

# Brazil's Amazon Fund: A "Green Fix" between Offset Pressures and Deforestation Crisis

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**Abstract:** Emissions trading and nature-based solutions, particularly REDD+, have lent themselves to the critical literature on the "socioecological fix" in neoliberal capital accumulation and state regulation. Prone to reversals, land conflict, and leakage, these mechanisms displace the burden of carbon emissions reductions to global South countries, promote new green commodities, and thus increase rather than curb the chance of capital accumulations by big polluters. Studies of existing REDD+ projects register the privatisation of forest management on the one hand and "aidification" on the other, suggesting impediments to fully commodifying forest carbon ranging from social movement resistance to technical issues. This case study of Brazil's national Amazon Fund points to global South protagonism in constructing and negotiating REDD+, challenging Northern and market hegemonies. Progressive Southern actors use the political space of the fix to defend rural communities' territorial rights and demand resources in line with historic responsibilities and climate justice.

**Resumo:** O mercado de carbono e as soluções baseadas na natureza, particularmente REDD+, têm sido um tema central da literatura sobre a "conserto socioecológico" na acumulação de capital neoliberal e na regulamentação estatal. Com riscos de retrocesso e conflitos de terra, estes mecanismos deslocam a carga de reduções de emissões de carbono para os países do Sul Global, promovem novas commodities verdes e assim aumentam, em vez de diminuir, a chance de acúmulo de capital por grandes poluidores. Estudos de projetos REDD+ registram a privatização do manejo florestal, por um lado, e a dominância da cooperação internacional estatal por outro, sugerindo impedimentos para a plena comercialização do carbono florestal, desde a resistência do movimento social até questões técnicas. Este estudo de caso do Fundo Amazônia do Brasil aponta o protagonismo do Sul Global na construção e negociação de REDD+, desafiando as hegemonias do norte e do mercado. Os atores progressistas do Sul utilizam o espaço político para defender os direitos territoriais tradicionais e pedir recursos, de acordo com as responsabilidades históricas e a justiça climática.

**Keywords:** carbon markets, green economy, socioenvironmental fix, green fix, Amazon Fund, Brazil

## Introduction

At the beginning of the 21<sup>st</sup> century, the carbon sink quality of forests rose as a new paradigm for approaching the problem of deforestation, leading to the establishment of the mechanism "Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests

and enhancement of forest carbon stocks in developing countries” (called REDD+) within the United Nations Framework Convention on Climate Change (UNFCCC) (Fry 2002, 2007, 2008). This process includes the controversial consideration of carbon credits from avoided deforestation by landowners (or municipalities, communities) as tradeable compensation for emissions by high-emitting countries and sectors such as aviation—a socio-environmental fix in critical geography debates (Boyd 2010; Ehrenstein 2018; Rudel 2001). Most forests are in the global South, home to indigenous and traditional communities, and critics raise substantive technical and social concerns surrounding forest offsets and the commodification of forests.<sup>1</sup> Northern leaders of the EU, Norway, the UK, and the US have promoted offset schemes, while Brazil, until recently, led the sceptics, defending instead publicly governed programmes, *without* the generation of offset credits (McAfee 2016; Streck 2019).<sup>2</sup> Though forest countries rushed to regulate REDD+ with much technical assistance from donor agencies and technologies, finance, carbon prices, and deforestation reduction have not fulfilled their promises (Asiyanbi and Lund 2020; Duchelle et al. 2018; Milne et al. 2019). Most REDD+ funding has come from public foreign aid, especially Norway’s International Climate and Forest Initiative (NICFI) and German aid (see Table 1 for mechanisms).<sup>3</sup>

Between 2008 and 2019, Brazil’s Amazon Fund—the only major national REDD+ fund managed by a public recipient agency—raised international expectations and USD 1.3 billion in donations from the Norwegian government (93.8%), Germany’s development bank KfW (5.7%), and the Brazilian semi-public oil company Petrobras (0.5%) (BNDES 2022). Using a carbon price of USD 5 per ton of carbon dioxide, it rewarded national performance in reduced deforestation, calculated as the difference between measured deforestation and a defined baseline.<sup>4</sup> The average deforestation rates of the previous 10 years, updated every five years, determined the donation level. For instance, deforestation rates from 2006 to 2012 (the lowest recorded) were compared with a reference level equal to the average deforestation between 1996 and 2005. In 2019, Brazil’s far-right government led by Jair Bolsonaro abolished the fund by eliminating civil society councils. Only previously approved projects had been implemented since then. The new government of Luis Ignacio Lula da Silva reopened the Amazon Fund with Norway and Germany on the first day in office.

This analysis examines the Amazon Fund to contribute to theorising the socioecological fix: it shows that the creation and management of this global “pilot initiative” is led by recipient actors in the global South rather than Northern donors. Particularly, the global South agency contests and transforms rich countries’ expectations of privatising, commodifying, and aidifying processes of the socioecological fix. This case study draws on extensive field work as part of doctoral research. I conducted 160 qualitative semi-structured interviews in Portuguese, English, and German between 2017 and 2021 across Brazil, Germany, the UK, and at COP24 in Katowice, COP25 in Madrid, and COP26 in Glasgow. I interviewed representatives from donor agencies, Brazilian federal and state public servants, politicians, diplomats, consultants, forest engineers, researchers, lawyers, and representatives of socio-environmental NGOs and social movements (Bennett and Elman 2006). In this paper, which focuses on policymaking in action, I mainly

**Table 1:** Country-level REDD+ funding mechanisms (source: UN-REDD 2022)

Entity providing REDD+ finance	Country	REDD+ funding mechanism
Government of Norway	Brazil	Amazon Fund national REDD+ fund managed by a national Government institution (BNDES)
	Guyana	Guyana REDD+ Investment Fund (GRIF). The World Bank is the trustee for GRIF, receiving and managing funds
Government of Germany / KfW REDD+ Early Movers Program	Brazil	Amazon Fund managed by BNDES
	Ecuador	The National Investment Fund for a sustainable environment (FIAS), non-profit foundation with public and private participation
	Colombia	Natural Heritage Fund, non-profit foundation with public and private participation
Green Climate Fund	Brazil	Project managed by UNDP outside national fund structures
	Ecuador	Project managed by UNDP outside national fund structures
	Paraguay	Hybrid: national climate change fund (to be created) and project managed by UNEP outside national fund structures
	Chile	Project managed by the Food and Agriculture Organization of the United Nations (FAO)
	Indonesia	Environment Fund managed as a special-purpose facility by a national Government institution (Ministry of Finance/Ministry of Environment and Forestry)
	Colombia	Project managed by FAO
	Argentina Costa Rica	Project managed by FAO Hybrid: National Forestry Financing Fund of Costa Rica and project managed by UNDP
Central Africa Forest Initiative (CAFI)	Democratic Republic of the Congo	National REDD+ Fund managed by the Multi-Partner Trust Fund Office of UNDP
	Gabon	Managed by the CAFI Fund

draw on interviews on the Amazon Fund case with government officials, diplomats, and activists (Bogner et al. 2009; Helfferich 2009).<sup>5</sup> In addition, I collected project documents (proposals, memoranda, reports, news articles, and secondary literature) from public (Brazil's foreign ministry) and private archives to reconstruct decisions and events (Bohnsack 1999; Rothbauer 2017). I also participated in REDD+ workshops, seminars, and events of important donor initiatives to deepen the understanding of power dynamics, and actors' attitudes, strategies, and concerns.

