



Brazil's Climate Policy in Full 2024



A Comprehensive Overview of Climate Policies in Brazil

REPORT

AN OVERVIEW OF CLIMATE POLICIES IN BRAZIL

EXECUTIVE SUMMARY

ECOSYSTEM OF CLIMATE POLICIES

THE STATE OF CLIMATE POLICY IN BRAZIL

TALANOA

CONSIDERATIONS

ACRONYMS

CREDITS

APPENDICES

INDEX

ABOUT

CONTACT

ACKNOWLEDGEMENTS

FOREWORD

PREFACE

INTRODUCTION

TABLE OF CONTENTS

THE STATE OF CLIMATE POLICY IN BRAZIL	6
ECOSYSTEM OF CLIMATE POLICIES	8
EXECUTIVE SUMMARY	10
AN OVERVIEW OF CLIMATE POLICIES IN BRAZIL.....	15
1. Main Highlight to Celebrate	16
2. Additional measures for deforestation control are anticipated.....	18
3. Forest restoration maintains the goal set in 2016	19
4. Misaligned Agriculture.....	21
5. Renewable Energy on the Rise, but New Barriers for Consumers.....	24
6. Is There an Energy Transition?	26
7. Artificial Intelligence (AI) Closer to Climate Policy	29
8. Fiscal Policy Under Pressure from Climate Extremes.....	30
9. Planning Brazil for 2050: A Country Impacted by Climate Change.....	31
10. Adaptation: A Term for the Future, Yet Closer Than Ever	32
11. Climate Financing Expands but Still Needs Greater Impact	34
12. Brazil Finally Establishes a Carbon Pricing System	35
13. Governance of Climate Policy.....	39
FINAL CONSIDERATIONS.....	40
TALANOA INDICATORS	42
LIST OF ACRONYMS	44
CREDITS	45

THE STATE OF CLIMATE POLICY IN BRAZIL (2024)

20 solid advancements, 1 progress despite the risks, 14 partial advancements, 4 areas with no progress, and 1 area with regression in terms of public policies and climate change

In 2024, we monitored 40 public policy areas related to climate change in Brazil. Among these, we observed: 20 solid advancements, 1 progress despite the risks, 14 partial advancements, 4 areas with no progress, and 1 area with regression. Compared to 2023, when we recorded: 17 solid advancements, 8 initial progresses, 15 areas with no progress, and 1 regression, the 2024 data indicate qualitative improvements in critical sectors. The most significant regression occurred in fiscal policy, with increased taxation on solar panels and risks for bioeconomy products. Conversely, three structural fronts stood out: deforestation control, emission pricing, and forest restoration planning. If rigorously implemented, these measures have the potential to reduce emissions by up to 80% compared to 2005 levels. However, challenges persist, particularly in energy transition and combating wildfires, both of which require urgent action. Climate adaptation has advanced with the publication of a national strategy, but its effectiveness depends on integration with the Climate Plan and fiscal policies dominating the 2024 discussions.

