Can Lula Save the Amazon? A Brazil Policy Analysis

Report prepared by Kaya Advisory for the Inevitable Policy Response

June 2022

Policy analysis by Kaya, Foreword by IPR

This short paper by Brian Hensley and Lara Gutierrez Santander at Kaya, a specialist climate policy consultancy, has been commissioned by the Inevitable Policy Response (IPR). Ahead of the October elections in Brazil, this paper assesses the potential future of deforestation in the Amazon. The views in this report do not necessarily reflect the views of the IPR research consortium.

IPR is a climate transition forecasting consortium commissioned by the Principles for Responsible Investment (PRI) whose aim is to prepare investors for the portfolio risks and opportunities associated with accelerating policy responses to climate change. The key outputs of IPR consist of the Forecast Policy Scenario (FPS) and the 1.5°C Required Policy Scenario (RPS). Both the FPS and the RPS are intentionally designed to be long-term, running out to 2050 and beyond. Both scenarios assumed emissions rose slightly out to 2025/6 when published last October 2021.

PRI commissioned the Inevitable Policy Response in 2018 to advance the industry's knowledge of climate transition risk, and to support investors' efforts to incorporate climate risk into their portfolio assessments.

This report is funded in part by the Gordon and Betty Moore Foundation through The Finance Hub, which was created to advance sustainable finance.

A research partnership led by Energy Transition Advisers and Vivid Economics undertakes the initiative's policy research and scenario modelling and includes Kaya, 2Dii, Carbon Tracker Initiative, Climate Bonds Initiative, Planet Tracker and Quinbrook Infrastructure Partners.

The consortium was given the mandate to bring leading analytic tools and an independent perspective to assess the drivers of likely policy action, and the implications on the market.

Leading financial institutions joined the IPR in 2021 as Strategic Partners including BlackRock, Fitch Ratings, Nuveen, BNP Paribas Asset Management and Goldman Sachs Asset Management.

IPR Foreword

The Inevitable Policy Response, a climate transition forecasting consortium, produces two climate scenarios: a Forecast Policy Scenario (FPS), in which global deforestation ends in 2030 and a Required Policy Scenario (RPS) in which deforestation ends in 2025.

The Brazilian Amazon is a hotspot of global deforestation, leading to approximately 0.18GT CO2eq of net emissions per year over the last 20 years.[1] This is equivalent to three times the annual emissions from New York City. Critically, illegal activities have been a key driver to deforestation. Addressing this must be a primary focus in any attempt to end deforestation.

The outcome of the October elections in Brazil at both the presidential and congressional levels are a pivotal moment.

This analysis by Kaya Advisory, commissioned by IPR, explains why recent trends in Brazilian deforestation rates, exacerbated by the tacit allowance of illegal activity makes a clear end to deforestation by 2025 virtually unattainable.

However, the re-election of Lula da Silva would make an end to illegal activity by 2030 (if not well before) and the achievement of net zero emissions from the Brazilian Amazon possible. A sympathetic Congress would provide a needed helping hand.

A re-election of Jair Bolsonaro means even 2030 as an end date for deforestation is under threat. He has shown no executive interest in curbing illegal deforestation, indeed it has accelerated under his administration. Legislation pending could make matters worse.

While not forming part of the analysis in this paper, efforts by private sector initiatives to address commodities that are related to deforestation are also helpful in either outcome. As would any international action in other countries.[2] The one potential positive is the emergence of a potential Brazilian carbon market. Under Lula, its development could potentially be slower but more focused on attaining environmental outcomes.

The RPS, and other low-overshoot 1.5°C scenarios are put under increased challenge by these findings. Other geographies and sectors, already stretched in these scenarios, are required to provide even more emissions reduction.

What constitutes an end to deforestation?

Illegal deforestation accounts for around 90% of Brazil's deforestation. Ending this, which in reality is an enforcement issue for the executive branch, is the core need. The Brazilian NDC talks of ending illegal deforestation. Our RPS and FPS models assume stable forest cover and emissions in the Brazilian Amazon by 2025 and 2030 respectively. This is net zero deforestation, which requires some afforestation as well, on top of ending the 90% illegal gross deforestation. We would note that from a Just Transition perspective finding alternatives for those whose livelihood depends upon clearing forest land must be considered in any comprehensive policy package.

Mark Fulton, Project Director Inevitable Policy Response

---

[1] Nature (2021) Amazonia as a carbon source linked to deforestation and climate change. Available at: Link

[2] Initiatives include engagement of traders, meat packers, brands, retailers and FIs, sustainable finance flowing toward Deforestation and conversion-free production (IFACC, deforestation-free investor initiatives) as well as regulatory action in key demand markets (EU due diligence law, US forest act, Chinese green value chain initiative)

Can Lula Save the Amazon? A Brazil Policy Analysis: Executive Summary

- A series of environmental legislative proposals, together dubbed the ‘death package’, awaits ratification in Brasilia. If these become law, deforestation rates could be locked into the future of the Amazon.
- This could be catastrophic, not only because the Amazon is the world’s pristine rainforest biome but also given its crucial role as a reservoir for carbon dioxide.
- Modelling by the Inevitable Policy Response (IPR) shows that a target of 1.5°C of warming would be in danger should net deforestation not end by 2025.[3] IPR’s Forecast Policy Scenario, which incorporates global policy action and currently forecasts 1.8°C of warming, requires an end to net deforestation by 2030.
- This situation makes the upcoming national general elections in Brazil (on October 2nd 2022) pivotal for climate ambitions. Currently this is a two-man race between former president Luiz Incio “Lula” da Silva, who leads in early polling, over the current president, Jair Bolsonaro.[4]
- The Brazilian Congress will also have a large bearing on the direction of policy making. As of today, Bolsonaro’s allies occupy key positions in Congress which can diminish or strengthen in upcoming elections. Importantly, if Lula wins, his land use position will be impacted by the need to govern with a broad coalition.
- Respective historical environmental records for the two candidates stand in stark contrast. Between 2003 and 2010, Lula’s policies helped engineer a historic fall in deforestation rates. Meanwhile, Bolsonaro, in actively undermining the executive institutions which punish environmental offenders, has overseen a dramatic increase in deforestation. We describe here the strategy and actions of each.
- The likelihood of the ‘death package’ passing before the election is low. After the election the odds for ratification rise but in a way that is nuanced and dependent upon the elections.
- Should Bolsonaro be re-elected for another four years, the chance of reaching net zero deforestation in that time frame is very low.
- In contrast, Lula being re-elected leaves open the possibility for net deforestation to stop by the end of the decade, especially if strong action is taken on illegal activities as in his previous administration.
- In either scenario, achieving net zero deforestation by 2025 is unlikely. This is because Brazil’s biggest problem at present is not the lack of robust legislation but enforcement against illegal activities. We dissect the nuance between federal legislative action and executive institutional action.
- Carbon markets offer a potential positive development for Amazon protection but international investors should bear in mind the different directions such a market could take. The development of a carbon market in Brazil is part of a wider long-term strategy of the private sector to support voluntary and regulatory initiatives to penalize commodities related to deforestation.

[3] Net zero deforestation allows for the clearance or conversion of forests in one area as long as an equal area is replanted elsewhere
[4] Estadão (2022) *Agregador de Pesquisas - Eleições 2022 - Estadão - Estadão*. Available at: Link

Contents

List of figures

1 Introduction

The survival of the Amazon as a global carbon dioxide ‘sink’ may rest upon the outcome of the Brazilian national election on October 2nd 2022.

As the world’s sixth largest emitter, Brazil is responsible for 3% of global greenhouse gas emissions (GHG), 62% of which comes from agriculture and land use change.[5] Official deforestation rates have been increasing since 2017, a period in which the country has been mostly governed by conservative president Jair Bolsonaro. According to a study published by Nature last year, fires and deforestation may have already transformed the Brazilian Amazon into a net *emitter* of CO2 rather than a sink.[6] This devastating development comes at a time when the Earth cannot afford to emit more than about 400 gigatons of CO2-equivalent emissions before the carbon ‘budget’ for 1.5°C runs out.[7] It is also feasible that the Amazon itself may reach a ‘tipping point’, when the rainforest biome transforms irreversibly into dry scrubland.[8]

Even with this already dire outlook, prospects for the Amazon may get even worse. If Jair Bolsonaro is re-elected as president, a docket of policies awaits potential ratification. These would severely impact the Amazon and jeopardize global climate goals by locking in deforestation in Brazil for years to come. This would undermine Brazil’s ability to achieve net zero deforestation by 2025, a necessary condition to limit the increase in global temperature to 1.5°C.[9] Indeed, it could challenge any significant reduction in global deforestation this decade.