This article goes on to discuss the critical geography debates on the socioenvironmental fix and present the contribution of the case study to the theorising of hegemony, the role of the state, privatisation, and commodification. The

empirical part begins presenting the geopolitical importance of the Amazon Fund as a national alternative to offset-driven global forest-based mitigation. The subsequent sections look at its implementation as a contested political space for actors defending market and human rights-based approaches.

## The Green Spatiotemporal Fix

The idea of REDD+, carbon offsetting, and other green economy solutions being socioecological/environmental fixes has been extensively discussed in the political ecology and critical geography literature (Bryant et al. 2015; Carton 2019; Ekers 2015; Ekers and Prudham 2015, 2018; Enns et al. 2019; Jessop 2000; McCarthy 2015; Paladino and Fiske 2017; Palmer 2021; Surprise 2018). The environmental fix draws on David Harvey's "spatiotemporal fix". It denotes the mechanisms of externalising into global peripheries, spatially displacing, and temporally deferring, crisis-tendencies of capitalism in the dual sense of the word—*fixating* capital in material form and *provisionally repairing* the conditions for accumulation (Harvey 2001, 2005a, 2005b). The environmental fix extends the economist concept of the fix, highlighting the metabolic processes of capitalism that involve the (under)production of nature (Ekers and Prudham 2015; O'Connor 1998; Polanyi 1957) and the exploration of social reproduction (Aulenbacher and Leibfinger 2019; Fraser 2011). Today then, the socioenvironmental fix and the ideological and symbolic dynamics internal to it become central to establishing political and economic hegemony, both materially and discursively (Ekers and Prudham 2018).

While some consider the environmental fix as any temporary solution to accumulation crises, studies on the role of carbon sinks and REDD+ stress the inherent geographical and colonial logic of the capitalist subsumption of nature (Fletcher 2019; Paladino and Fiske 2017). Bumpus and Liverman (2008) consider the Clean Development Mechanism (CDM) offset system within the UNFCCC's Kyoto Protocol, which allowed polluting countries to compensate rather than curb a part of their emissions, a North–South fix for climate action (Benites-Lazaro and Mello-Théry 2017).<sup>6</sup> Bryant et al. (2015) develop this argument by looking at the CDM in India and showing how the purchase of Certified Emission Reductions (CERs) allows Northern fossil fuel industries to pollute while meeting their climate targets and presenting themselves greener. Palmer (2021) considers the EU energy providers' employment of distant forests and their carbon-storing properties to avoid the use of coal. Similarly, Norway's REDD+ investment legitimises the country's continued oil extraction (Svarstad and Benjaminsen 2017). And Kellokumpu (2022) considers how the Finnish media justifies the bioeconomy and carbon sinks as a practical solution to the crisis within the paper and pulp production sectors. Socioenvironmental fixes like REDD+ and other market solutions also manufacture affinities and partnerships between extraction and conservation (Le Billon 2021).

The environmental fix literature argues that REDD+ programmes do not live up to their promises. Instead, proponents craft success narratives and use spectacle to legitimise a contested mitigation mechanism (Asiyanbi and Lund 2020;

Paladino and Fiske 2017; Svarstad and Benjaminsen 2017). Bulkan (2017) analysed the auditing of Norwegian REDD+ in Guyana, identifying a preference for swift and superficial rather than democratic processes in the governance and accountability of programmes. There is little evidence that REDD+ has reduced or will reduce deforestation in global South countries. Donors fund most policy studies, such as Norway's funding to the Center for International Forestry Research (CIFOR) (Angelsen et al. 2018). Assessments point to a failure to address the structural drivers of deforestation, especially in the international food industry. Moreover, political ecology and critical geography case studies indicate that REDD+ may serve as a fig leaf and thereby promulgate extractivism and deforestation (Krause 2020; Schmink et al. 2019).

A shared understanding of the socioenvironmental fix in critical geography debates is the market-based regulation (Castree 2008; Robertson 2004). In this sense, the current centre of climate action *and* capital accumulation are investments in "green" infrastructure and "sustainable" goods and services (Castree 2008; Malm 2020; McCarthy and Prudham 2004; Smith 2006). However, while this notion of the fix relates mainly to the logic of capital, the state regulates commodification and privatisation (Arsel and Büscher 2012; Bitter 2011; Bryant 2015; Ioris 2007). Castree (2008) defines the ecological fix as central to neoliberal state governance of the non-human world. In this context, the critical REDD+ literature suggests that *aidification*—mostly public foreign aid financed programmes—does not preclude commodification nor continued agribusiness and mining investment, but tightens the link between the private and public spheres (Asiyanbi and Lund 2020). On the other hand, Bakker's (2004, 2005) analysis of water management reforms in the UK suggests that the biophysical and geographic characteristics of nature's "unruly" substances can impede commodification and result in public reregulation, that is, restrained market hegemony. Moreover, while REDD+ turns forest carbon into a fictitious commodity (Fletcher 2017), unstable and locally contested programmes merely achieve a discursive, partial, and hybrid fix (Brenner et al. 2014; Carton 2019; Castree 2010; Müller 2020; Peck 2013). The relationship between REDD+, privatisation, and commodification thus warrants investigation, including the transformation into broader nature-based solutions, which include carbon capture and storage and others (Asiyanbi and Lund 2020).