PUBLIC POLICY	RESPONSIBLE AGENCIES AND MINISTRIES	OUR ASSESSMENT		STAGE IN PUBLIC POLICY CYCLE
		IN 2023	IN 2024	
Climate adaptation	MMA, MCTI, MME	NO PROGRESS	SOME PROGRESS	○ Formulation
Family farming	MDA, MDS, MMA, Consea	SOME PROGRESS	PROGRESS	○ Formulation
Agriculture, livestock and supply	MAPA, BCB, EMBRAPA	SOME PROGRESS	SOME PROGRESS	● Implementation
Water and sanitation	ANA, MCID, MMA, MDS	SOME PROGRESS	SOME PROGRESS	● Implementation
Automotive	MDIC, BNDES	RETROGRESSED	PROGRESS	● Implementation
Aviation	ANAC, MME	PROGRESS	PROGRESS	○ Formulation
Fuel	MME, ANP, MDIC, MMA	PROGRESS	PROGRESS	○ Formulation
Foreign trade	MDIC, APEX	PROGRESS	SOME PROGRESS	● Implementation
Deforestation control	MMAMC	PROGRESS	PROGRESS	● Implementation
Legal defense	AGU	PROGRESS	PROGRESS	● Implementation
Indigenous rights	MPI, FUNAI, MJ	PROGRESS	PROGRESS	● Implementation
Circular economy	IBAMA, MMA, MCID	PROGRESS	PROGRESS	○ Formulation
Education	MEC, CEMADEN, MMA	SOME PROGRESS	SOME PROGRESS	○ Formulation
Employment and work	MTE	NO PROGRESS	NO PROGRESS	○ Formulation
Renewable energy	MME, MAPA, MDIC	PROGRESS	PROGRESS	● Implementation
Long-term strategy for climate neutrality (net zero)	Casa Civil, MRE, MMA, MCTI, MME	NO PROGRESS	NO PROGRESS	○ Formulation
Climate finance	BCB, BNDES, MMA, MF, CMN, CFSS, BNDES, MPO	SOME PROGRESS	PROGRESS	● Implementation
Gender	MMUL	NO PROGRESS	NO PROGRESS	○ Formulation
Climate governance	CIM	SOME PROGRESS	SOME PROGRESS	● Implementation
Social housing	MCID	PROGRESS	SOME PROGRESS	● Implementation
Racial equality	MIR, MMA	SOME PROGRESS	SOME PROGRESS	○ Formulation
Industry	MDIC, MF	PROGRESS	PROGRESS	○ Formulation
Artificial intelligence (new)	MCTI, MDIC	NO PROGRESS	PROGRESS	○ Formulation
Mining	MME	NO PROGRESS	SOME PROGRESS	● Implementation
Urban mobility	MCID	SOME PROGRESS	SOME PROGRESS	○ Formulation
Risk and disaster monitoring and management	MIDR, MCTI, INMET, INPE, CENAD, ANA, CEMADEN	NÃO AVANÇOU	PROGRESS	○ Formulation
NDC	Casa Civil, MRE, MMA, MCTI, MME	PROGRESS	PROGRESS	○ Formulation
Business and entrepreneurship	ME	NO PROGRESS	NO PROGRESS	○ Formulation
Ocean and coastal zones	MPA, MMA, MD, Marinha	PROGRESS	SOME PROGRESS	○ Formulation
Peripheries and slums	MCID, MIR	PROGRESS	PROGRESS	○ Formulation
Defense policy and national security	GSI, MD, Forças armadas, ABIN	NO PROGRESS	NO PROGRESS	○ Formulation
Foreign policy	MRE	PROGRESS	PROGRESS	● Implementation
Fiscal and budgetary policy	MPO, MGI e pastas setoriais	SOME PROGRESS	SOME PROGRESS	○ Formulation
Monetary and financial policy	BCB, STN, MF, CMN	PROGRESS	PROGRESS	● Implementation
Tax policy	MF, Congresso	PROGRESS	RETROGRESSED	○ Formulation
Institutional relations	SRI, SG	PROGRESS	PROGRESS	● Implementation
Health		PROGRESS	SOME PROGRESS	○ Formulation
Transition from fossil fuels	MME, MAPA, MDIC	NO PROGRESS	SOME PROGRESS	○ Formulation
Transport	MT	NO PROGRESS	PROGRESS	○ Formulation
Tourism	MTUR	PROGRESS	PROGRESS	○ Formulation
Urbanization	MCID	SOME PROGRESS	SOME PROGRESS	● Implementation
Protected areas	MMA, MDA	PROGRESS	PROGRESS	● Implementation
Traditional territories and communities	MJSP, MDA	PROGRESS	PROGRESS	● Implementation

ECOSYSTEM OF CLIMATE POLICIES

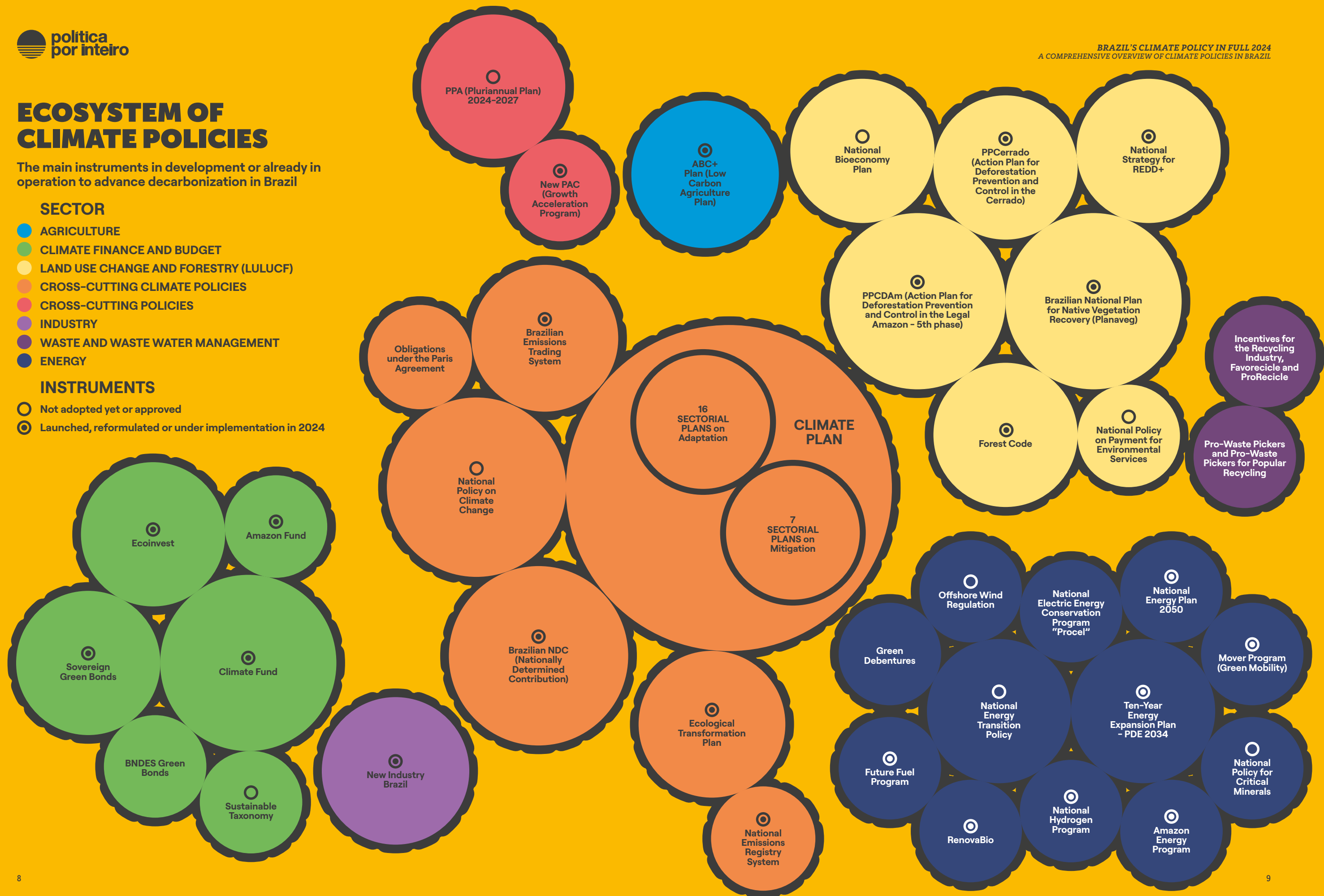
The main instruments in development or already in operation to advance decarbonization in Brazil

