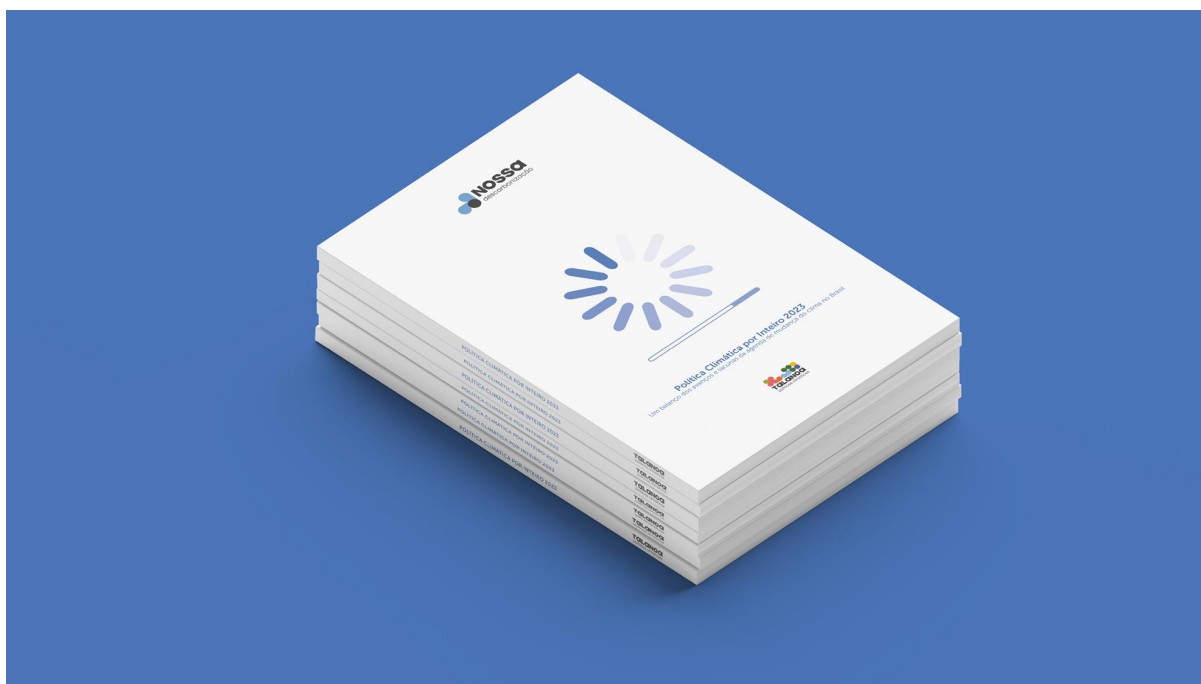


Some progress observed, but Brazil still to create a roadmap for decarbonization and addressing climate impacts

Report from the Talanoa Institute shows that the Brazilian government corrected the course of climate policy in 2023, but struggles in adaptation, energy transition, and agriculture.



November 22, 2023 - On the eve of the 28th United Nations conference on climate change, a new report reveals that Brazil is far from fulfilling its climate commitments under the Paris Agreement. This is the conclusion of experts from the Talanoa Institute, who conducted a comprehensive and thorough survey of all national and sectoral climate policies. The study identified 17 solid advances, eight initial advances, 15 areas without progress, and one area of regression in terms of public policies and climate change in Brazil in 2023. Controlling deforestation in the Amazon and creating a regulated carbon market are the most promising areas in terms of emission reduction. The study includes recommendations for Brazil to meet its commitments in the current critical decade for the climate and pave the way for net zero emissions by 2050, as committed to in the Climate Convention. The study was delivered to the Ministers of Finance and Environment and will also be shared with the Minister of Agriculture and members of the Chamber of Deputies and the Federal Senate.

“This year, the climate agenda has moved out of a niche within the government and spread to economic, financial, and tax policies. However, this progress is occurring without adequate governance means, that is, without coordination that favors effectiveness and balance between what we need to do to reduce greenhouse gas emissions and what we need to do to adapt to the already changed climate,” explains Natalie Unterstell, president of the Talanoa Institute. “In some sectors, like social housing, infrastructure, and health, we are still at square one, with no adaptation of public policy, despite the impacts we are already seeing,” she warns.