The critical scholarship tends to focus on small-scale projects and agree that Northern knowledge production and agencies drive the fix while little has been written about policy-makers in the global South, which is the contribution of this article (Asiyanbi and Lund 2020). Existing important project-level analyses of subjective resistance to REDD+, green grabbing, rights infringements, and marginalisation in global South countries (Asiyanbi et al. 2019; Chomba et al. 2016; Fairhead et al. 2014; Scheba 2018) do not explain the Southern political protagonism in negotiating and dealing with neoliberal environmental governance (Asiyanbi et al. 2019; Rodrigues et al. 2018). This article contributes by addressing this dimension and by turning the focus to national REDD+ funds and the Southern actors driving their creation and implementation. How are these international fixes designed and negotiated, and is this Northern driven? Are they intended to

be fixes or displace problems, or what are their purposes? This analysis examines these questions to shed light on the forces driving and resisting privatisation and commodification and understand why and how global South protagonists set up, occupy, and seek to negotiate the socioenvironmental fix of REDD+ and market-based climate mitigation.

Most national REDD+ funds in global South countries—contrary to the emphasis on local ownership—are controlled by international organisations such as UNEP, UNDP, the World Bank, and FAO (see Table 1). As Asiyambi and Massarella (2020) show for Tanzania and Nigeria, donors steer and instrumentalise programmes to establish standardised REDD+ model policies, countries, regions, and projects. This blueprint approach typical to the aid apparatus prevents the promised transformation through REDD+. Krause's (2020) study of the environmental fix is a notable exception that focuses on Southern state agency. It suggests that Colombia's national REDD+ programme *Visión Amazonía*—funded by Norway, Germany, and the UK (like Brazil's Amazon Fund)—masked the structural drivers of deforestation, namely mining, ranching, extractivism, and intensive agriculture (Enns et al. 2019). We may expect similar dynamics from the Amazon Fund, which promotes conservation and territorial planning tools like Colombia's fund. However, Brazil has been a significant player in the international climate and REDD+ negotiations (Hochstetler and Milkoreit 2015).

According with the tendency mentioned above, most literature on the Amazon Fund focuses on single projects or the dimension of the fund's financial mechanism, rather than its international and domestic context (Marcovitch and Pinsky 2014). Reviews on Norwegian REDD+ aid state that the agreement differs from cooperation with other recipients as Brazil claims much more control over implementation (Angelsen 2017). Amazon Fund case studies analyse the multi-stakeholder governance (Bidone 2022), its results-based financing mechanism, and the diverging understandings among donor and Brazilian actors of what constitutes legitimate results (van der Hoff et al. 2018). Studies hint at a conflict regarding payments serving as compensation for past results *and* donor conditions for recipient *performance*. For instance, rising deforestation since 2013 put into doubt the feasibility of the mechanism. But studies have difficulties finding indications for the effectiveness of the fund in reducing deforestation, despite its important financial contributions to mediating instruments such as monitoring (Correa 2018; Correa et al. 2019). This case study turns the focus from project-focused notions of success to the international and domestic carbon politics to re-examine assumptions of North–South market hegemony. It seeks a nuanced understanding of the existing REDD+ fix and its privatisation and commodification dynamics. Moreover, it examines global South state and civil society protagonism in setting up and occupying green fixes.

## REDD+ and Brazil's National Amazon Fund

The Brazilian Amazon is central to the global socio-ecological transition because of its size, biodiversity, freshwater, and mineral resources (Carvalho et al. 2004). The region has been subject to successive colonialisation and exploitation, for

instance, the oppression of the *seringueiros* during the rubber boom of the 19<sup>th</sup> century (Almeida 2004; Bunker 1988). Since the 1970s, exploitation has implicated most forests around. A Brazilian trope that international cooperation endangers the national sovereignty over Amazonia has shaped the Foreign Ministry's activities under various administrations (Burgess 2008, 2016; Hochstetler and Keck 2007). At the same time, with financial capitalism since the 1980s, international trade frameworks have integrated natural resources into global trade and intellectual property regimes (Mueller 2018). As a result, Brazil has become a global leader in exporting commodities such as soy and cattle, the main driver of deforestation in the Amazon region, which is also an export corridor and energy producer for the national economy, displacing and dispossessing indigenous and traditional populations (Becker 1988, 2016; Costa 2005). After China, the EU imports most of the soy and palm oil that cause deforestation in the Amazon (Spring 2020; Zell-Ziegler 2017). Mining, infrastructure, energy, and agribusiness ventures are connected in this global resource frontier (Brannstrom 2009; Hecht 2005; Thaler et al. 2019). Brazil's indigenous, traditional, and Quilombola (traditional peoples of African and Indigenous descent) activists have gained influence in Brazil and internationally, organising against the neo-extractivist model (Almeida 2004; Keck 1995; Rodrigues 2003a).

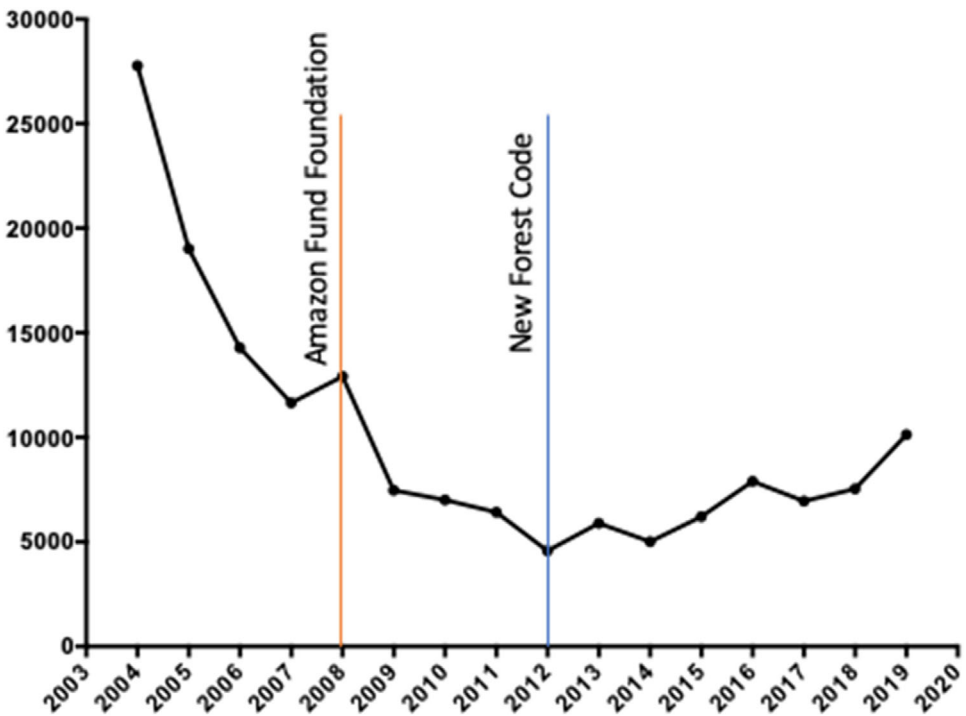
Although donors reconsidered Brazil's eligibility as an aid recipient since the 1990s, Brazil has been a top recipient of climate and REDD+ finance, given the country's geostrategic importance (Hicks et al. 2010). Before the Amazon Fund, aid influenced the Brazil's Amazon conservation agenda. Between 1992 and 2009, the Pilot Program to Conserve the Brazilian Rain Forest (PPG7) of the Group of Seven (G7) donor countries and the World Bank built and capacitated state and municipal public and civil society institutions in Brazil, including the environmental secretaries in the nine Amazon states. PPG7 was part of "greening" aid that had financed energy and infrastructure projects in the region during Brazil's military dictatorship (Hicks et al. 2010; Young 2002). Through PPG7, foreign aid became a constitutive part of the Amazon conservation (Bidone 2022; Hulme and Murphree 1999; Mol 2003). Concurrently, the US space agency NASA implemented the Large-Scale Biosphere-Atmosphere Experiment in Amazonia (LBA), which financed and shaped the structure of Brazil's National Institute for Space Research (INPE) that publishes Brazil's deforestation rates (Fearnside 2009; Lahsen 2009).<sup>7</sup> With successes in demarcating indigenous areas and promoting environmental modernisation, these donor-dominated forest-centred *fixes* mediated the global economic integration of the Amazon. G7 donors, all significant World Bank and IMF shareholders, promoted trade liberalisation that stimulated the expansion of agribusiness, megaprojects, and extractive industries (Hecht 2005; Ioris 2017; Rodrigues 2003b). In other words, while spreading the sustainable development paradigm and developing environmental compliance mechanisms, these programmes were a fig leaf compared to broader economic cooperation (Ioris 2017, 2020).

