the causal mechanism is strong, given the numerous case studies that have showcased the implementation of these approaches in similar cases (see DUSSAGE-LAGUNA, 2021; MOYNIHAN, 2021; MUNO and

BRICEÑO, 2021). Therefore, to test this part of the causal mechanism, we conducted a series of tests (see online Appendix).

Concerning ‘sidelining’, if it really occurred in the specific case to dismantle the deforestation oversight policy, we expect to discover signs of a decline in the bureaucracy responsible for oversight. This might involve approving regulations that undermine their activities in the field, reallocating budgets, and appointing a less technically skilled leadership. Concurrently, alternative structures and a loyal bureaucracy (such as the military) could be strengthened for a more prominent role in deforestation oversight and monitoring activities.

To examine the appointment patterns within the leadership, we used the Official Gazette of the Federal Government (Diário Oficial da União), concentrating on the timeframe from January 2018 to December 2021. Additionally, we cross-referenced information on the Transparency Website, LinkedIn (where appointees’ profiles are available), Escavador, and news articles from environmental journalism outlets such as O Eco. These sources provided insights into the profiles and professional backgrounds of some high-profile appointees. As for budget information, we used the following data sources: The Integrated System of Financial Administration (Siafi) of the National Treasury, which was accessed through the SigaBrasil platform of the Federal Senate. For information management and systems, we started with three semi-structured interviews to understand the current dynamics of the process and outline the documentary research strategy. We selected 170 official documents, including regulatory acts (decrees, ministerial directives, and resolutions), plans, guidelines, reports, and minutes or records of meetings. The research sources for the documents were the official websites of the corresponding agencies. To search for regulatory acts, we examined the legislation databases for the period from January 01, 2019, to December 31, 2021. These databases offer a compilation of the legislation under study, along with links to the complete content of the norms in the Official Gazette of the Union or on the Palácio do Planalto website. The searched terms were: 01. ‘Desmatamento’ (deforestation); 02. INPE; 03. IBAMA; and 04. CENSIPAM (an acronym for Management and Operational Center for the Protection of the Amazon System).

Additionally, we investigated scientific literature and technical reports. With respect to regulatory acts, we examined administrative actions by the federal government through the database available on the Política por Inteiro website<sup>4</sup>. The time frame for the analysis was from January 01, 2019, to May 03, 2022. A series of categories related to environmental issues were selected, leading to the mapping of 1,338 administrative actions (mostly comprised of ministerial directives, decrees, normative instructions, and resolutions). Out of this total, 361 were related specifically to topics involving the Ministry of the Environment (MMA), IBAMA, and ICMBio. Out of these, only 55 administrative actions were linked to activities related to deforestation oversight.

To confirm that the strategy of ‘ignoring’ the bureaucracy was used, we expect to find evidence that the populist government avoids using information from official agencies to guide the deforestation oversight policy. Additionally, we are looking for signs that crucial leadership positions were left unoccupied. For the initial test, we used secondary data from MAPBIOMAS and IDS, which encompassed all polygons affected by alerts issued by the ‘Real-Time Deforestation Detection System’ (DETER) and those specifically targeted by deforestation oversight efforts. For the second test, we used data from appointed individuals based on the Official Gazette of the Federal Government.

The dismantling of the environmental public administration leads to the third part of the causal mechanism, the ‘output’. We draw on the literature on policy dismantling, which proposes that a decrease in policy outputs serves as both an indicator and a result of the government's withdrawal from a specific domain, indicating a calculated dismantling process (BAUER and KNILL, 2014). To assess this part of the causal mechanism, we used a single strong test (double-decisive): If the hypothesis is correct, we should see a decrease in environmental infraction notices issued by deforestation inspectors. The data for this test were gathered from IBAMA's records by the Observatório do Clima (2022).