The report "Climate Policy in Full" shows that although Brazil arrives at COP 28 buoyed by the good news of a 22% decrease in Amazon deforestation, the country will also be under scrutiny for cutting 480 million tons of CO₂e in three years to reach its 2025 target. In other words, the emission levels of an entire South Africa in a short period. By the year of the COP in Belém, we should be emitting 250 million tons of CO₂e above the target, even in the considered desirable scenario, according to the government's own data, in projections used in the Multi-Year Investment Plan (PPA) for the period 2024 to 2027. The good news in the report is that the subsequent target for 2030 can be achieved according to the official projection, even representing a net emissions limit 33% lower than the data from the last available year in official estimates (2020).

"There is still great uncertainty about the results of climate policies, as they are still being built. Both national strategies and sectoral plans for mitigating greenhouse gases and adapting to climate change are yet to be defined," evaluates Marta Salomon, senior expert at the Talanoa Institute.

Another conclusion of the report is that the trend of a significant decrease in Amazon deforestation will make the agriculture and energy sectors the next big focus of decarbonization, as well as requiring a more demanding view on the protection of the Cerrado, calling for greater efforts in the coming years. One of the report's findings is that achieving the 2030 target is still possible, provided there is a radical reduction in deforestation, forest restoration, and carbon pricing through a regulated market. Only the latter could price 16% of Brazilian emissions if the proposed law is approved as it passed through the Senate. The Talanoa Institute is working with a scenario of more ambitious emission cuts, which would be possible through a radical reduction in deforestation, forest restoration, and carbon pricing. In terms of the already changed climate, the report presents a concerning panorama: few Brazilian municipalities and economic sectors are prepared to face the impacts of climate change, and a national strategy and sectoral adaptation plans should only take shape over 2024 and 2025.

The Talanoa Institute's report is particularly important not only because the climate is showing all Brazilians why we urgently need to reduce the emissions that are altering it. This year, negotiators who will meet at the Dubai conference will have the responsibility to focus on the implementation of the targets presented by the signatory countries of the Paris Agreement, assess the distance from the chances of balancing global warming at 1.5°C, and start plotting correction routes. In this context, the Talanoa report fills a gap, as Brazil does not yet have an official assessment of its climate policies and the extent of its commitments, even though it is at a moment of rebuilding the agenda after setbacks recorded in the previous four years of government. Moreover, the country should occupy a key position in the negotiations, as it is the fourth-largest emitter and will preside over COP 30, when new climate targets must be presented by all countries.

Land use

In numbers, aligning with the mitigation targets of Brazil's revised NDC in 2023 means:

- Reducing emissions by approximately 480 million tons of CO₂e by 2025, which is nearly equivalent to the emissions of South Africa;
- Cutting the current deforestation rate in the Amazon by 33.3% by 2025;



- Reducing the current rate by 25% per year over the next five years to achieve zero deforestation in the Amazon by 2030;
- Reducing emissions by approximately 600 million tons of CO₂e by 2030, which is equivalent to the emissions of Australia.

A part of Brazil's decarbonization trajectory is already underway: Brazilian government documents indicate a desire to reduce deforestation in the Legal Amazon to almost a quarter by 2027. However, if the zero deforestation goal is achieved in both the Amazon and the Atlantic Forest by 2030, combined with a 17% reduction in deforestation in other biomes, this would allow the land use sector to reach net negative emissions as early as the beginning of the next decade (-123 MtCO₂e to -580 MtCO₂e in 2030). If, in addition, Brazil promotes the restoration of 4.8 million hectares of native forests by 2030 and expands the area of homogeneous planted forests by 4.4 million hectares, it could reduce its greenhouse gas emissions by 63% to 80%.

According to the report, actions such as the restoration of native forests and the expansion of protected areas could lead to the removal of 747 MtCO₂e from the atmosphere by 2030. “This requires the creation of a productive chain that includes everything from seeds and seedlings to logistics and labor – and this is the other good news: we are talking about creating jobs and income-generating opportunities, mainly in the countryside,” highlights Natalie.