From 2003, the Worker's Party (PT) government under President Luiz Inácio Lula da Silva strengthened enforcement against illegal deforestation in the Amazon through the Action Plan for the Prevention and Control of Deforestation in

the Legal Amazon (PPCDAM) (Oliveira 2016). The policy led to a drastic decrease in emissions from deforestation in this rainforest (Figure 1) while boosting the export of commodities like soy—to the detriment of the neighbouring Cerrado forest that has been nearly destroyed (Maia et al. 2011).<sup>8</sup> Given these historic emission reductions, Brazil strengthened its position in climate debates and defended national sovereignty and environmental integrity against offsets (see Table 2 for a timeline of events) (Hochstetler and Milkoreit 2014). A statement from a diplomat illustrates this:

Every time the issue of deforestation comes up, I show them the facts. On my laptop, I have the IPCC numbers. For our profile, emissions come from deforestation, but not globally. And if anyone says we should have a specific agreement on deforestation, I say we should have an agreement on coal and gas. This is our line: forests are no alternative to action in these issues. You cannot shift attention to only one sector.<sup>9</sup>

When REDD+ emerged, there were unregulated and grievous offset adventures by “carbon cowboys” across the Amazon.<sup>10</sup> Already in 2003, at the COP9 in Milan, a group of Brazilian environmentalists had promoted “compensations for avoided deforestation”, leading an NGO representative to argue that REDD+ is “made in Brazil” (Gebara et al. 2017).<sup>11</sup> In 2008, the governors of California, USA, and the Amazon states Acre, Amapá, Amazonas, Mato Grosso, and Pará, founded the Governors’ Climate and Forests Task Force (GCFTF) that promotes offsets. All Amazon states have joined since then and advanced state-level



**Figure 1:** Annual deforestation in km<sup>2</sup> in the Legal Amazon (source: INPE/PRODES) [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/terms-and-conditions)]



**Table 2:** Timeline of Events related to REDD+ and the Amazon Fund

Brazil	International Events
1997	Kyoto Protocol, Brazil opposes the inclusion of conservation and deforestation avoidance
2003 Lula's first term	COP-7 Marrakesh: Brazilian environmentalists propose 'compensated reduction' linked to carbon markets
2004 Launch of PPCDAM	
2005	Coalition of Rainforest Nations COP-11 Montreal, REDD back on the agenda
2006 Amazon Soy Moratorium	The Clean Development Mechanism opens, a market-mechanism under the Kyoto Protocol
2007 Lula's second term Discoveries of the "Pre-Salt layer" NGOs launch Pact for Zero Deforestation in Congress, demand the creation of the Amazon Fund	The Bali Action Plan (COP-13), formal recognition of REDD
2008 National Amazon Fund launch	COP-14 in Poznan, + added (conservation, sustainable management of forests and enhancement of forest carbon stocks)
National Climate Change Plan	Brazil ratifies the U.N. Declaration on the Rights of Indigenous People (UNDRIP)
2009	COP-15 Copenhagen Governor's Task Force for Climate and Forests (GCF), U.S. and Amazon governors promote the inclusion of REDD+ in carbon markets
2010 Election of Dilma Rousseff	
2011	COP-17 in Durban decides the development of market-based approaches in addition to results-based actions in Global South countries
2012 New Forest Code	
2013	COP-19: Warsaw Framework for REDD+
2014 Dilma Rousseff is reelected by a small margin	
2015 National REDD+ Strategy (ENREDD+) Nationally Determined Contribution (NDC)	Paris Agreement: REDD+ included in article 5, Article 6 about market-mechanisms
2016 Impeachment of President Dilma Rousseff; Michel Temer Interim-President	
2017 Public Spending Ceiling for 20 years	UN Strategic Plan for Forests
2018 Lula is arrested, imprisoned, and prohibited from running as PT's presidential candidate	Intergovernmental Panel on Climate Change confirms importance of 1.5C Goal
2019 Election of Jair Bolsonaro Elimination of participatory councils and closing of the Amazon Fund	
2020	

(continued)

**Table 2:** (continued)

	Brazil	International Events
2021	Action at the Federal Court for unconstitutional omission for the paralization of the Amazon Fund - ADO N°59	COP26: Glasgow Leaders' Declaration on Forests and Land Use Article 6 sets framework for carbon markets
2022	The Federal Court rules that the extinction of COFA through art. 1 of Decree 10.223/2020 is unconstitutional Election of Lula as President	
2023	Reopening of the Amazon Fund	

frameworks for REDD+ and payments for environmental services as they seek financial resources through offsets (Zwick 2014). In 2008, Brazil's government launched the Amazon Fund initiative preceding an international REDD+ agreement to establish a national model and weaken pro-offset forces. According to advisors to Brazil's Minister of the Environment, the government sought to break with previous donor-driven projects, but doubted whether any donor would invest because it had already achieved the reductions and did not give donors emissions credits.<sup>12</sup>