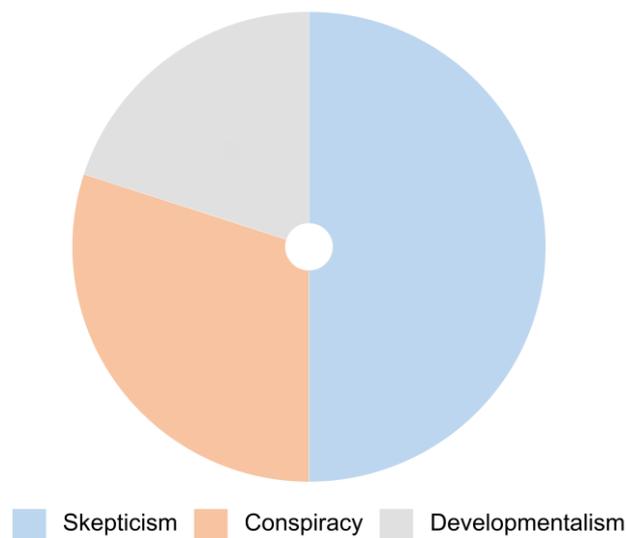
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<sup>4</sup>Available at <<https://www.politicaporinteiro.org/base-de-atos-do-executivo/>>.

## Results and discussion

The analysis of the tests applied to the first part of the causal mechanism (discourse) indicates that the president's speeches encompass all categories associated with the tests. When comparing these categories and their coding frequencies in 2019, 'skepticism' had the highest frequency with five references spread across three months (August, June, and September). Following that, 'conspiracy' occurred three times, and 'developmentalism' twice, both tests in two months (August and April). In 2020, there are 29 coded passages in the 'skepticism' category, followed by 'polarization' with 16 passages, 'conspiracy' with 11 mentions, and 'developmentalism' with 08 references. Analyzing the 22 months of the sample period, it is clear that 'skepticism' appeared most frequently, in 45% of the months. 'Conspiracy' followed at 40%, and both 'polarization' and 'developmentalism' were present in 36% of the months (see Graphs 01 and 02).

**Graph 01.** Frequency of categories in 2019

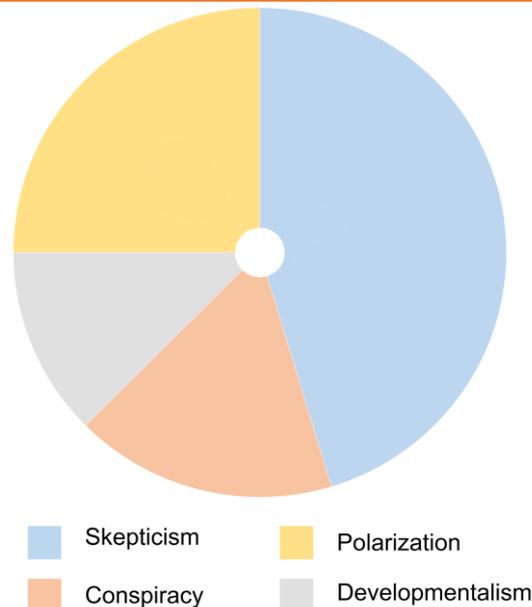


Source: Elaborated by the authors.

Jair Bolsonaro's remarks about fires and deforestation rates in August 2019 serve as an illustration of 'skepticism'. When labeled the 'chainsaw captain' on the front page of O Globo newspaper, the president contended that the publication had presented 'inaccurate' data in that particular context. Former environment

minister Ricardo Salles took part in the live broadcast and asserted that deforestation rates are a result of policies implemented by previous administrations. In the 'skepticism' test, what stands out is how often the president addresses and clarifies the matter of fires in the northern region: In 2020, this test was confirmed 29 times. In 15 of these instances, the president commented on fires. Here are some excerpts illustrating this stance: 'The Amazon is not on fire, nor is it catching fire, it's a big lie'; 'more than 60% of our territory is preserved', and 'another lie, our forest is humid, it doesn't catch fire'. In the 'polarization' category, the president's statements create conflicts between two opposing groups – specifically, 'upright citizens' (government members and individuals supporting economic development) versus environmental regulatory agencies and the international community. Therefore, there are statements objecting to the 'fine industry' specifically targeting the authorities overseeing deforestation: 'The residents of Parintins faced a fine of 120 million reais for cultivating transgenic crops in the area'. In his statements in 2020, the president discussed European nations' efforts to undermine trade with countries lacking environmental preservation, including the potential imposition of economic sanctions on Brazil.

**Graph 02.** Frequency of categories in 2020



Source: Elaborated by the authors.

