

## Brazil at COP26: Political and Scientific Disputes Under a Post-Truth Government

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### Abstract

Global climate negotiations were again in the spotlight at Glasgow's COP26 meeting in November 2021, drawing attention to the urgency of the climate crisis and to the need to find long term solutions. While Brazil has been a protagonist of such negotiations for decades, since 2019 the country has abdicated its leadership role, adopting a reactive stance to the environmental agenda. This shift is illustrative of the centrality of scientific disputes in government projects in conflict in Brazil. Since the election of Jair Bolsonaro, attacks on science have gained strength and institutionalized a position largely critical to existing scientific consensus about climate and the environment in the government. Together with the dismantling of Brazil's environmental regulations—put in place also by the Bolsonaro government—those attacks on science have strained both its local capacities to curb deforestation (the source of most of the country's emissions) and deepened inequalities and injustices ingrained in Brazilian society. In summary, we argue that STS can participate in finding a way out of the current political and social crisis and resisting the dismantling of a once robust environmental governance framework by unpacking the centrality of scientific production in disputes over climate and the environment.

### Keywords

COP26; Brasil; Brazil; climate change; post-truth; environmental justice

### Introduction

The twenty-sixth United Nations Climate Change Conference of Parties (COP26), held in Glasgow, Scotland, November 1–12, 2021, was in the global spotlight. It brought together scientists, political leaders, social movements, and media from around the globe to discuss climate change and to negotiate more sustainable futures. Although the outcome of the negotiations was largely disappointing for those concerned about the urgency of the climate crisis ([Masood and Tollefson 2021](#)), many also saw negotiations making some steps towards reducing emissions, deforestation and pledges to invest in cleaner energies. In some ways, the meeting helped consolidate the urgency of the climate crisis in the global political arena.

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**To cite this article:** Fleury, Lorena, Marko Monteiro, and Tiago Duarte. 2022. "Brazil at COP26: Political and Scientific Disputes Under a Post-Truth Government." *Engaging Science, Technology, and Society* 8(3): 107–117. <https://doi.org/10.17351/ests2022.1381>.

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Brazil, which traditionally held a prominent position in the COPs, was largely marginalized and perceived with mistrust ([Andreoni 2021](#)) this time around. This reflects both the dismantling ([Barbosa, Alves, and Grelle 2021](#); [Miguel 2022](#)) of Brazilian environmental policies since Bolsonaro's election in 2018, but also a broader social and political crisis brought on by changes associated with the current elected government: a so-called "anti-globalist" stance ([Casarões and Femes 2019](#); [Casarões and Farias 2021](#)) became a central organizing principle of Brazil's diplomatic agenda, in line with the Bolsonaroist right-wing culture wars and wars on science, movements which cannot be disassociated from each other and from changes in policy in general. In this paper, we reflect on the Brazilian anti-environmental agenda under the Bolsonaro government and argue that it can be connected to current debates in STS, especially on post-truth. This example also has the potential to bring to light a new research agenda for the field, linking state-led attacks on scientific consensus to environmental injustice also fostered by state institutions.

### **Brazil: Climate Negotiations and Internal Policies**

Brazil's former leadership position in international climate negotiations, defending interests of the Global South ([Viola 2002](#); [Williams 2005](#); [Rajão and Duarte 2018](#); [Franchini, Evangelista Mauad, and Viola 2020](#)), quickly deteriorated since 2019. Brazilian leaders have engaged in both rhetorical attacks on environmental and indigenous rights and an effective dismantling of Brazil's environmental governance structure, through defunding and devaluing institutions responsible for the policing of environmental crimes ([Barbosa, Alves, and Grelle 2021](#)). Bolsonaro's election was also associated with a sharp rise in anti-science and anti-intellectual sentiments in the country, which included a "moral panic" with the country's research universities ([Redden 2019](#)) and sustained critique of a "leftist" plot ([Watts 2018](#)) to subvert traditional values.