In 2007, the Brazilian delegates presented the concept at the climate conference in Bali, where Norway launched its International Climate and Forest Initiative (NICFI). Environment minister Erik Solheim saw fit between NICFI and Brazil's Fund proposal. For donors, Brazil was geostrategic and the only country with the institutions and monitoring technology to manage a results-based fund of this scale.<sup>13</sup> Brazilian leaders conveyed that they "know what works" and, from an investor perspective, could "deliver" more results than poorer countries.<sup>14</sup> The proposal catered to international donors, offering them "zero investment risk" given achieved emissions reductions and zero costs for consultations and preparation.<sup>15</sup> Pointing to a spatiotemporal dimension of the green fix, donors claim that results-based aid increases "aid effectiveness by passing the delivery risk on to recipients" (Clist 2016:290).

In contrast to existing environmental fix expectations—and aid dynamics more generally—the Brazilian government, as the recipient, led the negotiations. Unlike other national REDD+ funds illustrated in Table 1, a Brazilian institution would manage the fund rather than an international aid agency. As a former politician explains:

Norway wanted the money to go to the World Bank, the GEF, or another multilateral organisation. We disagreed with this and proposed a mechanism that was Brazilian though Norway had concerns. We developed different options. The Brazilian Development Bank (BNDES) was interested, and we believed it had the technical conditions. Norway agreed because of BNDES' credibility.<sup>16</sup>

The choice of BNDES nationalised the control of this mitigation instrument. However, it was controversial among civil society at the height of the PT government's confrontation with environmental groups over the building of the hydroelectric dam Belo Monte in the Amazon. BNDES typically invested in infrastructure, energy, and agribusiness.<sup>17</sup>

The emergence of the Amazon Fund was connected to the North–South displacement of extractivism. According to a 2008 US diplomatic cable, Norway's prime minister expected a “positive impact” on their “ties in the area of exploring and developing [Brazil's] newly discovered offshore oil and gas reserves”. He referred to Norwegian companies and consultants “who could help a country follow the ‘Norwegian Model’ in developing its oil sector”.<sup>18</sup> But the proposed national Amazon Fund halted the trading of forest carbon and had the purpose to invest in national conservation efforts. In contrast to assumptions of a Northern and market-driven REDD+ fix, this case study reflects public North–South support for mitigation based on the historical responsibility of rich countries.

## Support for Neoliberal Conservation

The implementation of the Amazon Fund presents neither a commodification nor an aidification story. In this version of the environmental fix, the Brazilian state, through the Amazon Fund, invested in the public conservation pillars of the PPCDAM (46%, USD 667.3 million towards monitoring and control, the management of public forests and protected areas), “improving farmers’ access to environmental regularisation to increase environmental compliance”, as well as sustainable development projects, public–private partnerships, and so-called economic instruments (BNDES 2018; Correa et al. 2019). Thus, it did not focus on strict deforestation reduction but also supported “guardians of the forest” in low-deforestation areas. The so-called social co-benefits have been central to the integrity and legitimacy of REDD+ (Pelletier et al. 2018). BNDES approved projects proposed and implemented by municipalities, the federal and Amazonian state governments, universities, and the “third sector”, a broad definition of civil society (BNDES 2019b). Until 2021, the Fund supported 102 projects budgeted at USD 693 million. In 2017, a total of USD 667.3 million, USD 256.6 million had gone to states, USD 140.6 million to federal government agencies, and USD 241.1 million to NGOs (Correa et al. 2019).

Project applications needed to demonstrate scale and operational capacity (BNDES 2019b). In the field of “sociobiodiversity”, the Fund focused on marketing and commercialisation of non-timber forest products, looking to turn local cooperatives competitive.<sup>19</sup> BNDES’ corporate structure and financial requirements generated biases against small organisations of indigenous, quilombola, and traditional people (COFA 2010, 2015). The Amazon Fund and the German aid agency GIZ advising it had a strategy they called *aglutinadores* (umbrella NGOs) which executed projects with 10–15 small organisations. According to activity reports, this strategy reached 507 institutions and 207,000 people (BNDES 2022). Though the criteria prohibited the concentration of funds, observers find that 80% of the financial resources to civil society went to half of

the supported NGOs, including the Fundação Amazonas Sustentável (FAS), the World Wildlife Fund (WWF), and The Nature Conservancy (TNC) (Correa et al. 2019). Observers in civil society and administration criticised BNDES' lack of capillarity and flexibility for working with grants, conservation, and Amazon populations. BNDES gradually expanded its expertise though maintaining bureaucratic filters. Rural movement leaders argued that this dynamic weakened the visibility of small organisations.<sup>20</sup> As a bureaucrat in the Ministry of the Environment noted: "The funds translated into a project logic that makes many cases unviable and forces small NGOs to associate with large ones to access resources".<sup>21</sup>

Moreover, although the Amazon Fund did not grant carbon credits, it brokered public–private partnerships—so-called Sustainable Productive Arrangements (COFA 2015).<sup>22</sup> According to a GIZ consultant:

There are already private donors like Petrobrás, and the calls for Sustainable Productive Arrangements prioritise private sector participation. Although the private sector cannot benefit from the funds, it can be a project partner. That already exists in a project for which the Vale Fund of Vale do Rio Doce donates 60 million and joins another 60 million from the Amazon Fund to form a fund that fosters business in the Amazon.<sup>23,24</sup>

Thus, Amazon Fund implementation accommodated neoliberal conservation. Comparable to aid programmes and in line with the critical literature, the REDD+ instrument brought public and private institutions together, including polluters like the mining company Vale that are seeking environmental legitimacy and influence in these debates (Asiyanbi and Lund 2020).

