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Which Green Finance Can Protect the Amazon Rainforest?

João Emboava Vaz

Federal University of Rio de Janeiro and EPOG+ (Cohort 2023)

The recent election of progressive governments in South America sparks new hope for the largest rainforest on the planet. However, questions remain on how different actors can work together to finance the protection of the 80% of the forest that is still left to be saved.

INTRODUCTION

The 27th UN Conference on Climate Change (COP27) ended with a major accomplishment for developing countries: the creation of a 'Loss and Damage' Fund, in which developed countries that historically contributed to climate change will finance climate mitigation policies in developing countries. This important advancement shed light on the centrality of North-South financial relations against climate change. This also comes in a moment of political shift in the environmental action in South America, especially in relation to the Amazon rainforest.

Lula da Silva, Brazil's newly elected President has reinforced the commitment of the country responsible for 60% of Amazonia[1] with climate mitigation policies. The country has already restored the Amazon Fund and restored major Amazon protection programmes.[2] Colombia's Gustavo Petro has also launched economic programs for the protection of the forest and pledged for new debt-for-nature financing.[3] The two South American countries are home to around 70% of the rainforest.

However, governments interested in reducing deforestation usually stumble on lack of funds for state action of climate protection. In Latin America, the issue of external finance is especially important due to its history of external debt crisis and the region's recent external debt-to-GDP increase to 52.1% after the COVID-19 pandemic (IMF, 2022).

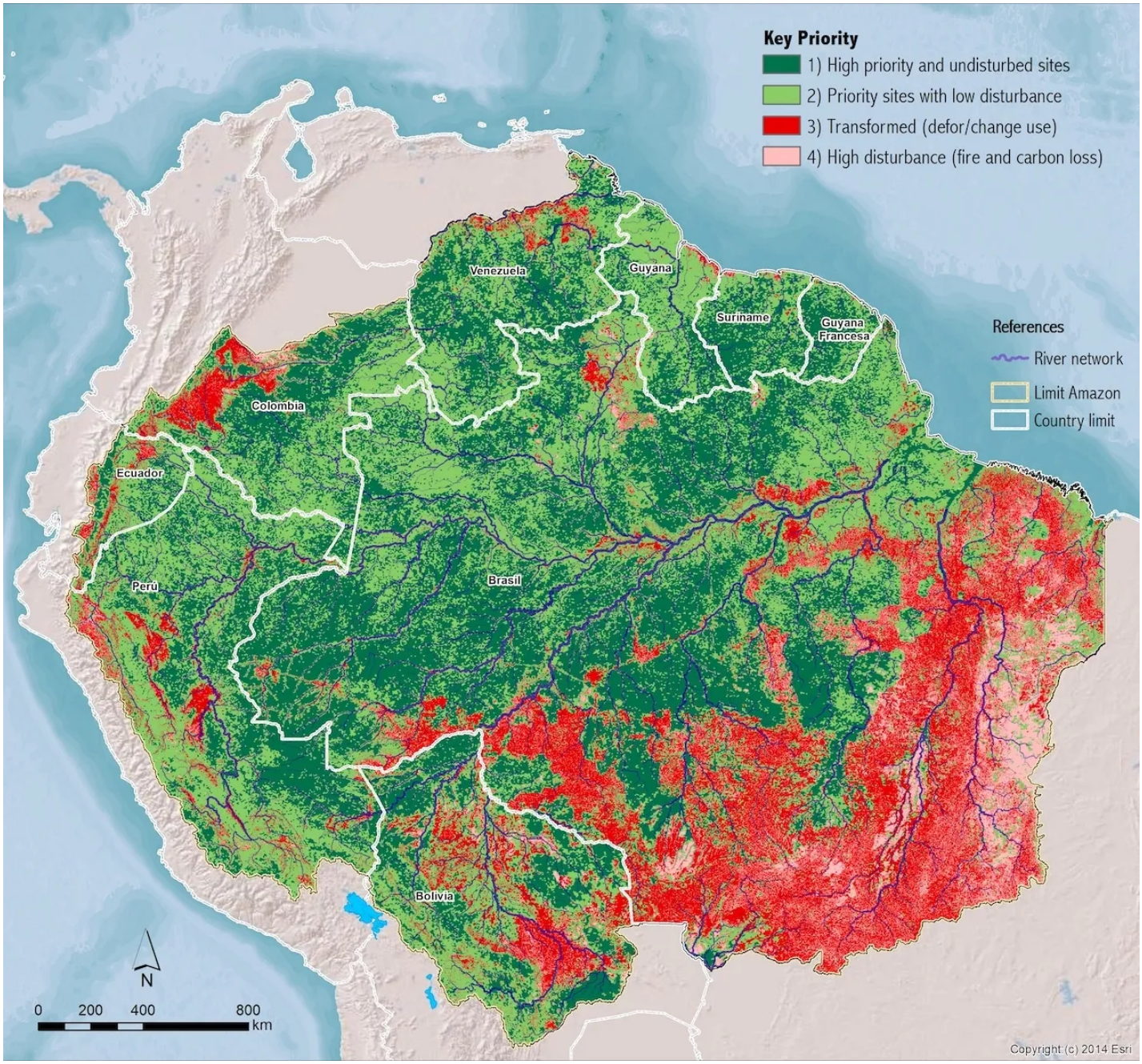
This brings the negotiation for international financial co-operation for stopping deforestation to the forefront of the climate debate.