In the ‘conspiracy’ category, the primary target is the work conducted by the media and environmentalists, which is perceived as an example of activities detrimental to Brazil. In the coded excerpts, one can discern a pattern employed by the president: labeling press reports as fake news. Moreover, he consistently depicts career civil servants of environmental protection agencies as adversaries to the government or members of left-wing parties. Finally, ‘developmentalism’ stands as a key hallmark of Bolsonaro’s government, and this test is confirmed in numerous statements, as exemplified in the following excerpt: ‘We are paving the Amazon; this year, we will deliver another 112 kilometers of asphalt’. Moreover, the president's remarks link developmentalism in the Amazon with the preservation of sovereignty, asserting that an economic plan for the region is essential to prevent other countries from invading and occupying the forest.

Tests for the second part of the causal mechanism (dismantling) focused on the central agencies responsible for implementing the deforestation oversight policy. This implementation process involves the Directorate of Environmental Protection (DIPRO) within IBAMA, the Directorate of Creation and Management of Conservation Units (DIMAN) at ICMBio, and the state superintendencies of IBAMA. DIPRO is tasked with coordinating, overseeing, and executing federal actions related to environmental oversight and emergencies (BRAZIL, 2020, 2019, 2017). The organizational structure of the directorate has stayed the same since 2017, with the General Coordination of Environmental Oversight (CGFIS) being responsible for carrying out environmental oversight activities. In turn, DIMAN plays a role in environmental oversight in conservation units, with dedicated entities for this purpose falling under the purview of the General Coordination of Protection (CGPRO) and the Oversight Coordination (Brazil/ICMBio, 2021). Finally, the state superintendencies are part of the central structure of IBAMA as decentralized entities. They are responsible for taking action, operationalizing, and supporting environmental oversight efforts. Ministerial Directive N<sup>o</sup> 2,542, dated October 23, 2020, assigned the state superintendencies the responsibility for analyzing and approving processes related to the sustainable use of fauna and flora. This new directive gave significant authority to the designated leaders of the state superintendencies. Apart from the efforts of the agencies associated with the Ministry of the Environment, the role played

by INPE, under the jurisdiction of the Ministry of Science and Technology (MCTI), is crucial for executing the policy. INPE is responsible for monitoring deforestation, thereby guiding the actions of inspectors.

The tests concerning the sidelining of the bureaucracy tasked with overseeing and monitoring deforestation were approved (see the online Appendix). This was achieved through a twofold strategy: weakening these agencies and shifting responsibilities to parallel structures and loyal bureaucracies, particularly the military.

The first strategy for sidelining the bureaucracy involved the budget. In 2019, when Bolsonaro assumed office, the federal budget had already been approved by the National Congress. The allocated budget for combating deforestation amounted to authorized expenditures of R\$ 570 million, adjusted for inflation. In the following year, the budget for environmental agencies combating deforestation dropped to R\$ 211 million, a 63% decrease, according to National Treasury data. It is worth noting that satellite monitoring by INPE had already indicated increases in deforestation rates during that period. Simultaneously, military spending for the same purpose increased. In 2020, the Ministry of Defense (MD) received R\$ 661 million for Operation Green Brazil 2, aimed at combating illegal activities in the Amazon under an instrument known as Guarantee of Law and Order (GLO). This amounts to over three times the authorized budget for environmental agencies (IBAMA and ICMBio) and INPE. In 2021, the sidelining of the environmental bureaucracy through fund reallocation slowed down. After the Climate Summit organized by the newly inaugurated president of the United States, Joe Biden, and facing external pressures concerning the rise in Amazon deforestation, the government partially reinstated funds for efforts by civilians to combat deforestation, amounting to R\$ 407.5 million.

In addition to cutting resources from the official monitoring framework and redirecting them to less relevant structures, and despite the rising deforestation rates, the government reduced funding for monitoring deforestation and fires using satellite images from INPE – another action to establish an alternative system for monitoring deforestation. The approved budget for monitoring decreased from R\$ 4 million in 2019 to R\$ 2.9 million in 2021, accounting for inflation adjustments. In 2013, R\$ 11 million was allocated to INPE for the same purpose. In addition to cutting funds for INPE, the government at the end of 2020 earmarked R\$ 179 million – nearly 50 times INPE's annual budget for that year – for the non-competitive acquisition of a

Finnish satellite featuring an X-band radar sensor (not suitable for monitoring dense forests) from Iceye Oy. By April 2022, R\$39 million of this sum had already been disbursed.