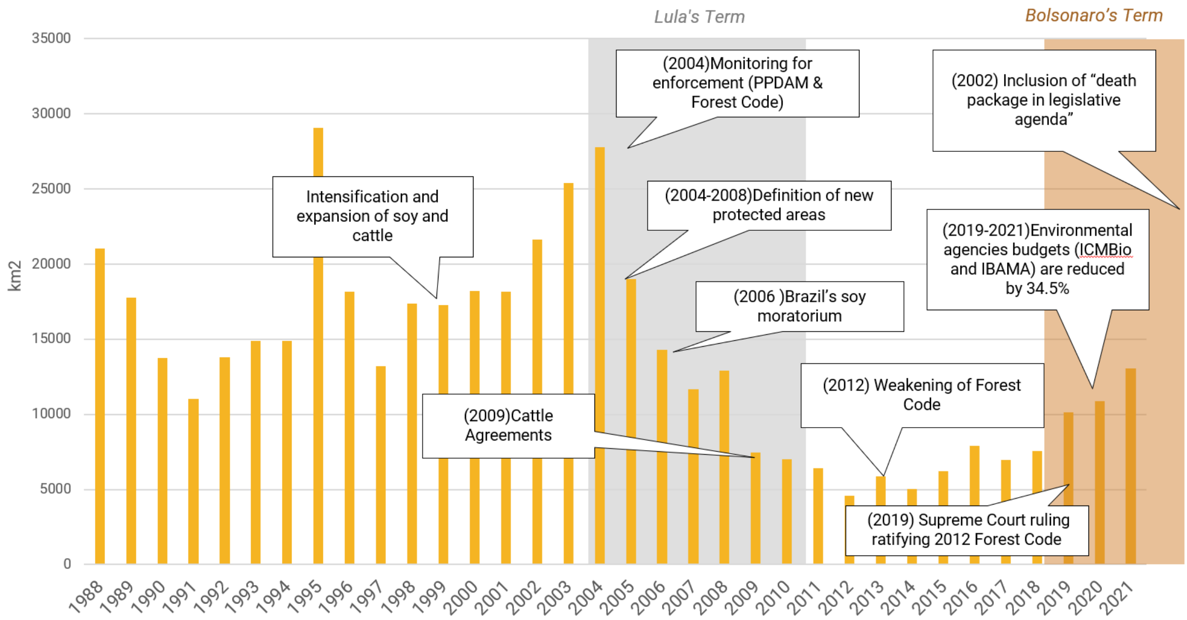
These bills would reduce the area of the Brazilian Amazon that enjoys special protection, relax requirements for environmental licensing, change the rules by which individuals can claim ownership of public lands, and open indigenous territories for mining and other emission heavy activities. It may not be surprising that a grouping of these policies has been coined a ‘death package‘ for the Amazon.[10] Bolsonaro’s re-election would increase the odds of these policies passing, thus putting a 1.5°C limit on global warming at risk. In this paper we analyze the three most consequential proposals of this so-called ‘death package’.

If elected, could Lula achieve net zero Amazon deforestation by 2025? We find it highly unlikely. The inertia of weakened environmental and compliance institutions will work against such an effort. Strengthening of these institutions and their enforcement could take several years. Some of the proposed legislation in the ‘death package’ could be reformulated to help slow illegal deforestation but this scenario would require a Lula stewardship, a willing Congress and on-the-ground follow through.

[5] University of Oxford (2020) Brazil Country Data. Available at: Link
[6] Nature (2021) Amazonia as a carbon source linked to deforestation and climate change. Available at: Link
[7] Mercator Research Institute on Global Commons and Climate Change (2022) Remaining carbon budget. Available at: Link
[8] Nature (2021) When will the Amazon hit a tipping point? Available at: Link
[9] According to IPR’s Required Policy Scenario to meet 1.5°C
[10] Mongabay (2022) Brazil Congress fast-tracks ‘death package’ bill to mine in indigenous lands. Available at: Link

Lula and his PT (Workers' Party) would be better for the prospects of the Amazon compared to Bolsonaro. Admittedly this is not a high bar, but Lula's track record in this regard is good. Figure 1 shows annual deforestation rates along with key moments:

Figure 1 Historical deforestation in the Brazilian Legal Amazon



*According to Brazilian law, the Legal Amazon comprises the sates of Acrem Amapá, Amazonas Maranhão, Mato Grosso, Pará, Rondônia, Roraima, and Tocantins. Biomes in the Legal Amazon include the Amazon biome which makes up 98% of the area, Cerrado (humid Savannah) and Pantanal (Wetlands)

Source: Kaya based on INPE data, 2021

Under Lula's presidency (2003-2010), Amazon deforestation rates fell from some of the highest levels ever to some of the lowest. Key to Lula's strategy was a strengthening of environmental and compliance institutions. In contrast, Bolsonaro has allowed a weakening of these same executive institutions, so much so that present-day compliance with enshrined conservation legislation is nearly non-existent. Further, during his term he has actively appointed in his cabinet individuals that have been openly hostile towards tackling climate change, such as: Ernesto Araujo[11], Minister of Foreign Affairs, and Ricardo Selles, who had to step down in June last year amid an investigation into allegations he obstructed a police probe into illegal logging.[12]

In this paper, we look at what has happened under Bolsonaro compared with the Lula presidency period. We attempt to convey an important distinction between legislative policies (laws as they are written) and executive policies (the institutions and processes enforcing these laws). The latter is just as, if not more, important than the former. Based on predictions for the election[13] we discuss what either Bolsonaro or Lula could mean for future rates of deforestation. We analyze policy legislation and proposals at the Federal level, not only the most consequential proposals in the 'death package' but also those proposals that could be beneficial for the Amazon. For example, a robustly structured carbon market could be key to unlocking much-needed financing for land protection but would also require a rebuilding of international confidence in Brazil's credibility when it comes to protecting the Amazon.

[11] Science (2019) Brazil's new president has scientists worried. Here's why. Available at: Link
[12] https://edition.cnn.com/2021/06/24/americas/brazil-ricardo-salles-resigns-intl-hnk/index.html
[13] Estadão (2022) *Agregador de Pesquisas - Eleições 2022 - Estadão - Estadão*. Available at: Link

We see the following scenarios as plausible:

- *Bolsonaro wins*: continuation of current anti-environment agenda supported by high global food prices, domestic inflation and a rural political base but mitigated by carbon market development, international pressure, Brazil's Supreme Court and a discernable pro-environment shift in domestic agri-business psyche. No chance for net zero deforestation to be achieved by 2025 and only a faint possibility of arresting it by the end of the decade. Carbon markets develop at high speed but with low quality.

- *Lula wins:* pro-environment ethos reemerges and conservation of the Amazon becomes a priority. Institutions are once again strengthened and enforcement powers reinstalled. Achieving net zero deforestation by 2025 is unlikely but significant progress by 2030 is possible. Carbon markets develop slowly but with quality.

These outcomes will be nuanced according to the results of the parliamentary elections, which are difficult to predict. A victory by Lula in October's national election is critical and necessary, but not sufficient, to have a chance of achieving net zero deforestation in the Brazilian Amazon by 2030. This paper attempts to disentangle crucial policy intricacies.

2 Bolsonaro's and Lula's Record on Deforestation

The rise of deforestation in recent years is linked with Bolsonaro's systematic dismantling of Brazil's compliance frameworks for forest protection. His policies have loosened environmental controls and weakened several environmental agencies. During his term, deforestation in the Brazilian legal amazon has increased by at least 70% using data up to 2021. [14]

Symptomatic of the hollowed-out ability of environmental compliance agencies, approximately 98% of the deforestation alerts received by Brazil's monitoring system between 2019 and 2020 were not investigated by the competent authorities.[15] Even for the few cases that are investigated, sanctions are not enforced properly. For example, even if a fine is applied to a transgressor, the recipient can choose to enter a complex "reconciliation" process. The fine will be rescinded if the authorities cannot complete a series of procedures within a time limit. According to the Brazilian Institute of the Environment and Renewable Natural Resources (*IBAMA)*, nearly 60,000 fines will expire by 2024. This is equivalent to more than half of all the fines issued by the government between 2013 and 2021.[16] Lack of consequences have emboldened criminals who grab and clear land with near impunity. Evidence of this is shown by an alarming 94% of deforestation in the Brazilian Amazon and *cerrado* being illegal.[17]

Early in Bolsonaro's term, Brazil watered down its international climate commitments. Eventually, international pressure and efforts led to more progress heading into the Glasgow COP. On 7th April 2022, Brazil submitted to the UNFCCC Secretariat an update of its Nationally Determined Contributions (NDC).[18] An NDC is a voluntary plan submitted by signatories of the Paris Agreement which describes how climate ambitions are to be achieved. This update commits to:

- 37% reduction in greenhouse gas emissions by 2025
- 50% by 2030, compared to 2005
- a pledge to reach climate neutrality by 2050
- eliminate illegal deforestation by 2028

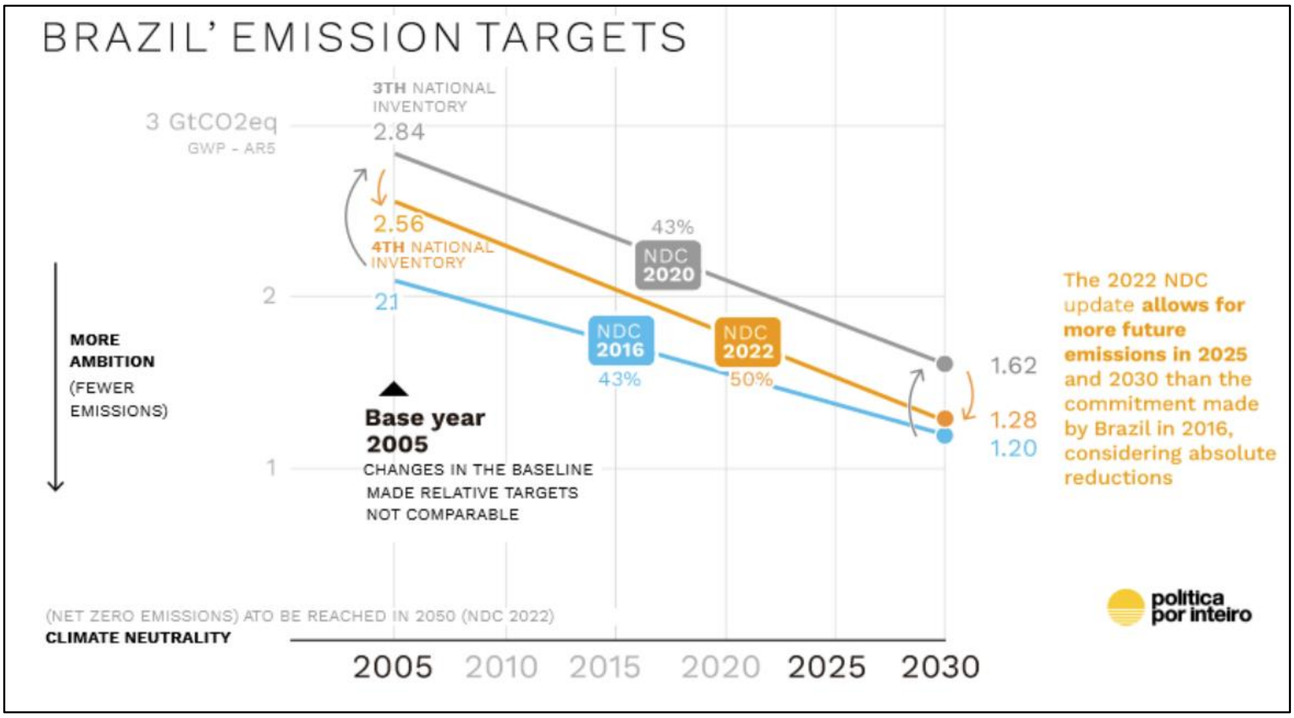
This was a vital step but deeper analysis reveals a wrinkle. Even though the new NDC is more ambitious than the first update submitted by Bolsonaro's administration back in 2020, preliminary analysis by Climate Action Tracker of Brazil's NDC suggests that the new update does not represent an increase in ambition compared to Brazil's first NDC, submitted in 2016.[19] According to a report by *Política por Inteiro*, a Brazilian think-tank, the new NDC would raise the 2025 limit for Brazil's CO_2eq emissions by 314 million tonnes, and the 2030 limit by 81 million tonnes, compared to Brazil's 2016 submission.[20] This is because the government has increased the estimate of the baseline scenario (see Figure 2).