SECTOR

- AGRICULTURE
- CLIMATE FINANCE AND BUDGET
- LAND USE CHANGE AND FORESTRY (LULUCF)
- CROSS-CUTTING CLIMATE POLICIES
- CROSS-CUTTING POLICIES
- INDUSTRY
- WASTE AND WASTE WATER MANAGEMENT
- ENERGY

INSTRUMENTS

- Not adopted yet or approved
- Launched, reformulated or under implementation in 2024



EXECUTIVE SUMMARY

AMID UNPRECEDENTEDLY INTENSE CLIMATE EVENTS, THE YEAR 2024 IN BRAZIL'S CLIMATE AGENDA IS MARKED BY THE SUBMISSION OF A NEW BRAZILIAN CONTRIBUTION TO THE PARIS AGREEMENT, WITH COMMITMENTS FOR 2035⁽¹⁾, AND BY THE INITIATION OF THE STILL-INCOMPLETE CONSTRUCTION OF THE CLIMATE PLAN, WHICH WILL OUTLINE THE PATHWAY BOTH FOR REDUCING GREENHOUSE GAS (GHG) EMISSIONS AND FOR ADAPTING THE COUNTRY, WHICH IS HIGHLY VULNERABLE TO CLIMATE CHANGE.

A new and remarkable reduction in deforestation has been the main outcome achieved so far by ongoing climate policies. This serves as a clear indicator of success in tackling the country's current primary source of greenhouse gas emissions that drive global warming. However, continuous efforts are still needed to eliminate the loss of native vegetation across all biomes.

On the other hand, there have been no signs of transition in the agriculture, energy, and waste sectors, where emissions continue to rise⁽²⁾. Since the carbon market instrument will not address the root causes of emissions in these sectors, other tools will be required.

Brazil's new target for 2035, presented as a range between 1.05 gigatons and 850 million tons of carbon dioxide equivalent (CO₂e), accommodated divergent positions within the government and created opportunities for Brazil to trade mitigation outcomes (Internationally Transferred Mitigation Outcomes,