This critique of science was felt at the heart of Brazil's system of environmental regulations, questioning technical reports required for development initiatives and the country's deforestation monitoring systems ([Monteiro 2020](#); [Pelicice and Castello 2021](#)) and associating environmentalism and foreign interference in Brazil's sovereignty. Furthermore, the government backed several anti-environmental and anti-indigenous rights bills in congress. An example of this is the so-called "General Environmental Licensing Law" ([Machado and Doederlein 2021](#)) which proposes to exempt several economic activities from environmental licensing as well as qualifying others for an automatic process based on a self-declaration of enforcement of environmental conditions. A study carried out by key experts on the topic concluded that such a bill would increase deforestation-related emissions ([Oviedo et al. 2021](#)), in contrast to official discourse that the Amazon remains largely untouched since 1500 ([Rigue 2021](#)).

### **Deforestation and Climate Policy in Brazil**

The combination of sharp critiques of scientific consensus around climate and deforestation and an anti-environmental agenda in Bolsonaro's presidency can be further understood by examining his government's dismantling of anti-deforestation policies in the country. Brazil's emission profile, in which land use change plays a predominant role, makes deforestation a central issue for the country in climate negotiations (see [figure 1](#)). Therefore, policies to combat deforestation are central to the commitments of different governments to climate action and to the reduction of emissions ([Aamodt 2018](#)). According to The

Greenhouse Gas Emission and Removal Estimating System (SEEG), since 1990 land use change and deforestation have consistently been the main sectors responsible for the emission of greenhouse gasses in Brazil (SEEG 2022). Although the emission levels were never low, in the period between 2003 and 2012 they were significantly reduced. This reduction, based on robust monitoring of deforestation by INPE (Brazil's National Institute for Space Research), in association with swift action by IBAMA, the Brazilian Institute of the Environment and Renewable Natural Resources (led by the Ministry of Environment) which enforced environmental law, guaranteed Brazil's position in international negotiations and backed up pledges made by the country.

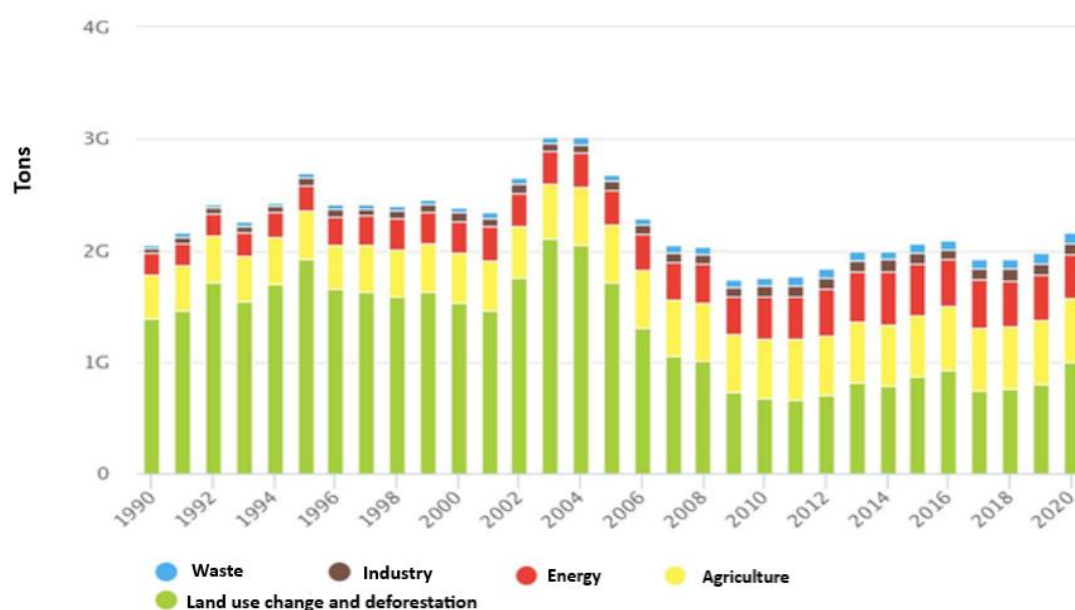


Figure 1: Brazilian greenhouse gas emissions (CO<sub>2</sub>e (t) GWP-AR5) by sector, 1990–2020 (Source SEEG 2022).