It is important to note that these actions are representative of the federal position towards tackling deforestation. The picture at the state level is mixed, with states like Pará and Acre having invested significant resources to address emissions from deforestation over the past few years.

---

[14] INPE (2022) Deforestation rates in the Legal Amazon. Available at: Link
[15] Marcondes G Coelho-Junior (2022) Unmasking the impunity of illegal deforestation in the Brazilian Amazon: a call for enforcement and accountability. Available at: Link
[16] The Brazilian Report (2022) Tens of thousands of environmental fines set to expire in Brazil. Available at: Link
[17] Valdiones et. al (2021) Illegal Deforestation and Conversion in the Amazon and Matopiba: lack of transparency and access to information. Available at: Link
[18] UNFCCC (2022) NDC Registry. Available at: Link
[19] Climate Action Tracker (2022) Brazil 2022 NDC update. Available at: Link
[20] Politica por inteiro (2022) NDC: Analysis of the 2022 update submitted by the Government of Brazil. Available at: Link

Figure 2 Brazil's NDCs



Source: Politica por Inteiro 2022, UNFCCC NDC Brazil 2022

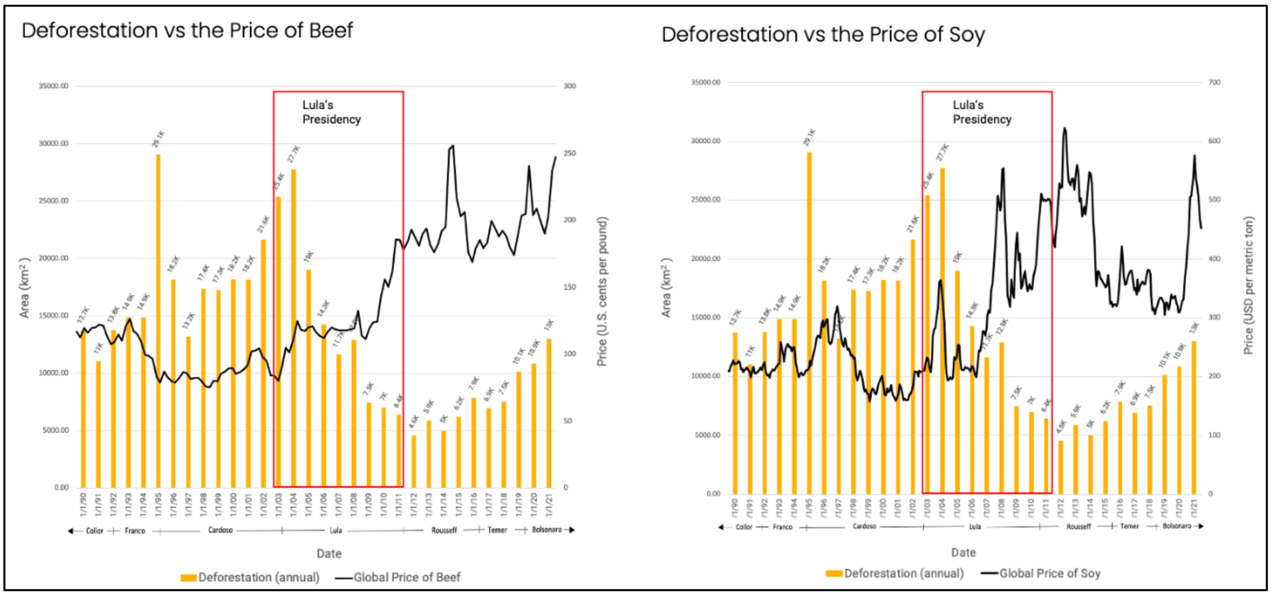
Under Lula, deforestation rates in the Amazon declined by 72% (Figures 1 & 3). The scale of this decline is even more remarkable when using nominal amounts rather than percentages. When Lula took over, nearly 30,000 km^2 was being deforested per year which was the second highest amount on record. At the end of his term this amount was less than 10,000 km^2. How did he accomplish this?

Broadly, he passed important pieces of environmental legislation, empowered environmental agencies with enforcement capabilities, insured cooperation within the government and changed incentives from deforestation. Specifically, a three-stage "2004-2015 Action Plan for Prevention and Control of Deforestation in the Legal Amazon" was implemented:

- **Phase 1:** expansion of the number of protected areas and implementation of several 'command-and-control' policies to improve monitoring capabilities and enforcement of forest protection.
- **Phase 2:** improvement in cooperation between federal agencies, states and local governments. In this phase, the government modified the economic incentives associated with deforestation such as the rural credits for agricultural producers.
- **Phase 3:** building of sustainable production chains and encouraging the intensification of agricultural production rather than its expansion.

Figure 3 shows how these policies managed in the face of rising prices for food, specifically beef and soy which are large exports for Brazil as well as being two of the largest contributing commodities to deforestation. It is a testament to the legislative and institutional approach of Lula that Brazil managed to decouple the legal Amazon's deforestation rates from the prices of beef and soy. It is notable that Lula's strategy also allowed deforestation rates to remain low even after he left office. This provides clear evidence that robust policy frameworks and enforcement can achieve reductions in deforestation rates despite high prices of deforestation-linked commodities. It is important to note, that even under Lula's interventionist measures, deforestation rates declined to ~6.000km^{2,} but never zero.

Figure 3 Deforestation vs prices of beef and soy



Source: Federal Reserve Bank of St. Louis (2022), elaborated by Kaya

Lula was not without blemishes when it comes to the environment. He was widely criticized for channeling large sums of money from Brazil's development bank into his "national champions" of the beef industry, beef being one of the biggest drivers of deforestation. [21]

[21] Mongabay (2016). Giant development bank's social and environmental safeguards called into question by critics. Available at: Link

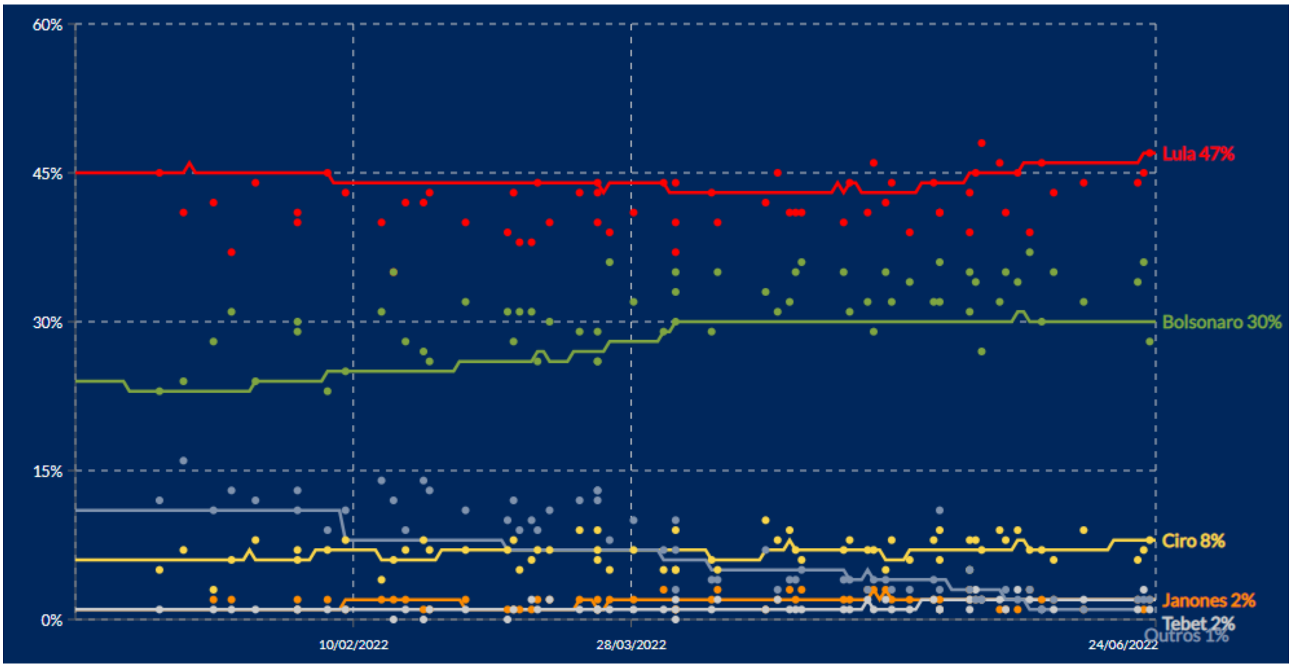
3 General Elections – An Opportunity

On 2nd October 2022 Brazil will hold elections for the next president, vice-president and National Congress. The results of the election could be game-changing for deforestation and climate policy.