## Defending a Public Policy Approach

Nevertheless, implementing a public policy approach instead of offsets highlights the difference between privatisation, financialisation, and greenwashing on the one hand, and market hegemony on the other. In 2015—shortly before being ousted through a parliamentary coup—Lula's presidential successor Dilma Rousseff (also PT) established Brazil's national REDD+ framework, which inhibited offset-generating projects. This was in line with the COP19 Warsaw Framework that advanced REDD+ operationalisation through methodological requirements, leaving out a market mechanism though not impeding its existence in the future. In 2011, the parties had agreed that the COP could develop market-based approaches, which polarised since countries like Brazil, South Africa, India, and China (BASIC) and Bolivia opposed offsets (Recio 2013; REDD+ Brasil 2016). In Warsaw, Brazil emphasised that results-based payments should not offset mitigation obligations of high-emitting countries to ensure environmental integrity (Voigt and Ferreira 2015). This issue has been equally controversial within Brazil, as an activist states:

Nobody talks about carbon. The indicators are deforestation rates because we already have the National REDD+ Strategy, based on the Warsaw Framework, which is a demon for carbon market advocates. It is payment for national results, not *hugging a*

*tree and counting carbon.* And another thing is the NDC [Nationally Determined Contribution]. Brazil can no longer market its results because it would not have results to present against the UNFCCC.<sup>25</sup>

Brazil's national REDD+ framework is linked to UNFCCC commitments, federal regulation, and socioenvironmental safeguards, such as consultations and free prior informed consent. Illustrating this approach, a participatory national Guidance Committee (COFA) steered and monitored the application of the Amazon Fund (Presidência da República 2015). Chaired by the Ministry of the Environment, it included representatives of six federal ministries, BNDES, the Chief of Staff of the Presidency, the nine Amazon state governments, and six civil society representatives. The environmental fix of the Amazon Fund—and its national framework—contributes to the literature on REDD+ resistance as activists sought to use the debate to reassert their territorial rights, to defend and occupy a public policy approach. According to a representative of a critical NGO: “there was a political space to occupy, so that [the market model] did not grow. It was necessary not only to look from the outside but also to have this experience”.<sup>26</sup> As a lawyer representing popular movements explains:

We attend the meetings to link the safeguards to human rights and national and international agreements like the Interamerican Convention. In the annex of the national REDD+ framework civil society put the public policies that support REDD+ targets, including agroecology, food security, and the demarcation of indigenous and traditional people's lands. We translated them for international financial institutions to support them. On the national level, we fought to change the metric from tons of carbon to hectares. Only when reporting, Brazil translates it into the emissions targets. We disagree with the carbon metric that reduces the biodiversity of forests. The conversion methodology is very controversial.<sup>27</sup>

Against these efforts, state governors and large environmental NGOs close to the agribusiness tried to overturn Rousseff's national REDD+ decree. This position strengthened within Brazil and internationally. Donors accept the UN framework and the principle of common but differentiated responsibility (CBDR), though the offset push has undermined the latter.

In Brazil, the 2012 reform of the Forest Code reflects the grip of agribusiness over government and congress, including forest governance and payments for environmental services, marking a turning point in Brazil's environmental legislation. The Forest Code of 1965 mandated that landowners maintain a “legal reserve” of standing forest, for example, 20% in savannas and between 50% and 80% in the Amazon rainforest. The PT government's PPCDAM had reinforced it effectively for the first time and met a ruralist backlash. The New Forest Code established amnesty for clearing legal reserves on small farms before 2008. Worse yet, it reduced the required forest cover in properties from 80% to 50% in states if over 65% of the state's territory are conservation units or indigenous reserves, enabling a net increase in deforestation beyond this threshold (Bevins 2012; WWF 2012). The reform drove deforestation up and turned environmental policy from prosecuting environmental crimes to including the agribusiness in the conception of “environmental services”.<sup>28</sup> The reform allowed landowners with an

illegal deficit in forest reserves to buy from other owners with a surplus instead of reforestation, a market that promoted land speculation (Pacheco 2009; Packer 2015; Pereira et al. 2016). The lawyer explains that the precarity of the public system presents a dilemma for those building its safeguards because they may legitimise a future market approach:

Other NGOs put in low-carbon agriculture, the new generation of technologies with loyalties like indirect seeding, and practices that the agribusiness sells as sustainable. Monsanto and others are doing a new type of green revolution, of colonialism; the third after Columbus ... If the decree falls, we will be victims because we participate in building a public policy approach, a human rights approach ... NGOs and the Amazon governors are planning this market; they select if only reforested areas count because the Forest Code permits this. The second step is to choose the forest types, e.g. plantations, in their interest. The safeguards we are working on could, in the future, permit this.<sup>29</sup>

In sum, despite the dominance of private conservation, the national Amazon Fund presented an important space for civil society to claim and decide about climate transfers. As a scholar working with rural communities said: "I think we should fight for this money. I don't want to see it going to TNC or WWF. Some give up and say it is compensation money for Norway's oil. But I say, you want to give it to the Pará government that licenses mining and dams?"<sup>30</sup> This case illustrates the global South contestation and shaping of socioenvironmental fixes against commodification and privatisation, that is, market hegemony internationally and within the state. The next section shows how right-wing politics undermined this mechanism.

### **"Brazil Protects. The World Supports It. Everybody Wins"**

Once established, donors used the Amazon Fund as a pilot and model programme to legitimise and promote REDD+ (Asiyanbi and Massarella 2020). As in the literature, the fund fixed the contradictions between promise and reality, such as the lack of access stated above. REDD+ assumes that financial incentives translate into environmental reforms and land-use changes for forest owners, thus saving greenhouse gas emissions (Correa et al. 2019). Donors and managers promoted the Amazon Fund as a success model, referring to the enormous decline from 2004 to 2012, which cannot be attributed to the Amazon Fund starting in 2008 or the REDD+ framework. Instead, they resulted from public legal command and control institutions (Prata 2016). By 2012, when deforestation rose again, the Fund had only approved 34 projects (USD 195 million); none had concluded. As Figure 1 shows, considering the delay in approving the first projects, most of the Fund's operation happened while deforestation rates rose again. This reflects REDD+ studies that find that donors cherry-pick results to legitimise initiatives (Angelsen et al. 2018; Matthew and Stroh 2020).

Donors financed the Amazon Fund with an additionality condition, avoiding crowding out Brazil's environment budget but fund innovation like economic instruments to incentivise private initiatives. The principle, set in Brazil's optimistic

years, became unfeasible as a political and economic crisis unfolded. Following a fall in commodity prices, Brazil's economy entered a recession in 2014. In 2015, the PT government implemented a neoliberal agenda in response to the crisis, but failed to conciliate with the dominant classes while losing support among its base (Grigera and Webber 2019). In 2016, Dilma Rousseff was ousted through a parliamentary coup and her vice president Michel Temer took office as interim president. Agribusiness—represented in Congress through the so-called Ruralist Caucus—has been a key supporter and beneficiary of the coup and the rising far-right, climate denialist Bolsonaroismo (Moraes 2022; Nunes 2020). In 2016, Temer introduced a Public Spending Ceiling for 20 years. Approved in Congress and active since 2017, the constitutional amendment prevented investments in health, education, and environmental protection. The latter had already decreased under Rousseff's cuts.