Further evidence comes from the Federal Police Department, which enlisted the services of Santiago & Cintra Consultoria Ltda (SCCON) to obtain orbital images from satellites operated by the American company Planet Labs Inc.. The R\$ 49 million contract is designed to facilitate access to these images for one year, aiding in the monitoring of deforestation and fires. This support contributes to the 'Guardians of the Biome' Operation, coordinated by the Ministry of Justice and Public Security (MJSP). Moreover, the company was hired without a bidding process under the argument of 'service exclusivity', according to preliminary study N° 15716020/2020-SEGEO/INC/DITEC/PF (SEI N° 08201.001239/2019-61). Investments in strategies for producing deforestation information are significantly ineffective and inefficient when they do not take into account the systems and expertise of INPE. First, INPE has the expertise and infrastructure to create its own radar satellite; all that is needed is the proper allocation of resources. Secondly, when it comes to monitoring deforestation and fires, the systems used by INPE offer information of higher quality compared to those generated by Planet Labs Inc. Additionally, they come with lower costs, as we will further elaborate.

The second sidelining strategy involved changes in regulations. Among the 55 administrative measures associated with deforestation oversight, 37 were recognized as weakening measures, 11 as reinforcing measures, and 06 as stabilizing measures. Many of the administrative actions categorized as weakening measures involve transferring responsibilities to different entities, particularly the Armed Forces, in deforestation oversight activities (Decree N° 9,985, dated August 23, 2019). Moreover, several regulatory acts were initiated to set up a conciliation department for handling environmental fines within IBAMA through Ministerial Directive N° 2,864, dated August 07, 2019. This measure has led to an accumulation of proceedings necessary for holding conciliation hearings. Another change was the inversion between the drafting and the inspection report through Joint Normative Instruction MMA/IBAMA/ICMBio N° 01, dated April 12, 2021. According to this piece of regulation, the procedure involves the inspector first preparing an inspection report

for their superiors and then, subsequently, drafting the violation notice on-site for the offender. This regulation also imposes impractical timelines for the various stages of the process, considering that, usually, there is a 05-day deadline for each stage. Furthermore, it has introduced uncertainties regarding the hierarchically superior authority in the process of issuing fines. The amendment mandated that the report be approved and authorized by the hierarchically superior authority to proceed with the sanctioning process for environmental crimes. However, the norm did not explicitly clarify who held this position of authority in various contexts.

The third sidelining strategy involved making appointments to deforestation oversight positions in the federal environmental bureaucracy. We examined the profiles of individuals in roles such as directors (DAS 5), general coordinators (DAS 4), and other technically oriented positions (DAS 3, 2, and 1) in DIPRO, DIMAN, and the superintendencies of IBAMA in the Legal Amazon. For the superintendencies, only the positions of superintendents (DAS 4) were analyzed. From the beginning of Jair Bolsonaro's administration until the first semester of 2022, DIPRO was successively led by two military police officers and one army officer (DAS 5), meaning 100% of DIPRO directors had a military background. Despite lacking prior experience in environmental oversight or in the Amazon region, all individuals are currently under investigation by the Federal Police for their alleged participation in a criminal scheme facilitating the smuggling of illegally extracted timber in the Amazon. This investigation includes former Minister of the Environment Ricardo Salles.

Among the four individuals who assumed a DAS 4 position in the General Coordination of Environmental Oversight within DIPRO, three had military backgrounds, and only one possessed technical training and prior experience in the environmental field, although not specifically in oversight activities. The individual in the latter position was dismissed in April 2020 and was succeeded by three other military officials who alternated in the role: two officers from the military police of São Paulo, lacking prior training or experience in the field, and lastly, a retired Army colonel who had previously served as a regional coordinator for the National Indian Foundation in Passo Fundo, Rio Grande do Sul. However, the colonel also lacks both training and prior experience in the field of environmental oversight.

Military personnel without prior experience in the field or in the Amazon region filled other technical positions (DAS 03, 02, and 01) (21%), crucial to oversee

the environment and combat deforestation within this directorate – nevertheless, most technical positions were occupied by public servants possessing expertise in oversight (57%). However, their responsibilities were reduced, or their ability to work was impaired. For instance, the coordinator of environmental oversight operations and the individual responsible for operations against environmental crimes in Brazil were both dismissed after conducting operations against illegal mining in indigenous lands<sup>5</sup>.