For those unfamiliar with the Brazil system of government, it is very similar to that of the United States: A president is elected every four years. There is a lower chamber equivalent to a U.S. Congressional 'House' called the Chamber of Deputies and an upper chamber 'Senate'. Unlike the United States, where just two parties dominate, there are over 30 parties in Brazil. This presents a different coalition-building challenge. The main parties are the Workers' Party (PT), the Brazilian Democratic Movement (PMDB), the Liberal Party (PL), and the Progressistas (PP). In many cases parties lack ideological consistency and it is common for parliamentarians to switch party allegiance.

As of the time of writing, political pundits are just beginning to prognosticate on the campaign. Viewed currently, the election will be a two-way race between Bolsonaro and Lula at the presidential level. Lula is leading in most early polls by approximately 17 percentage points (Figure 4).[22] Political forecasts give Lula a roughly 70% chance of returning to the presidency.[23] Since both Bolsonaro and Lula have high rates of rejection, it is not inconceivable that a third candidate might challenge. One example could be Senator Simone Tebet, who has recently secured the support of one of the most important opposition parties in Brazil(the PSDB), and has a similar position to Lula regarding the Amazon.[24] So far, the chances for Lula look good but not assured and the election is still far away.

Figure 4 Aggregator of polling results data



Source: Estadão (2022)

[22] Estadão (2022) *Agregador de Pesquisas - Eleições 2022 - Estadão - Estadão*. Available at: Link
[23] Short, J., (2022) Brazil Presidential Election Odds: Bolsonaro Closing The Gap On Lula. Gambling.com. Available at: Link
[24] CNN Brasil (2022) Tebet prevê revogar decretos ambientais do governo. Available at: Link

The election will also be an opportunity for Brazilians to partially renew the Congress with every member of the Chamber of Deputies and 1/3rd of the Senate up for re-election. A Lula government could regain power in Congress, at least in the House, which has been dominated by Bolsonaro's supporters since 2019. With seven parties supporting him[25], Lula has the broadest coalition that he has ever had running for office.[26]

The state of the economy, inflation and unemployment are likely to be the most important topics for voters. Since 2019 Brazil has performed poorly in all of these. Inflation has tripled during Bolsonaro's administration, and more than half of Brazilians now suffer from food insecurity[27],[28]. Furthermore, the looming food crisis exacerbated by the COVID-19 pandemic, a war in the Ukraine driving a breadbasket and energy shock will play against the incumbent (while also putting pressure on Brazil to increase its agricultural exports).

A highly polarized and controversial election appears likely. Bolsonaro's repeated attempts to question the transparency of Brazil's electronic voting system, along with his criticism of electoral authorities, and his son's declaration that Brazil may face "political instability", have raised concerns that he might not accept the outcome of the election. We would put the probability of this as low but it cannot be ruled out. For his part Lula was famously convicted in the *Lava Jato* (Car Wash) bribery scandal and is only recently able to run for political office after a Supreme Court judge annulled the ruling last year on grounds of jurisdiction.[29]

[25] Worker's Party (PT), Communist Party of Brazil (PCdoB), Green Party (PV), Sustainability Network Party (Rede), the Socialism and Liverty Party (PSOL) and the Brazilian Socialist Party (PSB) and Solidaridade.
[26] Brasil de Fato (2022) Com sete partidos, Lula terá candidatura mais ampla desde 1989. Available at: Link
[27] The Economist (2022) Brazil's 10% inflation is eroding incomes and the president's popularity. [online] Available at: Link
[28] France 24 (2022) 'Historic setback' for Brazil as hunger surges. [online] Available at: Link
[29] BBC News (2021) Lula: Brazil ex-president's corruption convictions annulled. Available at: Link

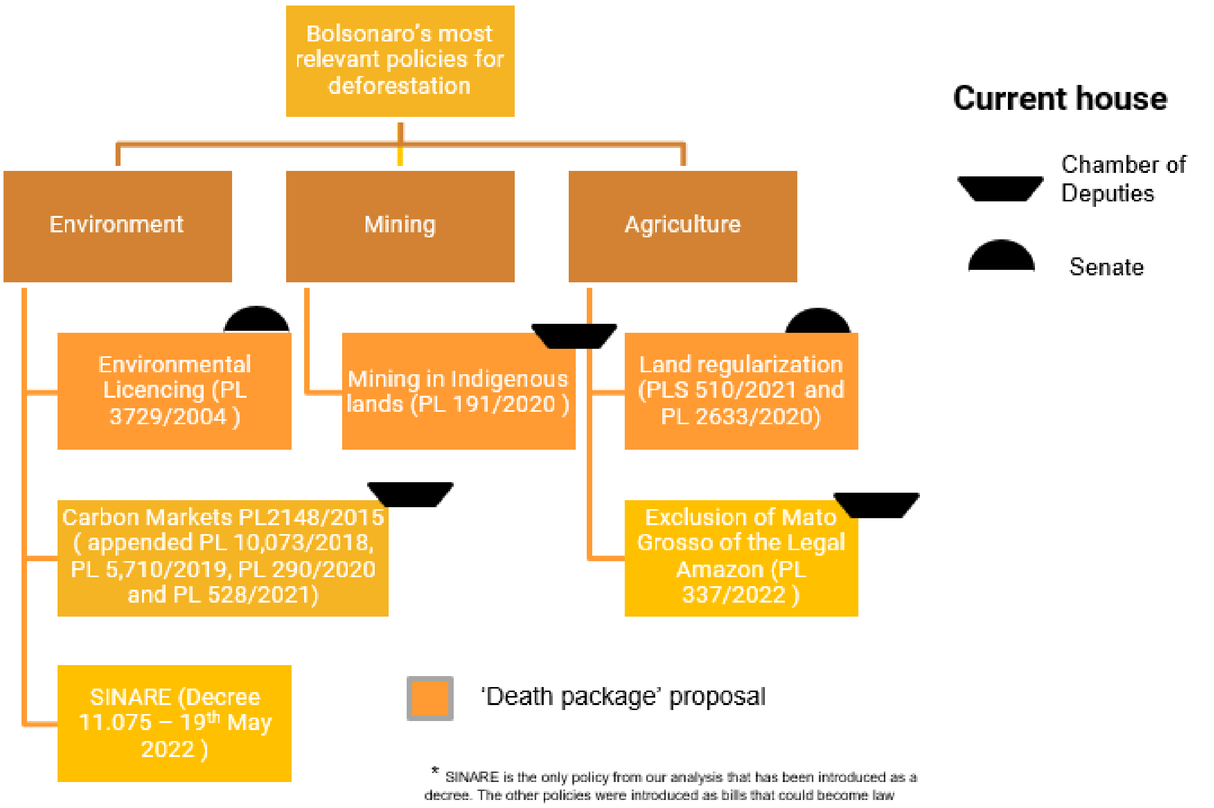
4 A Look at Federal Policies in the Pipeline

During his term, Bolsonaro and his political allies have prioritized several legislative proposals and policies with significant implications for deforestation. The subjects of these proposals are contentious and have, in some cases, been percolating for years.

In February the federal government published its list of priority legislation for 2022 which contains previously introduced proposals that should be considered and prioritized by Bolsonaro's supporters in Congress. The collection of 45 pieces contains the previously mentioned group of proposals that NGOs and opposition groups have nicknamed the 'death package' as a way of illustrating the magnitude of environmental and social damage they could cause.

At the same time, the current administration has also sought to advance the development of a carbon market in Brazil, which could have a positive influence on the Amazon, through several pieces of legislation and a decree that was recently published. An overview of these policies is shown in Figure 5.

Figure 5 Overview of Bolsonaro's most relevant policies for deforestation



Source: Kaya, 2021

A detailed assessment of these legislative pieces is provided in the Appendix where we look at the content, implications and current status of each. A brief description follows here:

- Environmental Licensing: exempts and relaxes environmental licensing requirements for various types of projects
- Mining in Indigenous Lands: allows for exploitation of mineral, hydrocarbon and water resources in indigenous lands
- Land Regularization: relaxes conditions by which individuals can claim ownership of public lands
- Mato Grosso: excludes the state of Mato Grosso from the Legal Amazon, which represents 18% of the total area of the Legal Amazon. The state holds approximately 7% of the Amazon biome[30],[31]
- Carbon Markets Package: Sets up and regulates an emissions reduction market, among other provisions
- *SINARE:* A system parallel to the *Carbon Markets package* by the executive that creates the National Greenhouse Gas Emissions Reduction System (Sinare), with the aim of regulating carbon emissions and credits in Brazil. It obliges sectoral organizations to draft reductions plans in line with Brazil's NDC