Mainstream economic recommendations usually advocate for market mechanisms to create monetary incentives to reduce environmental damage. On the other hand, there is important evidence that state control over forest areas and partnership with local communities are more effective on stopping deforestation. This policy brief looks at different "green finance" policy options that hold space in the public debate, examining their current potentials for the Amazonia in light of past preservation experiences.

WHY THIS MOMENT IS CRUCIAL FOR THE PROTECTION OF THE AMAZON RAINFOREST

The Amazon rainforest is one of the most biodiverse ecosystems in the world with more than 3 million living species, apart from being responsible for one-fourth of all Earth's CO2 absorption.[4] According to Quintanilla et al. (2022), however, 26% of the rainforest has already reached high degradation levels, and another 41% low degradation levels (see **Figure 1**). 74% of the land can still be protected and 6% (54 million hectares) restored. According to Müller (2020), at the current pace of destruction, around 137 living species are

FIGURE 1 - MAP OF DISTURBANCES AND DETERIORATIONS IN THE AMAZONIA



Source: Quintanilla et al. (2022)

driven to extinction every day in the area. Apart from the loss in biodiversity, the savannization of such a huge tropical forest greatly affects the world economy, with catastrophic consequences in terms of global warming and drying (Lawrence et al., 2015).

As seen in **Figure 1**, most of Amazonia's degraded area is situated in Brazilian territory (20.4% out of 26% of the total deforested area). Brazilian deforestation normally starts with land-grabbing (many times illegally) by "early settlers", that lead to logging for the forestry sector (many times illegally) to then sell the lands for cattle raising and/or soybean production activities which use long extension of lands and exhaust the land for new use (Hetcht, 2005; Costa & Fernandes, 2016). The importance of possession of land in the beginning of the process gives great importance to the control over the appropriation and exploitation of land in the first place. This appropriation is economically directed towards the demand of the agribusiness market (especially cattle and soybeans in the case of Brazil) and of the forestry market (tied to logging) for the new land and its resources (Santos de Lima et al., 2018).

CAN "GREEN FINANCE MARKET MECHANISMS" STOP DEFORESTATION?

The UN, the World Bank, and the IMF increasingly foster economic incentives to stop deforestation, what we refer here as "green finance market mechanisms". We briefly look at two of the main mechanisms proposed: green bonds and REDD+.[5]

Green bonds are the issuance of debt bonds to finance projects related to the environment. The methods of evaluation of "green bond" projects are often criticized due to its concentration in carbon-stock parameters and its nature-valuation orientation.[6] In the case of Brazil, Miola et al. (2021) find that the biggest issuers of green bonds are exactly the forestry sector, which are related (direct or indirectly) to the logging activities of exploitation (Santos de Lima et al., 2018). Until September of 2021, more than USD 3 billion had been issued in green bonds in Brazil, "almost in its totality by big multinational companies present in the paper and cellulose international market" (Miola et al., 2021, p. 168). The authors estimate 90% of the funds received through the bonds were used for the maintenance and expansion of areas of production of wood for commercialization, which already constitute 7.83 million hectares in Brazil (Miola et al., 2021, p. 170). Green bonds would then further support the accumulation practices of extractive sectors, while reinforcing debt-creditor relations that worsens financial position of developing countries.

REDD+ is the practice of payments for "reducing emissions from deforestation and forest degradation in developing countries" (REDD), plus the "sustainable management of forests, and the conservation and enhancement of forest carbon stocks" (UNFCC, 2023). In other words, paying companies for nature's assets they did not destroy in their productive activities. This approach has been greatly enforced by the UN as the core element of preservation since the Paris Agreement in 2015, but it has been criticized for reinforcing the commodification of nature and the logic of "pay-to-conserve" (Brenha Ribeiro, 2022).