Agriculture

In agriculture, the report found some progress, though emissions in this sector are increasing. Reducing interest rates on operating loans for rural property owners without environmental liabilities, in the process of environmental regularization, or adopting sustainable agricultural practices is a way to reward producers who are doing their part. Another front promises to prevent the emission of one billion tons of carbon between 2021 and 2030, through the recovery of 30 million hectares of degraded pastures and planting 4 million hectares of forests, as well as adopting techniques like no-till farming and the integration of crop-livestock-forestry over more than 22 million hectares and animal waste management. If achieved, in ten years, Brazil will avoid emitting the equivalent of what the agricultural sector currently emits in 20 months. Overall, however, there was no significant policy shift for the sector in 2023, and clear measures are lacking to cut 30% of methane emissions, led by cattle digestion, a commitment already made by Brazil.

Energy

Despite a relatively clean energy matrix compared to other countries, the burning of fossil fuels – mainly in freight and passenger transport and industry - is the third source of Brazilian greenhouse gas emissions. In the last decade, the country recorded emissions above 400 million tons of CO₂e per year in the sector, except in 2020, the first year of the Covid-19 pandemic. Currently, Brazil has more than half (50.8%) of its matrix in fossil sources: oil and its derivatives occupy 35.7% of the energy matrix, natural gas 10.5%, and coal another 4.6%.



Future prospects are not encouraging: the National Energy Plan 2050, a long-term planning instrument, projects an increase in demand and also oil production, with Brazil remaining a major producer of hydrocarbons and natural gas until mid-century. This scenario contrasts with that outlined by the International Energy Agency (IEA), which projects a peak in global demand for oil, natural gas, and coal before 2030. To prevent global warming from exceeding 1.5°C, it would be necessary not to increase fossil energy production after the middle of this decade.

This contradiction of maintaining oil production for a longer time in a scenario of energy transition is at the center of public policy for the sector, still in the structuring phase. While clarity is lacking on structural decarbonization actions of the energy sector, the government has launched specific initiatives that favor sector emission reduction, such as the national sustainable aviation fuel program, the Future Fuels Program (decarbonization in the transportation area), and the Amazon Energies Program. Since May, a bill that includes green hydrogen (H2V) in the National Energy Policy has been under discussion in the Chamber of Deputies. On another front, the government plans investments of R\$ 307 million (R\$ 281 million until 2026) to carry out geological surveys on so-called critical or strategic minerals for the energy transition. However, there is a lack of a clear policy for sustainable exploitation of strategic minerals, as well as a definition of whether the country will only be an exporter of these resources in the form of commodities.

The report recommends adapting the national interconnected system so that "maladaptation" measures do not harm the decarbonization of the electric sector. It also suggests establishing an energy transition schedule aligned with the climate neutrality goal, focusing on fossil fuels.

Industry

The Brazilian industry is the fourth-largest contributor to Brazilian greenhouse gas emissions, accounting for 11% of the total. Its decarbonization by the net-zero goal in 2050 is complex, as it involves a series of factors, such as financing, technology, infrastructure, staff qualification, regulation, etc. Joint government-industry efforts are necessary, therefore, and alignment between decarbonization and neo-industrialization can be given in the next steps of the Ecological Transformation Plan. This goal could also be partially achieved with the implementation of the Brazilian Emissions Trading System – the regulated carbon market. According to analyses by the Talanoia Institute, if the bill currently under discussion in the National Congress is approved as it passed the Senate, the regulated market could price 16% of Brazilian emissions.

In a recent analysis by the Talanoia Institute's experts, Bill 412/2022, which is under discussion in Congress, is the best proposal from the recent batch of bills aiming to establish a regulated carbon market in Brazil. The bill establishes essential elements, such as emission limits and criteria for allocating emission rights and governance, ensuring system integrity and effectiveness. It also imposes robust penalties, designed to ensure that it will always be more advantageous to comply with the law than to violate it.