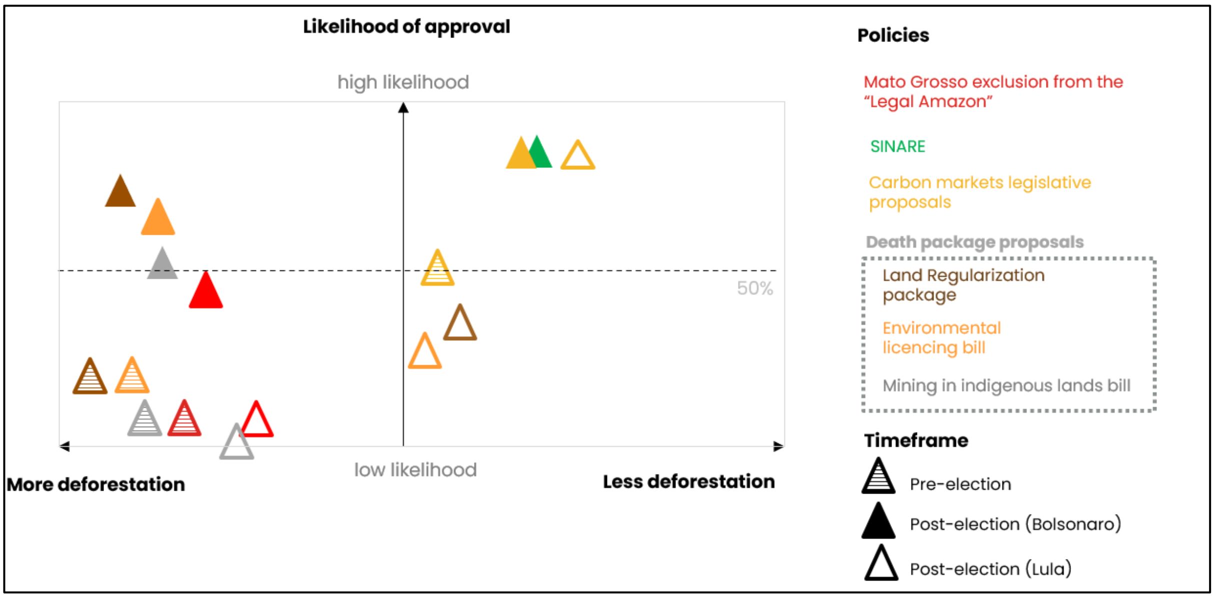
There is a multitude of factors that could affect these policies. Determining how likely it is that each one is enacted, and in what form, is extremely difficult. For example, the *Environmental Licensing* and *Land Regularization* bills attempt to resolve some legitimate issues such as providing farmers with access to finance and reducing bureaucracy in the environmental licensing system, which if done correctly (i.e. under Lula) could actually help the Amazon. But by and large, as proposed and certainly under Bolsonaro's stewardship, enactment of the 'death package', and the *Mato Grosso* legislation would have significant adverse consequences.

Figure 6 is our attempt to provide some illustration of both the likelihood of approval for these key federal policies as well as the potential positive or negative impact on the Amazon.

We have evaluated the proposed legislation based on the premises that 1) the proposals would be evaluated in their current version under a Bolsonaro administration and (2) what the legislation could look like under a new administration with a new Congress that mirrors the presidential result after the election. The impact of the legislation is illustrated in the x-axis.

[30] The Amazon biome covers about 50% of Matto Grosso's territory.
[31] Mongabay (2022) Brazil bill seeks to redraw Amazon borders in favor of agribusiness. Available at: Link

Figure 6 Assessment of the impact and likelihood of approval of Bolsonaro's agenda



Source: Kaya, 2021

Our illustration shows the 'death package' policies having only a slight chance of passing ahead of the election.

The proposals would need to be approved by the end of July, when senators go back to their states to work on their campaigns, and the National Congress starts a break that lasts until November. It is likely that both Bolsonaro and parliamentarians are reluctant to approve controversial proposals as most of them are running for reelection, particularly in the Senate where a stronger consensus around these policies will be needed for approval. Therefore, the fate of most of these proposals will depend on the results of the election.

In the scenario where Bolsonaro wins, he will probably continue to push forward with his current agenda, including these draft proposals - emboldened by reelection and motivated to deliver on the promises made to his rural conservative base, mainly supported by small land-owners. Allowing the acquisition and usage of deforested land will be popular for this key constituency. Legislative impact in terms of adopted rules and relaxations will be more likely during his first year after the election when he would have maximum political capital.

However, even in this case there is no guarantee that the proposals would move forward as Bolsonaro would face increasing pressure to tackle deforestation from multiple sides, including:

- International and portfolio investment increasingly concerned and driven by ESG compliance
- Large domestic agri-business who are realizing the risk of being associated with deforestation
- International institutions advocating in the context of Brazil seeking membership of the OECD and ratification[32] of the EU-Mercosur trade deal
- The domestic judiciary who has already challenged Bolsonaro's environmental policies[33]
- More domestic politicians and businesses who are realizing that looking after the environment offers opportunity, not least in the form of access to international financing

---

[32] International Federation of Human Rights (2022). Brazil must improve track record on environment and human rights as a condition for OECD membership. Available at: Link

[33] Carvalho, A., (2022) Brazil Court Reviews Bolsonaro's Environmental Policies. Human Rights Watch. Available at: Link

A simplified guess as to the likelihood of these bad policies passing -in aggregate- is currently around 50% if Bolsonaro is re-elected (with a large margin of error). Conversely, the chance of passing in a bad form is low if Lula wins because he could either dilute or veto them.

Of the polices which would increase deforestation, we would rank as follows from worst/most impactful to least impactful:

1. Land Regularization
2. Environmental Licensing
3. Mining in Indigenous Lands
4. The exclusion of Mato Grosso from the Legal Amazon

In the end it would all depend on how discussions in Congress unfold under the different administrations.

The *Land Regularization* package is the most contentious issue. Among other changes, the package extends the deadline that allows invaders of public land to be granted a title, which would be the second modification of such nature in less than four years. The regulation would threaten at least 19.6m hectares of public land and could generate deforestation of up to 16,000km^2 by 2027.[34] The risk is that these changes would incentivize even more land grabbing by increasing the expectation of future regularization reforms.

A 'good' version of the bill might result in an outcome which provides both clarity to small landowners who are currently denied access to funding and data for authorities to identify infractions and punish them. However, this positive effect would require efficient enforcement, the conditions for which are lacking at this moment.

The changes proposed to *Environmental Licensing* would also be detrimental to the Amazon as it would exempt many high impact projects in the agriculture and infrastructure sector from producing an Environmental Impact Assessment and mitigation plans. These are the main tools that regulators use to oversee compliance of environmental regulations. In addition, the regulation would weaken the control over the deforestation induced by the construction or improvement of roads that cross well preserved areas by eliminating the need to assess and mitigate the indirect impacts generated by the project.

This is a big issue because roads are a major indirect driver of deforestation given that they enable access to others intent on land grabbing and mining. Although we did not find resources that quantify the impacts of this proposal on deforestation, we expect it to be significant.

Even though the *Mining on Indigenous Lands* bill and *Exclusion of Mato Grosso from the Legal Amazon* bill would also have significant impacts on deforestation, we expect them be more localized than the *Land Regularization* package and *Environmental Licensing* which would cause more widespread and hence, harder to mitigate impacts. According to one study, the *Mining on Indigenous Lands* bill could increase deforestation in indigenous lands by 20% in addition to the impact it would cause to more than 222 indigenous groups.[35]

Excluding Mato Grosso from the Legal Amazon would also be detrimental for deforestation particularly for the *cerrado* biome which, according to one study, could lose up to 100,000km^2 due to the measure.[36]

On the positive side, two policies currently under discussion could help slow deforestation.

[34] World Wildlife Fund (2021) Legislative Package that Threatens the Amazon on the Table of the Brazilian Senate for 2022. WWF. Available at: Link.

[35] One Earth (2020) Proposed Legislation to Mine Brazil's Indigenous Lands Will Threaten Amazon Forests and Their Valuable Ecosystem Services. Available at: Link

[36] Observatório do código florestal (2022) Análise do Projeto de Lei no 337/2022. Available at: Link

The *carbon markets* legislation has an increasing chance of progressing before the election, at least through the Chamber, as well as after. We discuss this in more detail below. The other positive (decree) is the SINARE whose exact form would likely only be enacted by Bolsonaro.

In sum, from a federal election and policy perspective, a worst-case scenario (Bolsonaro and death packages) is less likely than an improvement scenario (Lula), when adjusting for probability using early election polls. The policies being discussed could have momentous consequences but the devil lies in the details, and the impact will be determined by who is president and indeed, the shape of the Congress.

5 A New Carbon Market in Brazil – The Missing Piece

The Brazilian government issued a decree in May initiating the first formal steps towards carbon pricing and a potential carbon market. The decree stipulates the broad intention of introducing a national system for GHG reductions and sectoral emissions reductions plans. These emission reduction plans are to be developed by sectoral organizations covering nine sectors such as industry (including pulp and paper), agriculture and urban transport. Other land use sectors such as forestry are not included. The decree leaves open many details that will need to be clarified by further legislation, specifically on the pricing mechanism. The decree also creates the figure of Carbon Stock Units (CSU), an asset based on projects that could provide an incentive for preserving forests. However, the decree does not provide details about the fungibility of CSUs with emissions reductions and their environmental integrity.

On the same day that the decree was published, deputy Carla Zambelli[37] issued her final report on a parallel regulated carbon markets proposal (PL 528/2021) that has been widely discussed among stakeholders including private sector, government and experts. However, the proposal would not cover emissions from agriculture.[38] This competition between the legislature and the executive provides clear evidence that momentum for a carbon market in Brazil is building.

The interest in introducing a Brazilian carbon market extends beyond the echelons of Brazilian politics. Large Brazilian firms are coming under increasing pressure from external investors to commit to reduction targets. This has in turn fueled discussions in business circles on the looming threat from potential Carbon Border Adjustment Mechanisms (CBAM), for instance in Europe, which a Brazilian carbon market could preempt. The Bolsonaro government's close ties to Brazilian business seems to have paved the way for the idea of a carbon market, leading the government to prefer a market-based model over a tax-based one.

Private sector advocacy for carbon pricing is part of wider, long-term comprehensive strategy by various private stakeholders involved in the supply of deforestation-related commodities, to stop deforestation. Firstly, this has been done through voluntary initiatives to promote the flow of sustainable finance towards tackling deforestation and conversion-free production such as the Innovative Finance for the Amazon, Cerrado and Chaco (IFACC) and other deforestation-free investor initiatives. Secondly, stakeholders have invested significant resources to promote regulatory action in key demand markets such as the EU, with the EU due diligence regulation for deforestation-free products; in the US, with the US Forest Act; and in China, with the Green Value Chain initiative.