The cuts and the deforestation rise impeded the incentivisation of private initiatives, showing the necessity of public command and control. In 2016, the Amazon Fund addressed and started to counteract the process of environmental setbacks. In response to austerity measures in the environmental sector, affecting IBAMA's inspection (from USD 50.64 million in 2014 to USD 29 million in 2017), INPE (from USD 84.5 million in 2010 to USD 43.63 million in 2017), and CENIS-PAM (losing over 70% of funding from 2009 to 2017), it increased funding to federal agencies from 5% to 26% of disbursements between 2015 and 2018 (Correa et al. 2019). For the international results-based agreement, its additionality principle, and the presumption of stable environmental progress, the necessity to use REDD+ for basic public functions was a crisis. Interviewees unanimously supported this adjustment since other projects depend on control and command.<sup>31</sup> The commodification and additionality, that is, use of REDD+ funds for economic instruments intended by BNDES and donors proved impossible, and the environmental fix would need to ensure public operations.

But in 2018, donors still referred to reductions and measures between 2004 and 2012 to promote REDD+ success, eliding the reversals underway.<sup>32</sup> Norway's auditor of the Amazon Fund did not reveal positive causal effects on reducing deforestation. Norway's environment minister downplayed the reversals in his response (Foss 2018). A diplomatic meeting in 2016 in Oslo called for public–private arrangements and downplayed the achievements of control and command as “low-hanging fruits” (Prata 2016).

Donor and Brazilian environmental actors expected stability from the BNDES and that it would safeguard the Fund against the political turmoil and the dismantling strategy of Bolsonaro.<sup>33</sup> Donor representatives emphasised the institution's financial accountability and transparency.<sup>34</sup> The Amazon Fund served as a fix in stabilising environmental institutions, international cooperation, and Brazil's international reputation as a climate leader. In 2018, two years after the coup against Rousseff, a Brazilian representative of the German aid agency GIZ argued that:

The Amazon Fund is very solid regardless of which party is in power. Our current government is very close to the ruralists, and this does not prevent the operation of the

fund. This would only be threatened if the president of the BNDES were someone corrupt or connected to some party.<sup>35</sup>

A BNDES manager herself similarly believed that:

First, it was Lula, and now it is Temer. But there is more than the government. Brazil is aiming to be an environmental leader. There has been civil society mobilisation, and there are international commitments. We might have some reversal, but I don't think it would affect dramatically as with Trump.<sup>36</sup>

Socioenvironmental activists were concerned about attacks against democracy and austerity measures. A former leader of the Ministry of the Environment stated ahead of the 2018 elections that:

I am not optimistic about the Amazon Fund and Amazon protection in general. Since 2012, there have been negative tendencies. There is no credibility of the state, which undermines international cooperation. How can we ask Norway for money if we have achieved nothing? If we get a government committed to enforcement and recovery in the Amazon, it can get better. The state will need to make concrete steps so that international cooperation returns.<sup>37</sup>

Only one year later, in April 2019, Brazil's new far-right president Bolsonaro per decree eliminated federal civil society councils, including COFA, which terminated the Fund (BNDES 2023). He had also confronted Norway and Germany, which led to the freezing of these countries' tax funds (Boffey 2019). The government dismantled, privatised, and militarised Amazon forest governance, paralysing environmental control agencies, the demarcation of indigenous lands, and the implementation of agrarian reform (Hochstetler 2021). In this context, donors continued promoting market-based international mechanisms, and turned to sub-national constituents and beneficiaries, particularly state governments who had contested the national framework. At COP26 in Glasgow, state leaders again emphasised nature-based solutions, eliding the failures of REDD+, despite widespread climate change denialism and environmental degradation in tropical forests. Given Brazil's weight in climate geopolitics it is no surprise to see the new Lula government reinstating the Amazon Fund to rebuild environmental regulation (Amaral 2023).

## Conclusion

The socioenvironmental fix displaces the crises of and generates opportunities for capital accumulation in the face of climate emergency. This case study examined the hegemonic forces driving REDD+ and nature-based solutions and the counter-hegemonic efforts contesting them. The Amazon Fund is a green fix per design. The project represents environmental action and goodwill from donors who have economic and resource interests in the region. More important than offsets for polluters in this aidified case of REDD+ is the purpose of "keeping things together", namely environmental institutions that are being dismantled, which delayed further scrutiny of Brazil as an ethical source of resource exploration. This green fix dimension is emblematic for neoliberal state institutions, mediating anti-



democratic attacks from ruralists until the inevitable closing of the Amazon Fund in 2019 finally alarmed international publics about the environmental crisis. How close the neoliberal green fix comes to right-wing climate change denial shows the agribusiness influence in climate debates.

Regarding the commodification and privatisation function of the REDD+ fix, the case study offers a nuanced understanding of existing REDD+. It also holds lessons for the theorisation of the role of the state and public aid in the green fix, suggesting that the commodification of forest carbon and the aidification of pilot programmes do not contradict each other. The state is important in promoting commodification as a viable option through financing so-called REDD+ readiness and smaller pilot projects of payments for environmental services. Furthermore, the Amazon Fund suggests that as this readiness is not achieved. The public model remains a guarantee—for correct accounting, benefit sharing, and participatory governance, etc.—that offset projects do not guarantee. The fact that the new Lula government together with Norway and Germany now reopens the Amazon Fund in the same form without carbon credits despite their international popularity is in line with this finding. In this sense, the persistence of the public option does not impede, but also enable the promotion of the commodification of forest offsets. Nor does it impede the privatisation of conservation but can incentivise public–private partnerships.

Challenging a common assumption about the green fix, the analysis finds that the Amazon Fund is an alternative to Northern controlled national REDD+ funds. Its foundation was an effort to resist Northern hegemony in Southern forest governance. Some literatures have portrayed the PT government's resistance to carbon offsets as part of its developmentalist agenda, but this study argues that it reflects popular demands for territorial rights (Viola and Franchini 2018). This largest case of a recipient-managed fund reflects Southern demands for sovereignty and unconditioned mitigation support for global South forests. Though it has not impeded rising deforestation and complicated access for small indigenous and traditional people's organisations, unlike carbon projects, the Amazon Fund was integrated with public policy and offered resources for civil society and a space for popular governance. This has given it reputation among diverse socio-environmental actors in Brazil. This case suggests that the socioenvironmental fix is permeable to global South resistance. The Amazon Fund presents an option for the implementation of the USD 100 billion that rich countries have promised the global South at climate summits to not only fix but fulfil their historic responsibility.