Research has shown that this reduction was made possible in the past because of the action of a “climate coalition” made up of activists from non-governmental organizations (NGOs), climate scientists, politicians, and government officials. In the early 2000s this coalition “worked both domestically and internationally to establish the link between deforestation and climate” (Aamodt 2018) leading to the effective reduction of deforestation (de Carvalho 2010; Hochstetler and Keck 2007; Hochstetler and Viola 2012; Viola and Franchini 2014). As some have also argued (Monteiro et al. 2014), the debate on deforestation has been crucial in disputes involving science, development, and the environment in the Brazilian Amazon. After the election of Bolsonaro and his declared anti-environmentalist agenda, however, these tensions were severed, directly compromising the efforts of the climate coalition.

### Brazilian Science Under Attack

Brazilian scientific capacity has been central to the once successful efforts to reduce and control deforestation rates (Boucher, Roquemore, and Fitzhugh 2013; Rajão and Hayes 2009). But it is this same

capacity which is being attacked, alongside the current wave of anti-intellectualism in Brazil. ([Diele-Viegas, Hipólito, and Ferrante 2021](#)). Many authors have been denouncing the sustained attack on science in Brazil under Bolsonaro ([Monteiro 2020](#); [Duarte 2020](#); [Hallal 2021](#)). Not surprisingly, deforestation monitoring was one of the first victims of such attacks: Ricardo Galvão, former Director of INPE, famously resigned in 2019 over a public dispute with Bolsonaro, who accused the Institute of lying and working for foreign interests ([Tollefson 2019](#); [Escobar 2019](#)). In 2019, Galvão was later named by the respected journal *Nature* one of the ten people who mattered in global science ([Tollefson et al. 2019](#)), that however did not stop the then Environment Minister, Ricardo Salles, and the Federal government (in general) alienating allies. For instance, Norway and Germany withdrew funding from the Amazon Fund. At that time, the consistent dismantling of the Brazilian environmental regulatory system was being recognized internationally.

Salles was later replaced, accused of obstructing investigations of illegal logging in the Amazon ([Marcelo and Spring 2021](#)), but the anti-environmental bias of Brazilian federal policy continued. Brazil's participation in COP26 was marked by diplomatic blunders, starting with Bolsonaro's choice to visit Italy. Bolsonaro was mingling with the mayor of a small city in Northern Italy (from where his descendants emigrated to Brazil in 1870) and skipped the conference ([Chade 2021](#)), ending with the perception that Brazil had hidden an increase in deforestation numbers until after the conference, again marginalizing INPE's highly respected measurements which were consolidated as a relevant part in Brazil's pledges to reduce emissions.

The yearly rate of deforestation in the Amazon detected by INPE in 2021 indicates an increase of 21.97 percent in relation to 2020 ([INPE 2021](#)). Contrary to the tradition of releasing the numbers during the COP meetings, the rates were released only after the 2021 event was over, raising doubts about Brazil's intentions and accusations of lying about deforestation. Because the INPE document was dated October 27, 2021, thus preceding COP26, some suggested an intentional withholding of information by Brazilian officials, configuring what climate activists considered a "double scandal," given the severity of the picture which was shown by the numbers (i.e., a spike in deforestation) and the break with the established practice of reporting official numbers before the event ([Dantas 2021](#)). The attempts made by scientists and activists at turning the country's image around failed, both domestically and abroad ([Passarinho 2021](#)). And the situation has only worsened. Since then, the monthly deforestation numbers from INPE show a historical record of over 1000 km<sup>2</sup> for April 2022, indicating little has changed since 2021 ([Watanabe 2022](#)).

Brazil's diplomatic performance at COP 26 helps illustrate broader trends in how science and expertise have been unable to participate in policy-making in Brazil in recent years. As current STS analyses have shown, there is a very broad malaise with the place of expertise in decision-making, with debates on the topic raging on for decades. An interesting contemporary marker was the 2002 paper on a "third wave" of STS, which placed this topic at the center of discussions ([Collins and Evans 2002](#)), and helped fuel debates on the role of STS in both reconstructing a place for science in democracy and being a potential part of the emergence of a post-truth order ([Fuller 2017](#)). Debates on post-truth became more central to STS as politics in the global North embraced figures such as Donald Trump in the US and Boris Johnson in the UK, as Brexit helped to shake up the European Union ([ibid.](#); [Sismondo 2017](#)).