Yet, part of the private sector is concerned about the legal uncertainty created by the SINARE decree. The contention is that the instrument leaves various aspects up in the air and could be easily modified by the executive without a proper consultation process involving Congress and wider civil society groups. In their view, this could potentially deter some of the long-term investments needed for decarbonization.[39] As international companies and investors face increasing scrutiny on their own carbon offset purchases, they will need more than assurances from a Bolsonaro government that a carbon market will offer quality and assurance of protection for nature. Under Bolsonaro, we expect to see a speedy adoption but with few details regarding mandatory targets and environmental integrity. This is evidenced by the wording in the decree itself.[40]

---

[37] Right-wing deputy and appointed rapporteur of the bills.
[38] Carla Zambelli (2022) Carla Zambelli apresenta substitutivo que Cria o Mercado de Carbono. Available at: Link
[39] CEBDS (2022) Posicionamento do setor empresarial brasileiro sobre o mercado regulado de carbono nacional. Available at: Link
[40] Federal Government of Brazil (2022) Decree no. 11.075, of May 19, 2022. Available at: Link

There is a subtle conundrum to international investors looking to get involved with Brazilian carbon markets. Bolsonaro would try to create the conditions that enable the development and issuance of large volumes of carbon credits, but they will be worth little without a foundation of solid legislation and strong enforcement.

Conversely, under Lula we expect a slower rate of adoption and higher focus on environmental integrity. Lula is likely to take direct action to address the root causes of deforestation, but his lack of prioritization for market initiatives might leave international buyers of credits scrambling for product. This is supported by the lack of an explicit mention of carbon markets in a recent document published by his coalition, despite the fact that Lula is running in a coalition with former São Paulo governor Geraldo Alckmin, who is a member of the PSB party, which has a favorable policy outlook toward market-based instruments such as carbon markets[41].

[41] Juntos pelo Brazil (2022) Diretrizes para o programa de reconstrução e transformação do Brasil. Available at: Link

6 The Lula Impact

We have already examined Lula's credentials in managing the huge success of slowing deforestation. Below, we seek to analyze the stance to be expected from a new Lula presidency on the policies assessed in section 3.1. We also try to point to additional policies Lula might look to implement.

Lula – how might he deal with the current proposed policies

As a left-wing former union leader, Lula would likely not want to undermine efforts aimed at putting food on the tables of poor families dependent on agriculture and mining industries. Particularly, in the current context of food insecurity coupled with inflation, the Brazilian agricultural lobby has been quick to highlight Brazil's ability to feed the world in its hour of need.[42]

Yet, at the same time, Lula is highly likely to try to overturn Bolsonaro's anti-environment agenda. Doing so provides an opportunity for Lula to capitalize politically on undoing some of Bolsonaro's actions that are seen as responsible for Brazil's isolation in the international arena, impacting the Brazilian economy.

On 6th June 2022, in one of the first meetings of his campaign, Lula said: "we will have to kill ourselves to have to do what we have already done" referring to Bolsonaro's environmental policies. He also highlighted that: "World trade is demanding a different position from Brazil. The environmental issue has to be seen as a model of development, like growing the economy with the tree standing".[43]

In the event that some of the legislative proposals currently being negotiated are approved by both chambers and sanctioned before Bolsonaro leaves office, Lula could bring a legal case before the Supreme Court through a type of lawsuit known as a Direct Action of Unconstitutionality. Several analysts have already flagged constitutional conflicts, in particular with the *Environmental Licensing* bill and the *Land Regularization* package.

However, this would certainly be a slower process. If the proposals have not been passed when Bolsonaro is president, and are approved by both houses during Lula's term, he can veto them in whole or in part. The veto could potentially be overridden by a majority quorum of all senators and deputies in Congress. In this case, Lula would have to secure a majority in both houses.

As of today, Bolsonaro's allies occupy key positions in Congress with the rural caucus holding strong positions in both chambers, especially in the Chamber of Deputies.[44] This may also be the case after the election.

As Lula himself has noted: "It is impossible to imagine that we will make the changes that we need to make, if we do not elect a president and - together with a president elect - better quality senators and better quality deputies".[45]

[42] Reuters (2022) Brazil meat firms could replace Ukrainian, Russian suppliers as war rages on. Available at: Link
[43] Correo Braziliense (2022) Lula diz que vai reconstruir política ambiental "destruída" por Bolsonaro. Available at: Link
[44] Globo Rural (2019) Bancada ruralista tem peso para definir eleicoes na cámara e senado. Available at: Link
[45] Politica Real (2022) Lula disse que se eleito não admitirá garimpo em terras indígenas e que o Brasil voltará a ter protagonismo ambiental. Available at: Link

7 Lula – Additional Measures?

As Brazil's biggest problem is not the lack of legislation but lack of robust enforcement, reversing the legislative proposals mentioned above would be necessary but not sufficient for Brazil to reach net zero deforestation. If Brazil doesn't manage to safeguard its current regulatory framework from Bolsonaro's agenda, any work done to improve compliance structures on the ground would be worthless.

First, a Lula presidency would have to roll back many of Bolsonaro's policies. Often, these have been made through executive actions such as ordinances, normative instructions and decrees that can be overturned by Lula with a single signature. These low-hanging fruits could provide a Lula government with quick wins both politically and environmentally.

Lula would also have to refund and restaff the environmental institutions that Bolsonaro dismantled during his term. These include the federal agencies within the *Ministry of the Environment* such as the *IBAMA* and the *Chico Mendes Institute for Biodiversity Conservation (ICMBio)*. According to data from protection agencies, the government in Brazil would need ten times more workers to properly enforce environmental controls.[46]

In addition, Lula would also have to restore the power back to Brazil's indigenous affairs agency *FUNAI*. It can be seen that Lula's previous impact was felt within the first two years of his term. This time, he would be confronted with the Bolsonaro appointees so progress could conceivably take longer and the full impact of such reforms might take years to develop.

Moreover, Lula would have to increase the presence of the rule of law in the Legal Amazon territories and strive to guarantee the safety of its functionaries. The recent disappearance and murder[47] of an ex civil servant of *FUNAI* and a British journalist, after having received threats from illegal loggers and miners in the Amazon illustrate the complexity of the public order situation on the ground. In order to address this issue, Lula would need to strengthen the capacity of the security forces and the judicial system to punish these criminal networks.

On the 21st of June 2022, "*Juntos Pelo Brasil*", Lula's seven-party coalition, published the guidelines for its programme for government, "*Diretrizes para o programa de reconstrução e transformação do Brasil*". The document states that a Lula government would commit itself to combatting environmental crime, fighting illegal deforestation, and promoting zero net deforestation through the restoration and reforestation of biomes. The document also states that illegal mining will be fought hard and that the coalition will harmonize the protection of ecosystems at risk through the promotion of sustainable development. However, the document does not set a target year for achieving net zero deforestation.

Further, the coalition also commits to protect rights and territories of indigenous communities and ensure the ownership of their lands, preventing predatory activities that can harm their rights.

In the document the coalition also commits to fulfill the commitments made back in 2015 at COP21 and go further. This provides a sign that under Lula Brazil could submit a new update of its NDC that complies with the non-regression principle of the Paris Agreement, with greater ambition than Brazil's first commitment. This could include not only setting up more ambitious GHG emission reduction targets, but also increasing the ambition for reducing deforestation and increasing restoration targets.

---

46 The Brazilian Report (2022) Tens of thousands of environmental fines set to expire in Brazil. Available at: [Link]()
47 Financial Times (2022) Suspect admits killing UK journalist and local researcher in the Amazon. Available at: [Link]()

Prior to these proposals, signs of greening were already visible in his campaign:

- In a recent visit to an indigenous protest camp in Brasilia, he promised to stop mining in indigenous reservations and to continue delimitating new indigenous territories.
- In a political coordination meeting on 6th June, 2022, he said that he would restore Brazil's international prestige in the environmental arena.[48]
- His political supporters have signaled that Lula could reopen the Amazon Fund, which was formerly used by countries to pay Brazil to monitor and combat deforestation to fight climate change and biodiversity loss[49]. The fund was unilaterally closed by Bolsonaro in 2019 after Germany and Norway suspended their donations due to accelerating deforestation and failure to comply with the terms. However, in order to attract new donations, Brazil would have to restore confidence in the ability to reduce deforestation rates, something that will take time.

[48] Stuckert, R., (2022) Lula E Meio Ambiente: Lula disse que se eleito não admitirá garimpo em terras indígenas e que o Brasil voltará a ter protagonismo ambiental. Available at: Link
[49] Ibid

Conclusions

The current administration is promoting a set of policies that could effectively lead to irreversible harm to the Amazon and remove the possibility of Brazil reaching net zero deforestation by 2025.

Given the role of the Amazon, such developments would be globally significant. However, the current political environment makes the approval of most of these proposals unlikely ahead of the October national elections.

If Bolsonaro wins, particularly with the current make up of Congress, we expect him to continue advancing his anti-environment agenda, especially given the acute food supply crisis and inflation. All this in spite of the pressure from the international community and a growing group of domestic business and politicians who are recognizing the benefits of environmentally friendly policies.

More Bolsonaro implies no chance for net deforestation to end by 2025. Achieving net zero deforestation by 2030 remains possible but very challenging.

If, as polling suggests, Lula wins, it is unlikely that he will be able to stop deforestation by 2025 given the time it would take to strengthen institutions, enforcement, and implement the on-the-ground measures necessary to address the illegal dimension of deforestation.

Yet, a Lula presidency should result in an increase in Brazil's ambition for tackling deforestation and could revoke Bolsonaro decrees and veto bills passed in Congress. Revoking current legislation would be slow and difficult but, under Lula, stopping deforestation by 2030 is entirely possible.

More importantly, a Lula administration would be able to apply the know-how of his previous administration to restore Brazil's reputation as an environmental leader in tackling climate change.

The October general election in Brazil represents a moment when the fate of the Amazon may be decided, and with it our ability to limit global warming to 1.5°C in a no overshoot scenario.