During the Bolsonaro administration, military police officers and members of the Armed Forces came to dominate IBAMA superintendencies<sup>6</sup> in the different states within the Legal Amazon<sup>7</sup>, making up 45% of the total superintendents. In general, these military personnel lack experience in environmental agencies and the Amazon region. Certain superintendents, comprising 37% of the total, are not affiliated with the military or IBAMA. They maintain professional connections deemed crucial to their effectiveness in the environmental sector. Notably, in states like Roraima and Acre, these superintendents have affiliations with consulting firms specializing in environmental licensing and the nullification of environmental fines, respectively.

DIMAN/ICMBio experienced less significant government intervention. Overall, 67% of DIMAN directors (DAS 5) were military personnel, with 25% of them serving as general coordinators (DAS 4), and only 3% of military personnel taking on technical roles within the directorate (DAS 3, 2, and 1). However, out of the three directors who took on the leadership role, two were military police officers with expertise in environmental policing in the state of São Paulo, but lacked experience in oversight, particularly in the Amazon, where environmental crimes are more prevalent and severe. This profile was also identified in the roles of Oversight Coordination and General Coordination of Protection at DIMAN.

In summary, strategies to sideline the bureaucracy through the governing elite involved appointing military police officers, businesspeople, and lawyers who lacked

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<sup>5</sup>Source: available at <<https://g1.globo.com/natureza/noticia/2020/04/30/governo-exonera-chefes-de-fiscalizacao-do-ibama-apos-operacoes-contragarimpos-ilegais.ghtml>>. Accessed Mai, 24, 2022.

<sup>6</sup>In each Brazilian state, there is a representation of IBAMA headed by its superintendent.

<sup>7</sup>There are nine states in the Brazilian Legal Amazon: Amazonas, Amapá, Acre, Roraima, Rondônia, Pará, Tocantins, Maranhão and Mato Grosso.

prior experience and relevant education in the environmental field. High turnover and institutional instability undermined the continuity of established government programs. In addition, experienced career officials were replaced by inexperienced individuals, leading other staff members to submit resignation requests in protest.

A fourth sidelining strategy involved monitoring structures. Centralization within structures aligned with the government, especially the military, was underway. Simultaneously, established organizations like INPE and IBAMA saw their roles weakened through 01. the creation of new structures, such as the National Council of the Legal Amazon (CNAL) under Decree N<sup>o</sup> 10.239/2020 and the Integration Group for the Protection of the Amazon (GIPAM); and 02. the redistribution of power to entities and agencies more aligned with the new leadership (Ministry of Defense – MD, CENSIPAM, Ministry of Justice and Public Security – MJSP), either through resource allocation or the assignment of responsibilities (Decree N<sup>o</sup> 9.985/2019, Decree N<sup>o</sup> 10.341/2020, and GM-MD Ministerial Directive N<sup>o</sup> 1.324/2022).

The CNAL shifted the primary responsibility for information related to satellite imaging and oversight systems on deforestation to the Ministry of Defense and CENSIPAM. Initially, via Ministerial Directive N<sup>o</sup> 48, dated April 17, 2020, the CNAL established the Subcommission for Integration of Systems, which is tasked with systematizing and integrating territorial oversight systems and intelligent alerts, aiming to theoretically unify methodologies for detecting deforestation, fires, degradation, and other illegal practices. Following that, under Ministerial Directive N<sup>o</sup> 49, also dated April 17, the CNAL appointed the ministry of defense as the coordinator of the Subcommission. It selected representatives, both the incumbent and alternate, from CENSIPAM to participate in this initiative. Additionally, in the 2021/2022 Amazon Plan, approved by Resolution N<sup>o</sup> 03, dated April 09, 2021, the responsibility for providing information from satellite imaging and monitoring systems on deforestation was assigned to CENSIPAM. In theory, INPE should handle this responsibility since it is the agency in charge of data production and processing.

Similarly, the 2020-2023 National Plan for the Control of Illegal Deforestation and Recovery of Native Vegetation, which replaced the PPCDAm, along with its 2020-2023 Operational Plan, assigns significant responsibilities to the Ministry of Defense and CENSIPAM. This includes securing a position on the Executive Commission for the Control of Illegal Deforestation and Recovery of Native Vegetation

(CONAVEG), at the expense of INPE, which had played a leading role in these actions in previous plans and strategies<sup>8</sup>.