Already the most popular service in carbon credit markets alongside renewables, credits services of conserving the forest became of high interest especially for the most-polluting companies (Lee, 2019). These payments quite often finance projects of monocultures for agrofuel, reforestation with industrial tree plantations such as eucalyptus, no till farming of agrobusiness, and low carbon agriculture (Moreno et al., 2021). Projects highly criticized for "trampling indigenous peoples' rights, turning forests into plantations or shifting deforestation from one place to another without actually cutting emissions" (Brenha Ribeiro, 2022, p.39). As with green bonds, although REDD+ can arguably provide a marginal impact on mitigation, they overall reinforce extractive industries' activities.

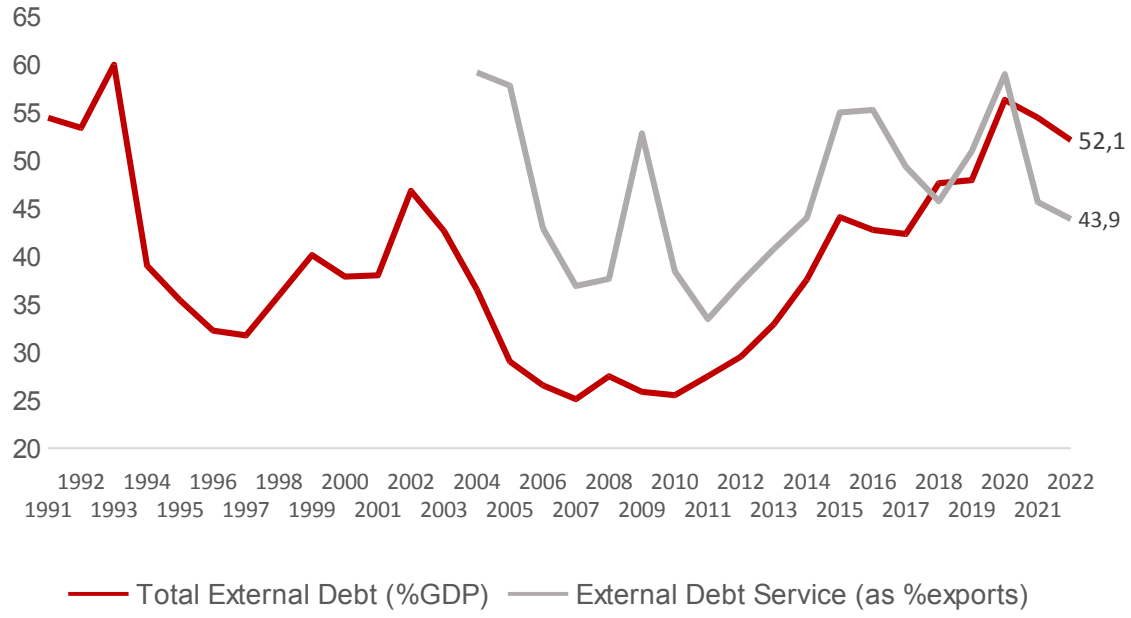
THE GREEN FINANCE OF DEBT-FOR-NATURE SWAPS

The historical accomplishment of the "Loss and Damage" Fund agreement in the COP27 is ground-breaking because it gives voice to the historical claim made by the developing countries of assigning financial responsibilities based on historical contributions to climate change by countries that industrialized earlier.[7] This has given new attention to North-South financial relations and the efforts for ecological transition.

When regarding the Amazon rainforest, the main funding debate at COP27 concerned debt relief. An alliance of indigenous organizations representing more than 500 indigenous groups from 9 countries in the Amazonas River basin presented a proposal of conditional debt pardoning based on protection of the rainforest, which was signed by 32 countries and 541 non-governmental organizations (Quintanilla et al., 2022). Newly elected President of Colombia Gustavo Petro pledged for the same debt relief policy by debt-for-nature swap.

The external debt of Latin American countries has been increasing since the 2008 crisis, reaching the highest levels in more than 15 years during the covid-19 pandemic in 2020 (see **Figure 2**). Currently, external debt stocks represent more than half of the region's GDP, while external debt services represent 43.9% of exports (IMF, 2022). This is a situation that tightens governments space for action on climate. Under this context, debt-for-climate swaps have regained popularity in the region, leading the UN to launch the ECLAC Debt for Climate Adaptation Initiative for Caribbean small islands (ECLAC, 2022).

FIGURE 2- LATIN AMERICA AND THE CARIBBEAN EXTERNAL DEBT BURDEN



Source: Author's elaboration, based on data from IMF (2022).

The first debt-for-climate swaps agreement was done between Bolivia and Conservation International in 1987, amidst the Latin American debt crisis. It resulted in the cancellation of $650000 Bolivian foreign debt for $100000 worth of local currency in the preservation of its Beni Biosphere Reserve (Thapa, 2009). Although this type of policy got out of use after the 1990s, it has regained popularity with the looming climate and external debt perspectives (Chamon et al., 2022).