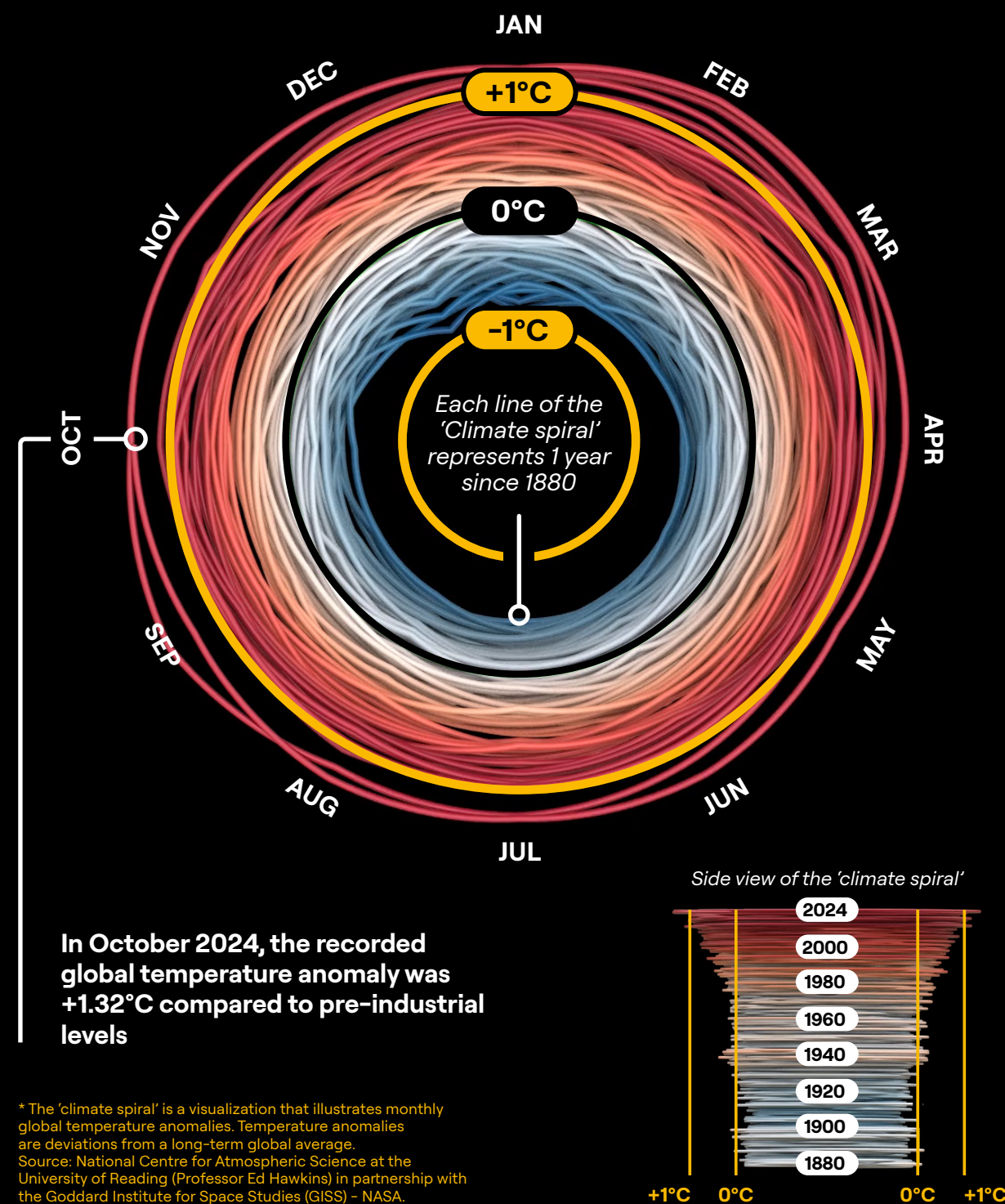
ITMOs) with other countries in an internationally regulated carbon market established during COP-29 in Baku.

Coincidentally, at the same time, the National Congress approved a bill to create a local carbon market, although its regulation will require an extended period.

The target established in the new *Nationally Determined Contribution (NDC)* also highlighted the government's challenges in committing to a more substantial reduction in emissions. The commitment represents a reduction of between 39% and 50% of emissions recorded in 2019, whereas the latest Global Stocktake (GST) recommended a global 60% reduction in GHG emissions relative to 2019 levels.

Nevertheless, Brazil has declared its ambition to align with the mission of limiting global warming to 1.5°C, based on the technical modeling underlying the Climate Plan, which is yet to be released.

Encouraging the reduction of greenhouse gas (GHG) emissions to limit global warming to 1.5°C* above pre-industrial levels is one of the goals of the Paris Agreement. Among its innovations, Article 6 stands out, as it regulates and promotes the carbon market. It fosters collaboration between countries and the private sector, providing mechanisms to mitigate emissions and achieve global targets



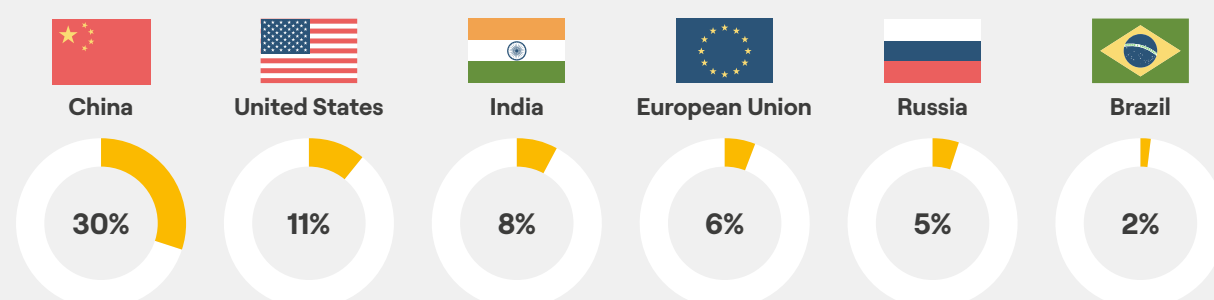
(1) https://unfccc.int/sites/default/files/2024-11/Brazil_Second%20Nationally%20Determined%20Contribution%20%28NDC%29_November2024.pdf

(2) SEEG. Analysis of greenhouse gas emissions and their implications for climate goals in Brazil: 1970-2023, 2024.

Available at: <https://seeg.eco.br/wp-content/uploads/2024/11/SEEG-RELATORIO-ANALITICO-12.pdf>, accessed on December 9, 2024.

THE BIGGEST GLOBAL EMITTERS IN 2023

A country's total greenhouse gas (GHG) emissions include both emissions from burning fossil fuels and those resulting from changes in land use, such as deforestation (global emissions in %)



Brazil's NDC did not go through a broad and inclusive process of consultation with society on its content. In order to ensure support for the implementation of the NDC and encourage sub-national and corporate targets aligned with short and long-term objectives, it is necessary for the NDC to gain legitimacy.