"Countries like China, Australia, the USA, Canada, South Korea, and Japan are already taking significant steps in promoting green industrial policies. Brazil needs to take advantage of its natural benefits and take deliberate measures to overcome education and workforce qualification challenges. By adopting a green industrial policy, Brazil can boost innovation, create jobs, and promote sustainable economic growth," the report highlights.

Points of Concern

- The validation of the rural environmental registry (CAR) increased from 0.40% in 2020 to 1.34% in 2023, revealing a marginal improvement and a concerning situation, given that this instrument has been implemented since 2012;
- The age of cattle slaughter still remains between 37 to 42 months, while the goal is to reach 34 months by 2030.
- Emissions from electric power generation grew 46% between 2020 and 2022 and are today 442% higher than conservatively aimed for 2030;
- The growth in oil barrel production is on track to reach 76.6% in 2030, when the country aims to reach 5.3 Mbarril/day compared to the current 3 Mbarril/day; this goal guiding the energy policy contrasts with the lack of progress in formulating an energy transition policy aligned with climate neutrality in 2050; even though most of it is directed towards export, it will produce a significant impact in terms of global greenhouse gas emissions;
- There was a 26% increase in domestic gas consumption between 2020 and 2022, with a rising trend; Total energy supply emissions (excluding transport) have remained stable since 2020, about 204% away from the target projected for 2030.

Observed progress:

- Environmental enforcement actions grew 86%, from 3,261 fines against flora by environmental agencies in 2020 to 6,077 in 2023;
- The authorized budget for environmental enforcement grew 49.5%, from R\$ 78.1 million in 2020 to R\$ 116.8 million in 2023, although it suffered a 16% drop (R\$ 19.5 million) between 2022 and 2023;
- Agricultural productivity grew 9%, from 3.64 t/ha in 2020 to 3.97 in 2023, with a slight drop of 2.5% between 2022 and 2023;
- The percentage of biodiesel addition in diesel rose to 12% in 2023, having been 10% in the last year and 11% in 2020;
- Subsidies for contracting coal-fired power plants fell 20.5%, from R\$ 928 million in 2022 to R\$ 738 million in 2023, even though they were lower in 2020;
- CBIO targets increased by 157% between 2020 and 2023, and now represent almost 40% of the objective for 2030; and
- The participation of renewable energies in the Internal Energy Supply (OIE) grew 6% between 2022 and 2023, and is close to the target of 55% for 2030.

Points where further progress is needed:

- Inclusive and participatory governance, of a national rather than just federal nature, such as the creation of the National Climate Emergency Council.
- Adapting public health policy to climate impacts.
- Considering climate risks in PAC investments, both to avoid non-resilient technologies and vulnerable locations, and to prioritize adaptation works;
- Inserting adaptation into social housing policy and other social policies, such as peripheries and slums, urbanization, among others.



- Structuring direct incentive instruments for low-carbon transition of families, including consumption (such as replacing household appliances, vehicles, and others).
- Designing a climate financing strategy, including public and private, national and international mechanisms.
- Discussing steps to insert relevant content on climate change into the education policy.
- Ensuring budgetary resources for critical actions, such as adaptation and deforestation control.
- Approval of Bill 412/2022, as it stands, for the creation of a regulated carbon market in Brazil.
- Completion of the National Bioeconomy Plan.
- Regulation of the National Policy for Payment for Environmental Services (PSA).
- Completion of the revision of the National Plan for the Recovery of Native Vegetation (Planaveg).
- Linking social business, entrepreneurship, and innovation policies with the reforestation and restoration chain.
- Launching a concession program for the reforestation of degraded federal areas in the Amazon.
- Launching the Action Plan for the Prevention and Control of Deforestation in the Cerrado (PP-Cerrado) and its effective implementation.
- Setting targets for forest protection and restoration for all biomes
- Creating a panel for monitoring and management reports of sectoral plans for mitigation and adaptation of the agricultural sector.
- Formulating a public policy for methane reduction that allows Brazil to achieve the 30% reduction in this decade proposed in the global agreement signed by the country in 2021 (Global Methane Pledge)
- Reviewing the National Fertilizers Plan
- Reviewing the policy for sustainable exploitation of strategic minerals
- Building a new, more ambitious NDC with greater societal participation by 2025.

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