This type of financing policies have also been well regarded by climate specialists. The "Climate Change 2022: Mitigation of Climate" IPCC Report presents a review of experiences of such policies reaching the conclusion that "the use of debt-for-nature and debt-for-climate-swaps is still very limited and not mainstreamed but offers significant potential if used correctly" (Shuckla et al., 2022, p. 1593).[8] Works from the IMF have also started studying the conditions for promotion of debt-for-nature swaps, highlighting how this policy is most useful "when the main constraint to climate investment is lack of fiscal space" (Chamon et al., 2022, p. 20). This point is crucial. Debt-for-nature swaps are a climate finance policy that fosters direct government action for environmental protection.

In the case of the Amazonia, the main deforestation reduction registered in the past decades is the case of Brazil between 2004 and 2012, dropping 83% of the deforestation rate in 8 years, preventing the clearing of 73,000 km² of forest (Assunção et al., 2015). This remarkable drop in deforestation was associated with the Action Plan for the Prevention and Control of Deforestation in the Legal Amazonia (PPCDAm), introduced in Lula's first government and carried on by his successor, Dilma Rousseff. The program, which was discontinued during Bolsonaro's administration and is being restored under Lula's new presidency, is an international example that state-control in partnership with local communities is the most efficient policy for forest preservation (Brenha Ribeiro, 2022; Quintanilla et al., 2022).

However, the Brazilian government spent BRL 1.03 billion each year in average between 2007 and 2014 with the PPCDAm (InfoAmazônia, 2022), more than half of all the money developed countries invested in the Amazon Fund during the first 10 years of funding (Brenha Ribeiro, 2022). Furthermore, the Amazon Fund, that is also being restarted under the new administration, has a more disperse funding strategy focused on REDD+ activities. The fund compensated for part of the money that had already been spent from the government but was not the main financing nor the main instrument that allowed for the preservation of the forest.

The new governments in South America have shown a clear political stance to invest state resources in the preservation of the largest rainforest in the planet, but they might lack the fiscal space to do so. Debt-for-nature swaps could be an important green finance policy in the current scenario.

KEY TAKEAWAYS AND POLICY IMPLICATIONS

1. The Amazon rainforest is close to a point of no return, but it is still possible to save 80% the forest.

2. Green bonds and REDD+, "green finance market mechanisms" fostered by World Bank and the UN, may present marginal benefits to preservation, but ultimately reinforce the actions of extractive sectors maintaining the economic logic behind deforestation.

3. Forest protection depends on extensive state command-and-control policies in partnership with local communities. Control over land appropriation is especially relevant. These control policies are highly expensive, making them harder to implement given the current indebtedness levels of countries in the region.

4. Initiatives like the "Loss and Damage" and Amazon Funds are important finance mechanisms that highlight North-South finance-environment relations. However, when these funds present financing schemes focused on REDD+, they might produce effects limited by the scope of these green market mechanisms, without allowing for more or better state action.

5. Debt-for-nature swaps have recently increased in popularity. The expansion of these policies to the protection of forests, currently pushed by local governments and indigenous movements in South America, could allow countries to align state environment protection with external debt stability. This might just be the "green finance" the Amazonia needs.

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NOTES

1 In this policy brief we use the terms "Amazon rainforest" and "Amazonia" interchangeably, while the first is the most common one used in international literature, the second refers to the term used by local communities both in their original languages and in English

2 For more on Lula's new policies for Amazonia, see Paraguassu (2023)

3 For more on Petro's proposal for Amazonia protection, see Rodriguez (2022)

4 For more on the biodiversity of the forest and its CO2 absorption, see Thomson (2020)

5 From 2008 to 2022, the World Bank has issued more than USD18 billion in green bonds and has given increasing incentives for the adoption of REDD+ networks (see Streck et al., 2021)

6 For an example of such critiques and more on this topic see Tordjman (2021).

7 On the negotiations for the loss and damage funding, see Åberg (2023).

8 Our research has found different terms for debt swap policies (e.g. debt-for-nature, debt-for-climate, debt-for-environment, etc.). While we have not found differences between the use of debt-for-nature and debt-for-environment swaps, the term debt-for-climate defined by Chamon et al. (2022) seems to include not only (1) debt cancellation and restructuring agreements conditioned to climate-related policies, but also (2) new loans or grants focused on environmental action. The proposals put forward by South American leaders and entities focuses on debt cancellation or restructuring and not on new loans and grants. For this reason, from here onwards we use the term "debt-for-nature" swap focusing on this first type of policies. Nevertheless, it is important to mention that climate loans create new external debt for receiving countries which can reinforce future external constraints and financial subordination.

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