Acknowledgements: we would like to thank for their help, among others, Graham Stock of Bluebay Asset Management and Erik Peek of Sail Ventures.

Appendix – Policy Assessments

Land Regularization

Today Brazilian legislation allows individuals who have engaged in agricultural activities on public lands to be granted land titles even if the initial occupation of the land was illegal, as long as it was regularized before 2011.

The Land Regularization package was introduced with the stated aim of providing farmers that operate on public lands access to rural credit, government programmes and technological innovations that today can only be accessed with possession of a land title[50].

What it proposes (non-exhaustive):

- Extends the 2011 regularization deadline to 2017, allowing the formal ownership of more than 500.000 ha of invaded public land
- Increases the size of illegally occupied public lands that can be regularized without prior inspection from the competent authority
- Allows individuals who have already been granted land through the land regularization process to receive a new title to a new occupation

Implications

NGOs and civil society claim that the bill legalizes the land-grabbing economy, which already drives 40% of deforestation in Brazil. According to WWF Brazil, the changes proposed could generate deforestation of at least 16,000km^2 by 2027, resulting in the release of 1.43bn tons of CO_2eq over a decade.[51] However, proponents of the bill also claim that the lack of land regularization is one of the main drivers of deforestation, as issuing a land title to those who have previously deforested facilitates identification and punishment.

Timeline and process:

The package has been approved by the Chamber of Deputies and is being assessed by the Senate. It was sent by the president of the Senate for consideration solely by the Agriculture and Agrarian Reform Commission (CRA). After discussion in the CRA the bill would go through a final vote in plenary where it is uncertain if it would pass.

Environmental Licensing

One of the most impactful measures is PL 2159/2021, which proposes changes to the law governing environmental licensing. For the past 30 years the law has been the major tool used by regulators to set the environmental requirements that medium and large infrastructure projects need to abide by.

Advocates of the proposal say that it aims to reduce bureaucracy and simplify environmental licensing in order stimulate economic growth and investment.

[50] PL2633/2020 and PL 510/2021
[51] World Wildlife Fund (2021) Legislative Package that Threatens the Amazon on the Table of the Brazilian Senate for 2022. WWF. Available at: Link

What it proposes (non-exhaustive):

- Explicitly exempts 14 activities from impact assessment and licensing, some of which are deeply linked to deforestation in the Amazon. This includes certain agricultural activities if the property is registered in the Rural Environment Registry (CAR), or if it is in process of regularization and it has signed a commitment to restore illegally deforested areas
- Allows self-certification for licenses for several types of projects. Projects would only need to fill an online form committing to comply with environmental guidelines, with no field inspections by the environmental authority
- Implements automatic renewal of licenses if the renewal request is made 120 days prior to the end of the original license
- Weakens the role and authority of environmental agencies by passing on to states the authority of establishing their own procedures for specific environmental licensing processes
- Restricts, and in some cases eliminates, the participation of civil society in decision-making, and bars consultation with indigenous peoples and afro-descendant communities occupying non-titled lands[52]
- Ends the analysis and mitigation of indirect impacts of projects, weakening controls over deforestation induced by the expansion or improvement of roads and the installation of transmission lines. An instrument denominated License by Commitment, which does not require the development of an environmental impact assessment study, would be applicable to these projects

Implications:

By weakening enforcement and the power of environmental licensing, the bill would lead to the decriminalization and expansion of deforestation in Brazil, especially in the Amazon which is a big center of operations for the agriculture industry.

Timeline and process:

The proposal was discussed for 17 years in the Chamber of Deputies and was approved by the Chamber of Deputies on the 12th May 2021. However, the proposal has not advanced in the Senate. Even though the president of the Senate said that he would not rush the proposal and that he would seek strong consensus, on the 2nd June 2022 he signed an order to send the bill for discussion to the CRA, ignoring calls from the opposition for the bills to be discussed in other commissions such as the Environmental Commission, and the Human Rights (CDH) and Social Affairs Commission (CAS). In light of this situation, some reports suggests that members of the rural caucus are trying to prioritize a project with a similar text[53], which they think that could pass faster than 2159/2021.[54]

If the bill passes and is approved by the president in its current form, it is likely to be declared unconstitutional by the Supreme Court, according to recent judicial precedents[55]. In the session of the 28th April 2022 the Supreme Court ruled against a provision in Law 11.898/2017 that allowed licenses and permits in general to be issued automatically in certain circumstances. In short, the Supreme Court ruled that automatic issuance is

[52] Environmental Impact Assessment Review (2022) Viewpoint: The far-reaching dangers of rolling back environmental licensing and impact assessment legislation in Brazil. Available at: Link
[53] PL 168 of 2018
[54] Observatório do agronegocio no Brazil (2022) Ruralistas tentam manobra para aprovar fim do licenciamento ambiental. Available at: Link
[55] Mayer&Brown (2022) Climate Litigation and the Brazilian Supreme Court: A Follow-Up on the “Green Agenda” and the Trial Sessions That Took Place in April and May. Available at : Link

not applicable to environmental licenses and permits, as per Constitutional provisions that state environmental licensing is mandatory and cannot be waived.

Exclusion of Mato Grosso state from the Legal Amazon

Mato Grosso is the leader in production of soybean and corn among Brazilian states, in addition to hosting the largest herds of cattle in the country. The proposal is motivated by the desire to expand the agricultural potential of the state, which concentrates approximately 25% of the country's soybean production (Figure 7).

What it proposes:

- PL 337/2022 would remove the state of Mato Grosso from an area that Brazilian legislation recognizes as the Legal Amazon

Implications:

States that are part of the Legal Amazon are required to conserve 80% of their vegetation on land (if it is rainforest) and 35% if it is savanna (known as *cerrado*). If the bill is approved the percentage would be reduced to 20% for the *cerrado* ecosystem.

According to the Forest Code Observatory, a group of civil entities that monitor forest legislation, the measure could expand forest loss by at least 100,000km^2. This would be added to the already high levels of deforestation experienced by Mato Grosso, which is the Legal Amazon state with the second-largest accumulated deforestation (see Figure 8). In addition, the bill would exempt farmers from having to restore degraded areas on property equivalent to 3.3 Mha.[56]

Approval of the bill could have knock-on effects on other Amazon states which may be encouraged to promote similar bills, resulting in the reduced effectiveness of the Legal Amazon as an instrument of environmental conservation.[57] However, similar proposals have been presented in the past without success.

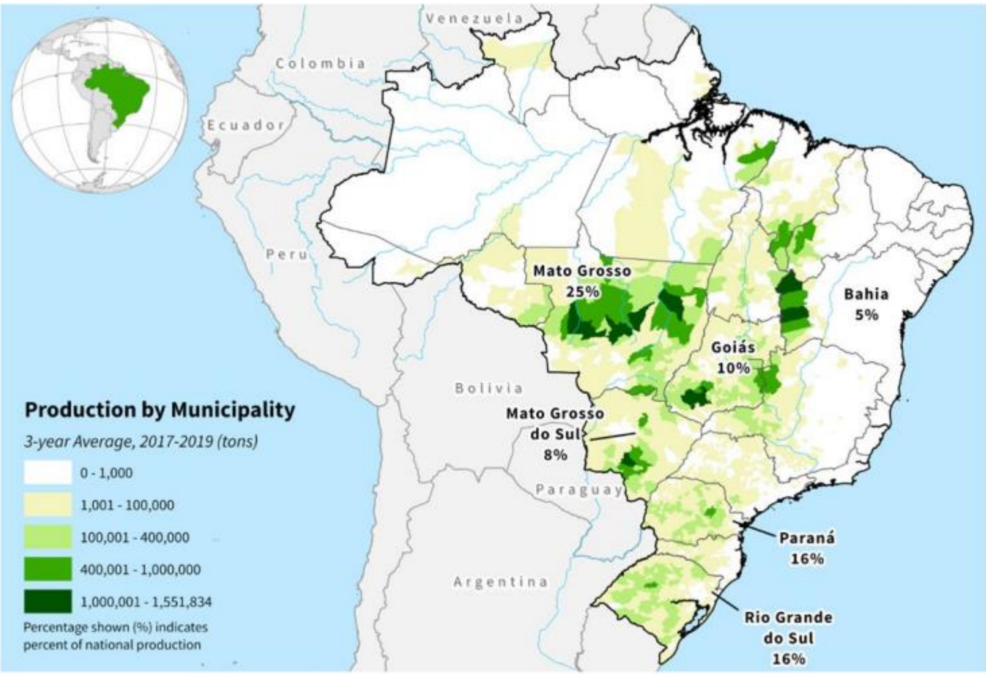
Timeline and process:

PL 337/2022 was filed in February 2022 by deputy Juarez Costa (MDC-MT) in the Chamber of Deputies. The president of the Chamber has sent the bill for analysis by the standing committees in ordinary proceedings.

The appointed rapporteur is Neri Geller, vice-president of the Parliamentary Agricultural Front, who has been previously associated with agricultural interests.