## Endnotes

<sup>1</sup> Leakage refers to deforestation moving to other areas or countries. Additionality refers to the impossibility of knowing what would have happened without the intervention. Permanence refers to the concern that trees only temporarily store carbon until they die and release it. Measurement refers to the difficulty and unreliability of data on stored carbon in forests (Scheba 2018).

<sup>2</sup> Until the global financial crisis of 2008, many expected the formation of a REDD+ carbon market (Financial Times 2012; Gebara et al. 2017; van der Hoff et al. 2019).

- <sup>3</sup> [https://www.bmz.de/en/publications/topics/countries\\_regions/Materialie250\\_redd.pdf](https://www.bmz.de/en/publications/topics/countries_regions/Materialie250_redd.pdf) (last accessed 13 January 2023).
- <sup>4</sup> It disbursed USD 469 million (BNDES 2019a).
- <sup>5</sup> The interview transcripts, ethnographic notes, and archival documents were analysed using the qualitative data analysis software NVivo. During my research, environmental politics have become contentious in Brazil. Therefore, I anonymised the interviews, despite their previous consent, to protect the subjects.
- <sup>6</sup> The Kyoto Protocol of the UNFCCC, signed in 1997, ordered industrialised countries to reduce emissions according to individually defined targets. It included mechanisms that allowed financing projects in the global South to achieve targets, that is, the Clean Development Mechanism (CDM).
- <sup>7</sup> Interview 133 (2019) Researcher at Brazil's National Institute for Space Research (INPE), Brasilia. Brazil's National Institute for Space Research (INPE) has monitored the Brazilian Amazon forests from space since 1988 through a project called PRODES and announces deforestation rates annually.
- <sup>8</sup> Interview 124 (2018) Environmental analyst at IMAZON, Belém.
- <sup>9</sup> Interview 22 (2018) Brazilian diplomat.
- <sup>10</sup> Interview 116 (2018) Brazilian diplomat, Brasilia.
- <sup>11</sup> Interview 63 (2018) Leadership of FASE (Federação de Órgãos para Assistência Social e Educacional), Rio de Janeiro.
- <sup>12</sup> Interview 129 (2019) Consultant, former leadership of the Brazilian Ministry of the Environment, Sao Paulo.
- <sup>13</sup> Interview 40 (2018) Representative of the Norwegian Embassy, Brasilia.
- <sup>14</sup> Interview 36 (2018) Brazilian Diplomat, Brasilia.
- <sup>15</sup> Interview 129 (2019) Consultant, former leadership of the Brazilian Ministry of the Environment, Sao Paulo.
- <sup>16</sup> Interview 59 (2018) Former leadership of the Brazilian Ministry of the Environment, Sao Paulo.
- <sup>17</sup> Interview 38 (2018) Representative at the Ministry of Development, Industry and Foreign Trade, and former director of the PPG7 at the Brazilian Ministry of the Environment, Brasilia; Interview 56 (2018) Environmental policy expert and former administrator at the Brazilian Ministry of the Environment, Sao Paulo; Interview 63 (2018) Leadership of FASE (Federação de Órgãos para Assistência Social e Educacional), Rio de Janeiro.
- <sup>18</sup> Source <https://www.scoop.co.nz/stories/WL0809/S00372.htm> (last accessed 27 January 2023).
- <sup>19</sup> Interview 42 (2018) Civil servant at the Brazilian Ministry of the Environment, Brasilia.
- <sup>20</sup> Interview 140 (2019) Leadership representative of Brazil's National Council of Extractivist Populations (CNS), Belém.
- <sup>21</sup> Interview 41 (2018) General Coordinator, Forests and Sustainable Development, MMA, Brasilia.
- <sup>22</sup> Interview 42 (2018) Civil servant at the Brazilian Ministry of Environment, Brasilia; Interview 109 (2018) Former leadership of Brazil's Ministry of the Environment, Brasilia.
- <sup>23</sup> Interview 66 (2018) GIZ coordinator in Brazil and former PPG7 functionary, Rio de Janeiro.
- <sup>24</sup> This project for funding of US\$ 10,188,042 was approved in 2016, but canceled in 2017 (BNDES 2019b).
- <sup>25</sup> Interview 63 (2018) Leadership of FASE (Federação de Órgãos para Assistência Social e Educacional), Rio de Janeiro. In 2015, Brazil submitted its NDC of an emissions reduction by 37% below 2005 levels by 2025, and 43% below 2005 levels by 2030.
- <sup>26</sup> Interview 63 (2018) Leadership of FASE (Federação de Órgãos para Assistência Social e Educacional), Rio de Janeiro.
- <sup>27</sup> Interview 82 (2018) Popular lawyer supporting peasant and traditional populations.
- <sup>28</sup> Interview 87 (2018) Leadership of the Brazilian Ministry of the Environment, Brasilia; Interview 124 (2018) Environmental analyst at IMAZON, Belém; Interview 133 (2019) Researcher at Brazil's National Institute for Space Research (INPE), Brasilia.
- <sup>29</sup> Interview 82 (2018) Popular lawyer supporting peasant and traditional populations.

- <sup>30</sup> Interview 122 (2018) Professor of Economy at the Nucleus for Amazon Studies at the Federal University of Pará, NAEA, UFPA, Belém, Pará.
- <sup>31</sup> Interview 59 (2018) Former leadership of the Brazilian Ministry of the Environment, Sao Paulo.
- <sup>32</sup> Interview 24 (2018) Representative GIZ Brazil, Brasilia; Interview 40 (2018) Representative of the Norwegian Embassy, Brasilia; Interview 62 (2018) Leadership of the Amazon Fund, BNDES, Rio de Janeiro.
- <sup>33</sup> Interview 56 (2018) Environmental policy expert and former administrator at the Brazilian Ministry of the Environment, Sao Paulo.
- <sup>34</sup> Interview 33 (2018) Representative of GIZ in Brazil, Brasilia.
- <sup>35</sup> Interview 66 (2018) GIZ coordinator in Brazil and former PPG7 functionary, Rio de Janeiro.
- <sup>36</sup> Interview 62 (2018) Leadership of the Amazon Fund, BNDES, Rio de Janeiro.
- <sup>37</sup> Interview 94 (2018) Former MMA leadership, Brasilia.

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