Different participatory processes, including technical workshops, public consultations and plenary sessions, were carried out with a focus on the Climate Plan. There has been more transparency in the adaptation agenda and little openness in the sectoral debates related to mitigation targets and actions.

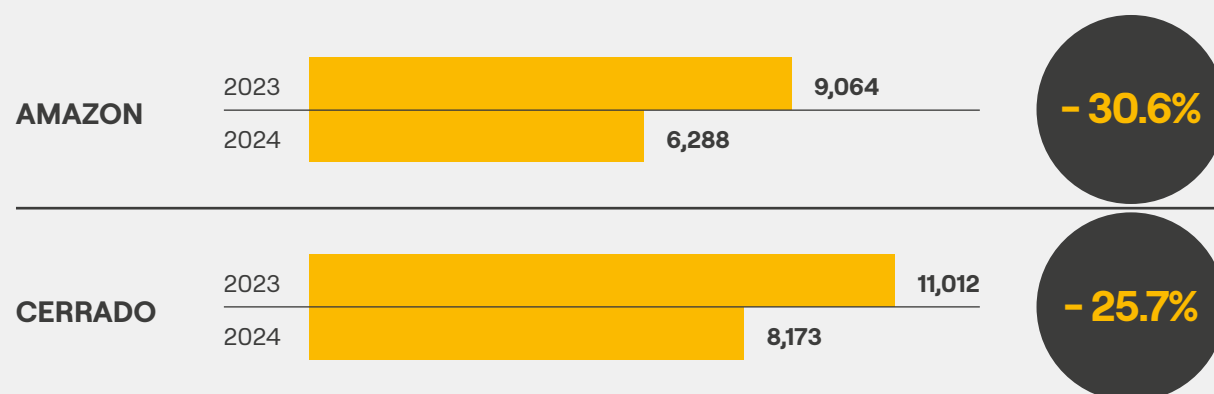
In the most recent rankings, Brazil appears

as the sixth largest historical emitter of GHG⁽³⁾, in a scenario of growing global emissions and high chances of the planet exceeding two degrees of temperature increase⁽⁴⁾ in relation to the pre-industrial period.

Among the sectors that emit the most greenhouse gases in the country, significant results in 2024 will depend exclusively on combating deforestation. The annual rate, measured between August 2023 and July 2024 (known as the "Prodes year"), shows a drop of 30.6% (to 6,288 km²) in the Amazon and 25.7% in the Cerrado (to 8,174 km²), after five years of increase in Brazil's second largest biome.

REDUCTION IN DEFORESTATION IN THE AMAZON AND CERRADO

Between 2023-2024, the Amazon and Cerrado recorded a significant reduction in deforestation, a significant step forward for Brazil's environmental agenda (in km²)



(3) https://edgar.jrc.ec.europa.eu/report_2024

(4) <https://www.unep.org/resources/emissions-gap-report-2024>

In agriculture and energy, sectors responsible for large shares of emissions, progress has been modest, as will be detailed in this overview.

In December, while presenting the first Biennial Transparency Report (BTR), Brazil reported a 10.5% increase in emissions in 2022 compared to 2020. This increase occurred across all sectors. The report omitted projections for 2025 due to the risk of failing to reduce emissions by 35% within three years and achieving the target of 1.32 GtCO₂e.

The revision of the National Climate Change Policy (PNMC), another initiative underway throughout the year under the Interministerial Committee on Climate Change (CIM), has no timeline for submission to Congress.

In 2024, public investments to finance decarbonization increased, bolstered by the issuance of green bonds abroad. At the same time, spending to address damages caused by climate disasters also grew. Nearly R\$ 54 billion from the federal budget was allocated to Rio Grande do Sul to mitigate the devastation, provided as extraordinary credits. This amount is five times the total funding authorized for decarbonization through the Climate Fund during the year and was financed by increasing public debt. However, it only represents one dimension of the destruction, which affected 96% of the state's municipalities and caused at least 182 deaths.

Faced with the urgent challenges of adaptation, a plan to address the climate emergency was announced in June by Marina Silva, the Minister of Environment and Climate Change, but it had not been made public as of early December. The plan was mentioned in September by President Luiz Inácio Lula da Silva, along with the announcement of a climate authority, which also has yet to materialize.

Progress has been made in constructing the Climate Plan, the central pillar of Brazil's climate policy. The National Adaptation Strategy (ENA)⁽⁵⁾ was submitted for public

consultation in November. The text highlights the country's significant vulnerability to extreme events such as heat waves, droughts, floods, and landslides, and proposes guidelines to ensure food production and energy supply, which are largely dependent on rainfall patterns. The ENA emphasizes climate justice, noting that climate events could push an additional 3 million Brazilians into extreme poverty by 2030, with the cost of inaction estimated at R\$ 1.8 trillion in GDP losses by 2050.

The National Adaptation Strategy is the first component of the Climate Plan to be made public, preceding the announcement of targets and implementation measures for sectoral adaptation plans. The most challenging part of drafting the Climate Plan is set to be revealed in 2025, including strategies and sectoral mitigation plans. These actions will need to define trajectories for sectors to achieve net-zero emissions, a goal Brazil has committed to reaching by 2050.