Another important aspect is the stricter and more controlled dissemination of INPE's data, with clear hierarchical control. Interviewees indicated no formal institutional change, a finding confirmed through the analysis of regulatory acts. However, the process became more centralized. Previously, the relationship between technical areas was more fluid, and there was a more open and cross-cutting dialogue between agencies and sectors. Control has shifted to a hierarchical structure, where the technical area generates information and sends it to higher instances through the Electronic Information System (SEI). From then on, the technical area no longer has access to the case, and it subsequently circulates among authorities within INPE and the Ministry of Science, Technology, and Innovation. They establish the dates and methods for publication.

For instance, in 2021, for the first time, the report containing the estimated deforestation rate in the Brazilian Legal Amazon was not released before or during the Conference of the Parties (COP26) that year. The 2021 PRODES<sup>9</sup> report, which indicated an estimated 13,235 km<sup>2</sup> of deforested area, representing a 22% increase compared to the previous year, was concluded one week before COP26. However, both the Ministry of Science, Technology, and Innovation and the government, in general, chose not to disclose or present the data during the event. Likewise, the report detailing the estimated deforestation rate for the Cerrado biome, PRODES-Cerrado, was concluded in the first week of December 2021 but was only made public on the last day of the month. In the interviews we conducted, it was mentioned that 'Any disclosure requires approval from the Secretary of Communication of the MCTI, Christiane Gonçalves Corrêa'. According to the information provided by interviewees, the Ministry of Science, Technology, and Innovation controls the information generated by INPE and its processing across other government agencies. CENSIPAM has taken on a prominent role in the process, as it has become the focal point for processing and

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<sup>8</sup>The PPCDam base document: context and data analysis; PPCDam and PPCerrado: phase 2016-2020; PPCDam Operational Plan: 2016-2020; PPCerrado Operational Plan: 2016-2020.

<sup>9</sup>Acronym for Project for Remote Deforestation Monitoring in the Legal Amazon.

disseminating deforestation information produced by INPE within decision-making instances, especially in the CNAL and CONAVEG.

In addition to diminishing INPE's influence, there was an effort to shift the production of deforestation data to other entities, both public and private, excluding INPE from the process. Even before taking office, President Jair Bolsonaro and former Minister of the Environment Ricardo Salles criticized and contested INPE's data. After Bolsonaro's election, this discourse turned into multiple strategies for reallocating INPE's activities to other structures. In November 2019, the Federal Police, specifically through its Technical-Scientific Directorate (DITEC/PF), initiated the Brazil M.A.I.S.<sup>10</sup> Project. In February 2020, the project was introduced to the vice president, who also presides over the CNAL. He designated the project as a top-priority initiative, resulting in the hiring of SCCON to provide imagery from satellites operated by Planet Labs Inc., as previously mentioned. The purchase is questionable for three reasons: 01. INPE had warned that its systems provided the necessary information for monitoring deforestation and fires; 02. studies indicate that this technology is less effective than that already used by INPE and IBAMA (such as the DETER-B system) (MONTEIRO et al., 2020); and 03. in September 2020, the government of Norway, through its Ministry of Climate and Environment, signed an international contract with Kongsberg Satellite Services, along with the companies Planet and Airbus, to provide universal and free access to satellite monitoring of tropical forests worldwide (PLANET LABS INC., 2020).

Concurrently, the Ministry of Defense acquired a satellite from Finland to monitor deforestation. The rationale behind this was to enhance Amazon protection by complementing DETER. The Finish radar satellite operates in the X-band, which, according to INPE, is not suitable for monitoring the Amazon (VALENTE, 2021). As previously mentioned, a potentially more appropriate strategy could involve allocating resources to enable INPE to develop more suitable technologies.

The tests regarding ignoring the bureaucracy were approved. The strategies for ignoring the bureaucracy included delaying and/or not appointing personnel to crucial positions responsible for overseeing and controlling deforestation. In DIPRO, the roles for the Coordination of Inspection Intelligence have been unfilled since August 20, 2021, and the positions within the Coordination of Inspection Control and

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<sup>10</sup>Acronym for Integrated and Secure Environment.