But in places like Brazil, the effects of a global crisis of science in democracy were felt in a much deeper way. In Brazil for example, this can be traced to historically weakened democratic traditions, but also to a longstanding friction between a relatively robust system of expertise produced by state-institutions and preexisting critiques towards environmental governance, including a resentment towards indigenous rights (perceived by some elites as taking land away from rural producers) and environmental laws (which some groups also see as impeding economic growth). And not coincidentally, climate change and deforestation knowledge are central loci of interest to post-truth praxis. The subversion of expertise through the production of fake knowledge has been documented ([Rajão et al. 2022](#); [Oliveira and Siqueira 2022](#)), and some point to a convergence of neoliberal politics and digital populism to understand Brazil's current crisis of truth production ([Cesarino 2021](#)).

### Post-Truth Government and Environmental Injustice

Although the Brazilian delegation made efforts at COP26 to improve the country's international reputation, there was little hope that during Bolsonaro's administration any significant effort to mitigate the climate crisis would be done. The post-truth politics carried out by the government, i.e., a combination of state-led critique of science and state-fostered anti-environmental attitudes, left little room for any hope of a change of course that could result in reductions in greenhouse gas emissions. In relation to environmental justice, the situation in the country was particularly dire. There were concerted efforts from Bolsonaro's administration and representatives of the agribusiness in the congress to not only weaken environmental protection but also to withdraw rights from indigenous populations, as attested by the bills of "General Environmental Licensing Law" (PL 2159/2021), and land regularization (PL 510/21), under debate in the Federal Senate, and the new mining code discussed in the National Congress. This recently became dramatically clear when yet another environmental leader was murdered in Brazil, showing the effects of increasing absence of state efforts to effectively manage environmental crimes in the Amazon region ([Anderson 2022](#)).

The result is a continued sharp increase in deforestation and in economic activities deleterious to the environment—like illegal mining—which will be particularly detrimental to indigenous people who depend on the Amazon forest for their subsistence. Powerful agribusiness landowners in turn will at least in the short-term benefit economically. Thus, the populations that most suffered under European colonialism continue to be under attack with the Bolsonaro government continuing to worsen their situation while economic elites continue to prosper. It is also well known that the climate crisis will have worse effects on minorities such as indigenous populations. It only makes things worse that the very production of the climate crisis is based on the deepening of the gap between economic elites and native people.

This points to a phenomenon that has so far been mostly overlooked in STS: the literature on environmental justice has focused on how experts may contribute to deepening injustices by producing knowledge that serves the interests of private companies while harming subaltern communities ([Ottinger 2013](#); [Williams and Moore 2019](#)). This has led to calls for counter-expertise that generates knowledge, or as Hess ([2015](#)) would put it, produces undone science to support the fight of those communities against powerful actors. This is an important literature that has brought to light groundbreaking insights on the relations between

experts and policymaking. The situation in Brazil under Bolsonaro's government, however, indicates that environmental injustice should not only be linked to the work of certain groups of experts, but also to governments that systematically overlook experts' advice and help produce and spread misinformation (Ricard and Medeiros 2020). As such, in certain cases injustice is not fought only by leveling the epistemic field so that traditional knowledge, lay expertise, and so on, can also have a say in politics, but also by guaranteeing that scientific experts are not outrightly ignored in policy decisions. In this sense, by analyzing the Brazilian position at COP26 we suggest that the STS research agenda on post-truth could be widened to include the links between a post-truth government and environmental injustice.

Finally, as this article is being finalized, a transitional government begins in Brazil: on October 30, 2022, Luis Inacio Lula da Silva was elected president, for his third term (the first two were between 2003-2006 and 2007-2010). After a very harsh campaign, when Lula da Silva emphasized; the strengthening of scientific institutions, the protection of the Amazon rainforest, and the restoration of Brazilian leadership on climate change among his government priorities, good prospects may reappear on the Brazilian scene during the next few years. Not by chance, these changes have already been announced regarding COP27: invited by Egypt's President Abdel Fattah al-Sissi, Lula will participate in this month's United Nations climate summit in Egypt (Paraguassu and Spring 2022). One way or another, there is no doubt that disputes around science and environmental justice will be at the core of struggles to build Brazilian democracy in the future.

### Acknowledgements

Marko Monteiro acknowledges funding from Brazil's National Council for Scientific and Technological Development (CNPq), Grant number 309007/2019-4.

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