Throughout the year, the government rejected the possibility of advancing the net-zero emissions target from 2050, as advocated by the **Talanoa Institute**⁽⁶⁾. However, the NDC text recommends that developed countries take such action, following the principle of "common but differentiated responsibilities" of the Climate Convention.

A snapshot of Brazil's greenhouse gas emissions trajectory shows a gradual decline over the next two and a half decades. As will be discussed further, achieving net-zero emissions by 2050 will involve a considerable volume of residual emissions and proportional capture through forest restoration and biofuel production with carbon capture.

The expectation is that Brazil's climate policy will complete its construction phase in preparation for COP-30 in Belém. The tenth anniversary of the Paris Agreement will be a decisive moment for both the country and the planet, potentially representing the last chance to limit global warming to a safe threshold of 1.5°C, a milestone that is on the verge of being surpassed.

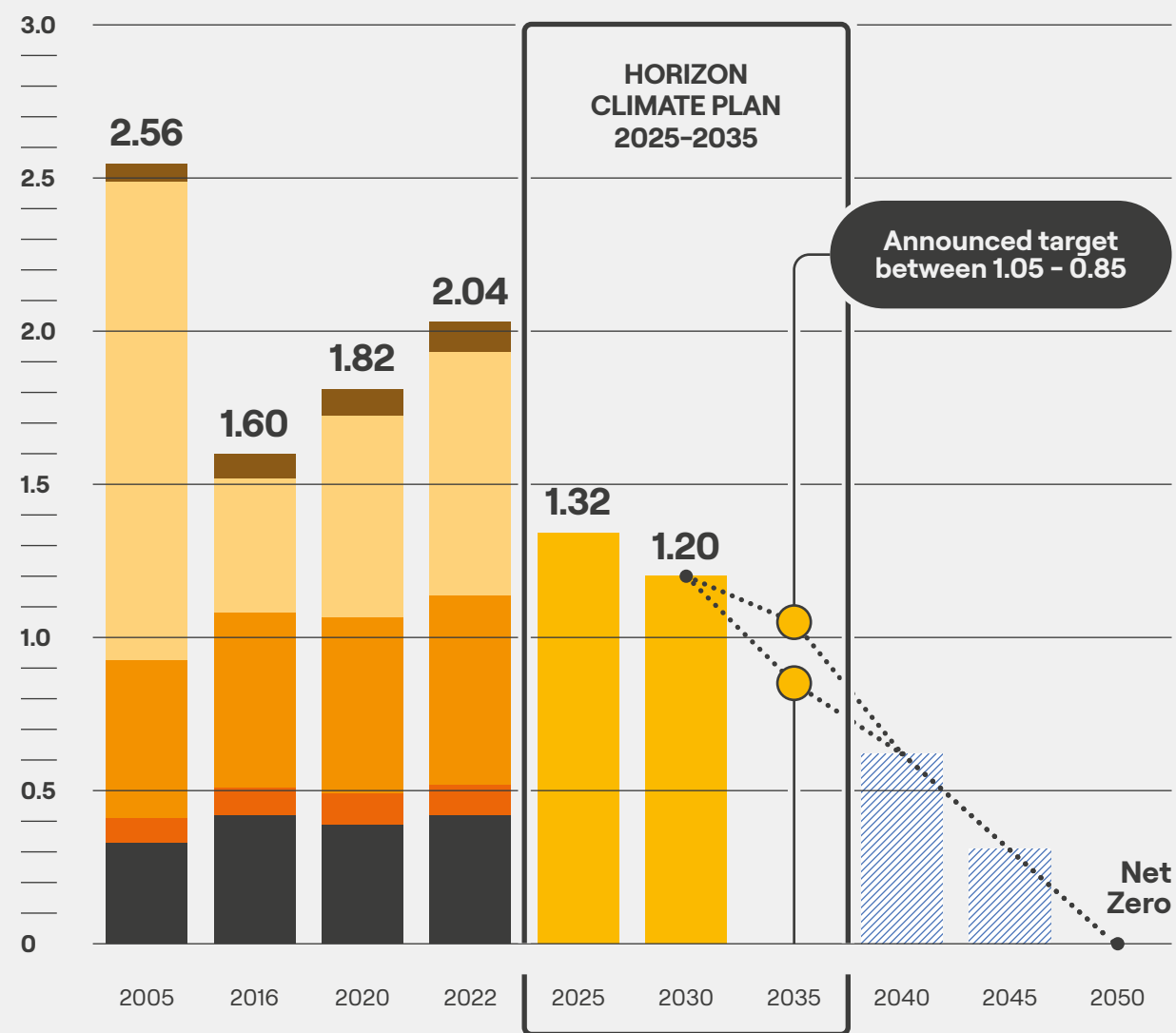
(5) <https://brasilparticipativo.presidencia.gov.br/processes/planoclima/f/315/>

(6) https://politicaporinteiro.org/wp-content/uploads/2024/10/00_Policy-Talanoa-NDC-Final-20241021.pdf