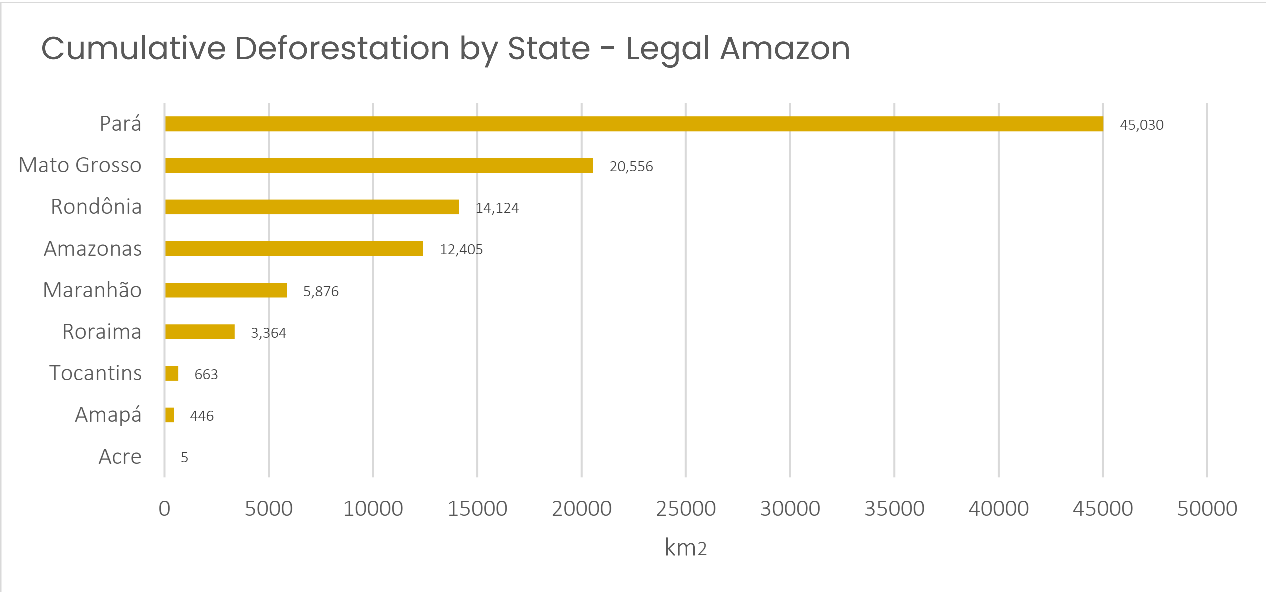
[56] Observatório do código florestal (2022) Análise do Projeto de Lei no 337/2022. Available at: [Link]
[57] Mongabay (2022) Brazil bill seeks to redraw Amazon borders in favor of agribusiness. Available at: [Link]

Figure 7 Brazil Soybean production by region



Source: *US Department of Agriculture, 2021*

Figure 8 Cumulative deforestation by state



Source: INPE, 2022

New National Greenhouse Gas Reduction system (SINARE)

On May 19th, Bolsonaro issued a decree establishing the National Greenhouse Gas Emissions Reduction System (Sinare), with the aim of regulating carbon emissions and credits in Brazil.

What it proposes:

- Introduction of sectoral plans to establish individual emissions targets for nine sectors, such as industry, transport, agriculture, health services, civil construction and mining.
- The targets of the sectoral plans must align with, and support the achievement of the Brazilian NDC. Sinare will be a centralized registry for emissions, removals, reductions and compensations of GHGs, as well as transactions, transfers and retirements of carbon credits.
- Sectoral targets can be met both through operational emissions reductions and carbon credits. Credits from the voluntary carbon market will be verified in a national verification scheme to be developed by the Ministry of Environment.
- The decree amends the definition of the 'methane credit' in the Biogas and Biomethane Strategy published in March 2022 leaving further details about market design, environmental integrity and additionality to be specified by the Minister of Environment at a later stage.
- Creates a new asset called Carbon Stock Units (CSU) linked to carbon stocks, such as forests.

Implications:

- The decree obliges sectoral organizations to draft reduction plans within 180 days of the decree's publication, with the possibility of a further 180 days' extension. Questions around the legal framework of the sectoral plans remain unanswered, as it is unclear whether the sectoral plans will be mandatory for companies, or how they are to contribute to Brazil's NDC.
- The decree does not specify the activities in each sector that would be covered by the system (for example, it does not specify whether the system would cover emissions from beef production). Nor does the decree define the mechanisms for the operation, price-setting, or the regulations of the functioning of the Sinare system. The Ministry of Environment will define the latter.
- The decree does not establish a carbon market; rather it provides a set of guidelines for developing instruments that would regulate it in future[58].
- The methane credit could be negative for Brazil's deforestation targets, as it may further encourage the proliferation of biofuels from sugar-energy residues. Sugarcane contributes to deforestation by driving competition for viable lands with other commodities, such as soy and beef
- The decree does not specify details about the fungibility of CSUs, which raises concerns about environmental integrity.

Timeline and process:

Despite the decree's lack of detail, a Brazilian ETS seems imminent. On the same day that the decree was published, deputy Carla Zambelli presented her final report on PL 528/2021, another ongoing effort in the legislative branch to set up Brazil's system of emissions trading.

[58] Política por Inteiro (2022) Carbon: a Decree by the Brazilian government is out, but not the market - Política por Inteiro. Available at: Link

Unlike the decree, the draft bill does not cover agriculture. It is likely that this bill could be approved, at least by the Chamber of Deputies, in the second half of 2022.

Mining in Indigenous Lands

On February 5th 2020, Bolsonaro signed PL 191/2020 with the purpose of exploiting undeveloped mineral deposits in Indigenous Lands. According to Brazil's regulations, Indigenous Lands (ILs) are territories inhabited and possessed exclusively by indigenous communities.

This right is enshrined in Article 231 of the Brazilian Federal Constitution of 1988. Under the current legislation, mining inside ILs requires congressional authorization, a characteristic that has avoided legal industrial mining from damaging these territories.

What it proposes

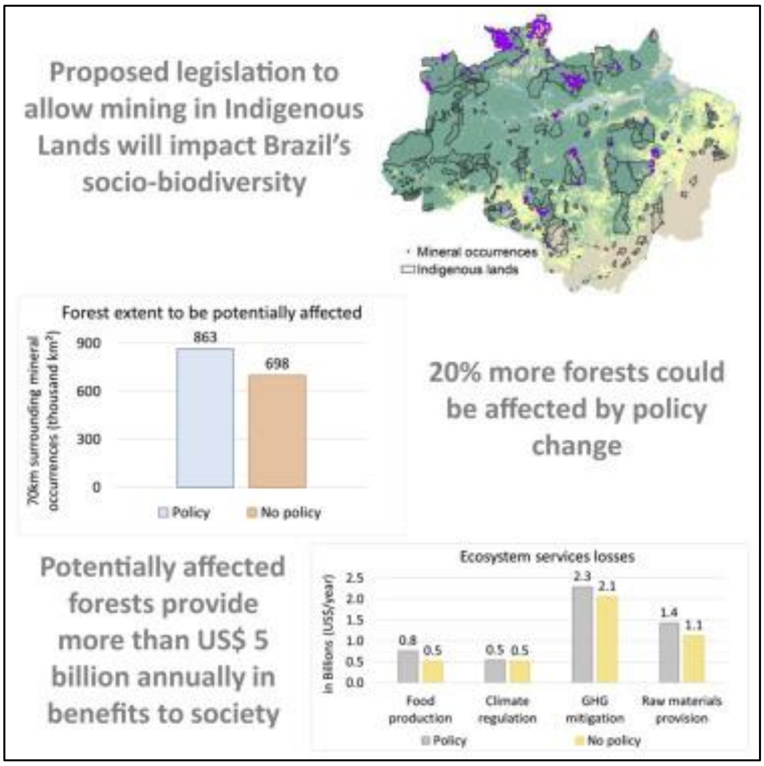
- Allows for the exploitation of mineral, fossil, water and organic resources in Indigenous Lands
- Sets conditions for mining in ILs and stipulates that indigenous communities should be compensated and consulted before the activities start, only if their ILs are recognized by the government

Implications

- Indigenous Lands cover approximately 1.2m km^2 (23%) of Brazil's Legal Amazon and have traditionally experienced lower levels of deforestation compared to non-indigenous territories. For example, one study showed that from 1985-2020, only 1.6% of deforestation in Brazil has occurred on Indigenous Lands, despite them covering around 13% of the national territory[59].
- According to a study the implementation of PL191/2020 would eventually affect 20% percent more land than under current policies, assuming all known mineral deposits are developed[60].
- According to the same study, the proposal would also affect forests that provide more than $5bn annually in ecosystem services.

[59] Mapbiomas.org (2022) Mapbiomas Brasil | Vegetação nativa perde espaço para a agropecuária nas últimas três décadas. Available at: Link
[60] Siqueira-Gay, J., Soares-Filho, B., Sanchez, L., Oviedo, A. and Sonter, L., (2022) Proposed Legislation to Mine Brazil's Indigenous Lands Will Threaten Amazon Forests and Their Valuable Ecosystem Services. Available at: link

Figure 9 Expected impact of the mining in indigenous lands bill



Source: Siqueira-Gay, J et.al 2020

Timeline and process

The Chamber of Deputies decided to fast-track the legislation by bypassing the committee debate. The bill was expected to be approved by April 2022 but the president of the Chamber has decided to delay the vote to the end of this year.[61]

The government used the war in Ukraine to justify bypassing the committee debate, claiming that passing it is important in the face of the current fertilizer crisis (44% of Brazil's potash import come from Russia and Belarus). However, some experts highlight that this argument is flawed, as only 11% of Brazil's potash reserves are in Indigenous Lands and the Amazon potash deposits are difficult to extract.[62,63]

It is extremely unlikely that the bill will pass in the Senate as it has sparked protests and a heated public debate about the government's repeated attacks on indigenous communities and the violation of their constitutional rights. The bill is also likely to be a violation of the UN Declaration on Rights of Indigenous Peoples, which Brazil has signed. As a result, if passed, we expect this bill to be overturned by the Supreme Court.

[61] Pajolla, M., (2022) Câmara sente repercussão negativa e desacelera PL que autoriza mineração em terras indígenas. Brasil de Fato. Available at: Link
[62] Della Coletta, R., (2022) Bolsonaro Uses Possible Russian Fertilizer Shortage to Defend Mining on Indigenous Lands. Folha de S.Paulo. Available at: Link
[63] McCoy, T. and Sá Pessoa, G., (2022) 'A good opportunity for us': Brazil's Bolsonaro uses Ukraine war to justify exploiting Indigenous land. The Washington Post. Available at: Link

Disclaimer