Logistics have been vacant since December 10, 2021. Previously, individuals without prior experience with oversight, closely aligned with Jair Bolsonaro's political agenda, held these positions. Moreover, three other crucial positions for environmental oversight operations were left without representatives for two to five months, namely: Head of the National Center for Preservation and Combating Forest Fires; General Coordination of Environmental Oversight; and Head of the Division of Operational Support for Oversight. In contrast, in DIMAN, the positions were filled promptly. After each dismissal, a new appointment swiftly followed, except for the chief position in the Division of Monitoring and Evaluation of the Management of Conservation Units, which remained unfilled for over six months. This role is crucial for supporting inspections and combating deforestation in conservation units. Not appointing IBAMA superintendents in certain states was also a method of dismantling, leaving key positions without leaders. In the superintendencies, 18.5% of positions remained vacant for more than two months between 2018 and 2021. Presently, there are vacant positions, as is the case in Acre.

Another strategy to ignore the bureaucracy involved parts of the information and monitoring system. The interviews at INPE indicated no interference in the technical department concerning the methodology for measuring and producing information. However, according to MAPBIOMAS (MAPBIOMAS ALERTA, 2021) and IDS data, IBAMA's embargoes and environmental fines until April 2021 affected 01. only 2% of the total polygons identified by DETER alerts and 02. less than 03% of the deforested area reported from 2018 to April 2021. This suggests that deforestation alerts were disregarded as a guiding tool for the deforestation oversight policy. The DETER system ceased to fulfill its original purpose of supporting deforestation oversight actions.

With respect to the third section of the causal mechanism, the examined data supports the approval of the test. The average number of charges for crimes against the flora over the three years of Bolsonaro's government in the nine states of the Legal Amazon was 2,963. This represents a 39% decrease compared to the average of the decade preceding Bolsonaro's administration, occurring against the backdrop of a notable rise in deforestation (OBSERVATÓRIO DO CLIMA, 2021).

## Conclusion

This article contributes to current discussions about the impact of the rise of populist leaders on public administration. The study's central question is: How did the performance and governing style of radical right-wing populism contribute to the rise in illegal deforestation in the Brazilian Amazon? To do so, we hypothesized and tested a three-part causal mechanism. In process tracing, the prior confidence in a causal mechanism is refined by employing relevant tests and relying on valid, reliable sources (BEACH and PEDERSEN, 2019, 2016). Every part of the causal mechanism (hypotheses) was supported by multiple sources and a blend of different tests, leading to a high posterior confidence in the causal mechanism we developed (for more details, refer to the online Appendix at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4125350](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4125350)). Hence, electing a populist leader to office expedited deforestation in the context of escalating commodity prices and an electoral base reliant on natural resources. This occurred within a causal mechanism in which a discourse critical of the notion that there is a deforestation crisis was transformed into actions that dismantled the bureaucracy overseeing and monitoring deforestation. These practices, marked by sidelining and ignoring the bureaucracy, resulted in a reduction of the policy's outputs.

This article's case shows similarities and differences with other countries' populist governments. Similar to the Trump administration in the United States, we note that significant strategies to sideline the bureaucracy included appointments and changes in regulations (MOYNIHAN, 2021). Much like the Obrador administration in Mexico, the budget played a vital role in undermining specific bureaucracies. Furthermore, parallel administrative structures closely tied to the president were established (DUSSAGE-LAGUNA, 2021). Lastly, the robust militarization of governance and policy formulation in Venezuela was similarly noted in the Brazilian case under study (MUNO and BRICEÑO, 2021). As for the differences, in contrast to the Italian context, where alterations in public administration were not as noticeable as in the realm of discourse (DI MASCIO et al., 2021), the changes in public administration in the studied case were just as radical as those expressed in discourse.

This article's findings align with and support recent research on state capacities and performance, emphasizing that the effectiveness of state actions relies on both the existing capacities and political mobilization (see CENTENO et al., 2017). In the examined case, it is evident that the political sphere played a role in dismantling

state capacity reservoirs related to budget, personnel, norms, information structure, and monitoring. This contributed to the unsatisfactory performance of the policy for controlling deforestation via oversight efforts.

This article has some limitations. The main limitation is the inability to generalize since process tracing was applied from the perspective of singularity rather than regularity. Therefore, essential procedures for facilitating specific narrow-range generalizations were omitted, such as mapping a homogeneous population of cases. Another limitation is the lack of analysis of how the bureaucracy responds to dismantling strategies, a crucial aspect in Bauer et al's. (2021) model.

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