ON THE PATH TO CLIMATE NEUTRALITY

Trajectory of Brazilian emissions in GtCO₂e based on Brazil's new NDC

■ Energy ■ IPPU* ■ Agriculture ■ LULUCF** ■ Waste ■ Current budget
 ● 2035 Target ■ Budget under definition Trajectory under definition



- Indicative target for 2030 and 2035
- Sectoral allocation for the 2025-2035 horizon
- Actions for the 2025-2035 horizon by sector
- Design of a viable trajectory to achieve the “end point” of net-zero emissions by 2050

* IPPU: Industrial Processes and Product Use
 ** LULUCF: Land Use, Land-Use Change, and Forestry
 Source: Brazil. 2024 National Inventory Report (NIR)

AN OVERVIEW OF CLIMATE POLICIES IN BRAZIL

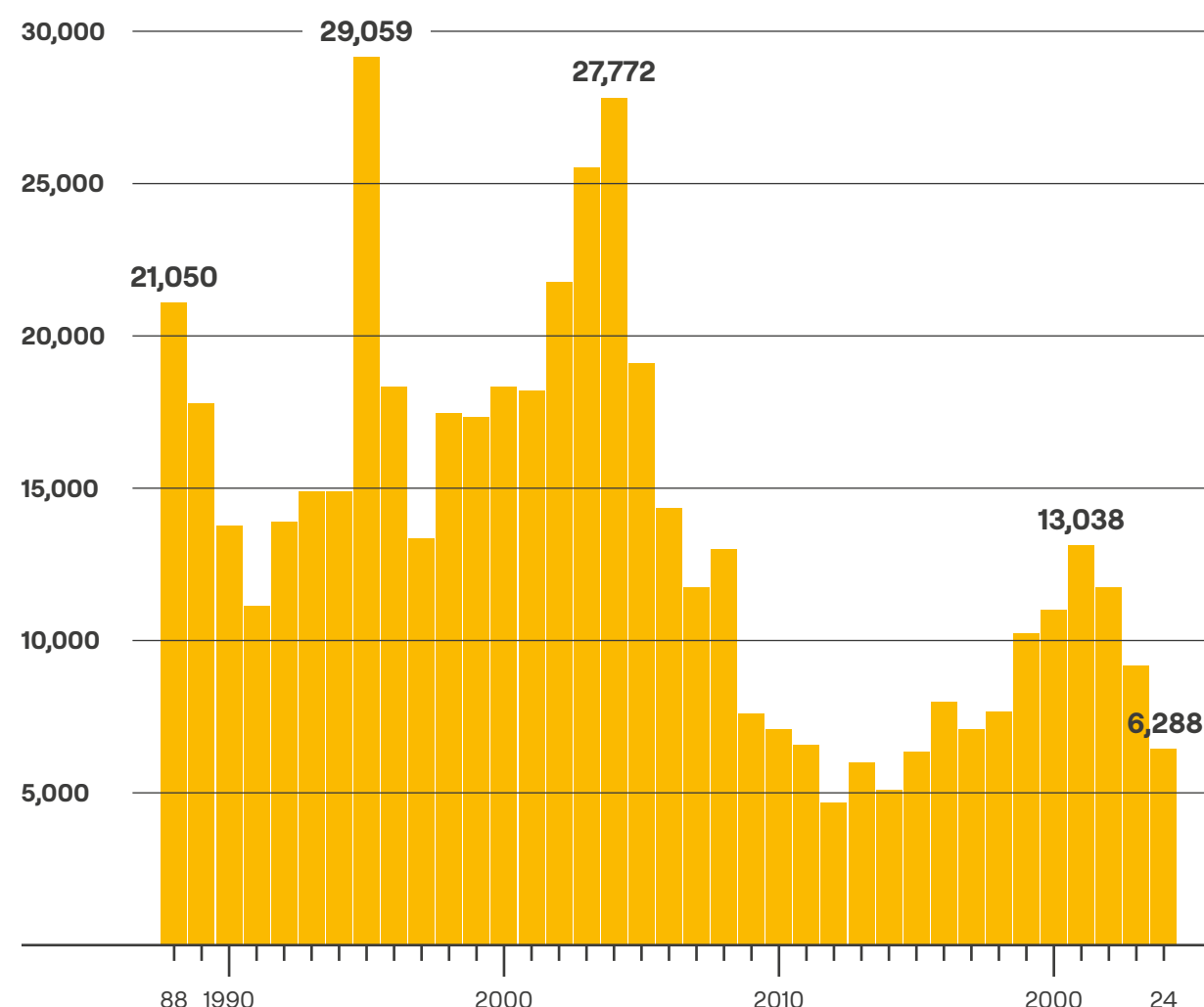
1. Main Highlight to Celebrate

On the eve of COP 29 in Baku, the National Institute for Space Research (Inpe) reported another 30.6% decrease in Amazon deforestation, the best result in nine years. Across the historical series, which began in 1988, the deforestation rate was only lower in five other years,

from 2011 to 2015. Notably, a larger proportion of the deforested area compared to previous years was classified as being in the final stage of progressive degradation, where recurring wildfires lead to forest loss: 27.41% of deforestation between August 2023 and July 2024.

DEFORESTATION IN THE AMAZON

Annual deforestation rate in the Amazon since 1988 (in km²)*



* The deforestation rate is measured between August and July of the following year
Source: Inpe

These nearly 1,600 km² of forests that disappeared due to fire in a single year, however, do not fully reflect the increase in wildfires in the region, which has been exacerbated by climate change.

In the land-use change sector, the Cerrado, Brazil's second-largest biome, recorded its first decrease in deforestation after five consecutive years of increase. Native vegetation loss remains concentrated in the Matopiba frontier region (Maranhão, Tocantins, Piauí, and Bahia), where grain production, particularly soybeans—the country's leading export product—is expanding. The government has indicated incentives to curb deforestation in this region. In December, the Ministry of Environment (MMA) updated criteria for including municipalities in the Cerrado on the priority list for combating deforestation. These criteria had not been revised since 2010. More than half of the deforestation in the biome is legally authorized.

According to estimates released by the Ministry of Environment and Climate Change (MMA), the reduction in deforestation in the two biomes between 2022 and 2024 prevented the release of 400.8 million tons of CO₂e into the atmosphere. This value is close to the difference between greenhouse gas emissions recorded in 2020 and the commitment made for 2025 under the NDC, aiming for a reduction to 1.32 GtCO₂e.

Brazil's new NDC reaffirms the goal of zero deforestation but clarifies that it refers to "illegal" zero deforestation: "through the elimination of illegal deforestation and compensation for the legal suppression of native vegetation." The text submitted to the United Nations in November states that Brazil will establish positive economic incentives for maintaining forests on private rural properties. The forest law permits rural landowners to deforest between 20% and 80% of their land, depending on the biome.

Calculations by the Climate Observatory indicate that Brazil's NDC still allows for deforestation of approximately 5,000 to 10,000 km² per year across different biomes⁽⁷⁾.

(7) <https://oc.eco.br/wp-content/uploads/2024/11/BREVE-ANALISE-DA-SEGUNDA-NDC-DO-BRASIL-1.pdf>

DEFORESTATION IN THE CERRADO

Annual deforestation rate in the Cerrado since 2002 (in km²)*

2002	56,672
2004	57,168
2006	33,554
2008	32,269
2010	19,822
2012	17,954
2013	13,482
2014	10,905
2015	11,129
2016	7,497
2017	7,119
2018	7,260
2019	6,318
2020	7,908
2021	8,532
2022	10,690
2023	11,012
2024	8,173

* The deforestation rate is measured between August and July of the following year. Source: Inpe

2. Additional measures for deforestation control are anticipated

The reduction in emissions in the land-use sector relied primarily on increased monitoring and the fight against environmental crimes. However, these command-and-control measures have limited effectiveness in the broader efforts to conserve standing forests.

The Amazon Deforestation Prevention and Control Plan (PPCDAm)⁽⁸⁾ includes the development and implementation of a National Bioeconomy Development Plan⁽⁹⁾ by 2024, which has yet to be completed. In June, the National Bioeconomy Strategy was published, but the National Commission responsible for drafting the plan was only established in November. The commission was tasked with producing the plan within 60 days of its first meeting, which had not been scheduled by the time this report was finalized.

Another goal of the PPCDAm is to allocate 29.5 million hectares of federal public forests to conservation purposes by 2027, targeting areas vulnerable to deforestation. By the end of this year, it is expected that 15 million hectares will be designated for study. Meanwhile, the PPCerrado⁽¹⁰⁾ plans to allocate an additional 1.2 million hectares of federal public forests to Conservation Units (UCs) and the recognition of traditional community rights.

The law on payment for environmental services, enacted in 2021, remains unregulated. The regulation was expected to undergo public consultation in 2024, but no date had been set by the time this report

was finalized.

The expansion of protected areas, including Conservation Units (UCs) and Indigenous Lands (TIs), increased by 153,000 hectares this year. However, most of the UCs created were Private Natural Heritage Reserves (RPPNs), which, despite their importance, contributed minimally to the total expansion in area, adding just 1,527 hectares across 20 RPPNs. The remaining four Conservation Units – created under the categories of Extractive Reserve, Natural Monument, and Wildlife Refuge – accounted for 106,237 hectares.

Regarding Indigenous Lands, the Ministry of Justice and Public Security had committed to⁽¹¹⁾ the Ministry of Indigenous Peoples to homologate 14 TIs within the first 100 days of the new administration. By early December 2024, 13 homologations had been published, five of which occurred in 2024, totaling 45,000 hectares. Additionally, 11 areas, covering over 1 million hectares, were recognized as permanent territories for Indigenous communities, pending homologation to be officially accounted for.

Although not classified as protected areas, quilombo lands represent a key lens of climate justice in the territorial planning agenda. In addition to preserving the communities' well-being, these lands contribute to mitigating GHG emissions and play a critical role in climate adaptation strategies. In 2024, 21 quilombola territories were recognized across various Brazilian states.

THE LAW ON PAYMENT FOR ENVIRONMENTAL SERVICES, ENACTED IN 2021, HAS NOT YET BEEN REGULATED. A PUBLIC CONSULTATION ON ITS REGULATION WAS EXPECTED IN 2024

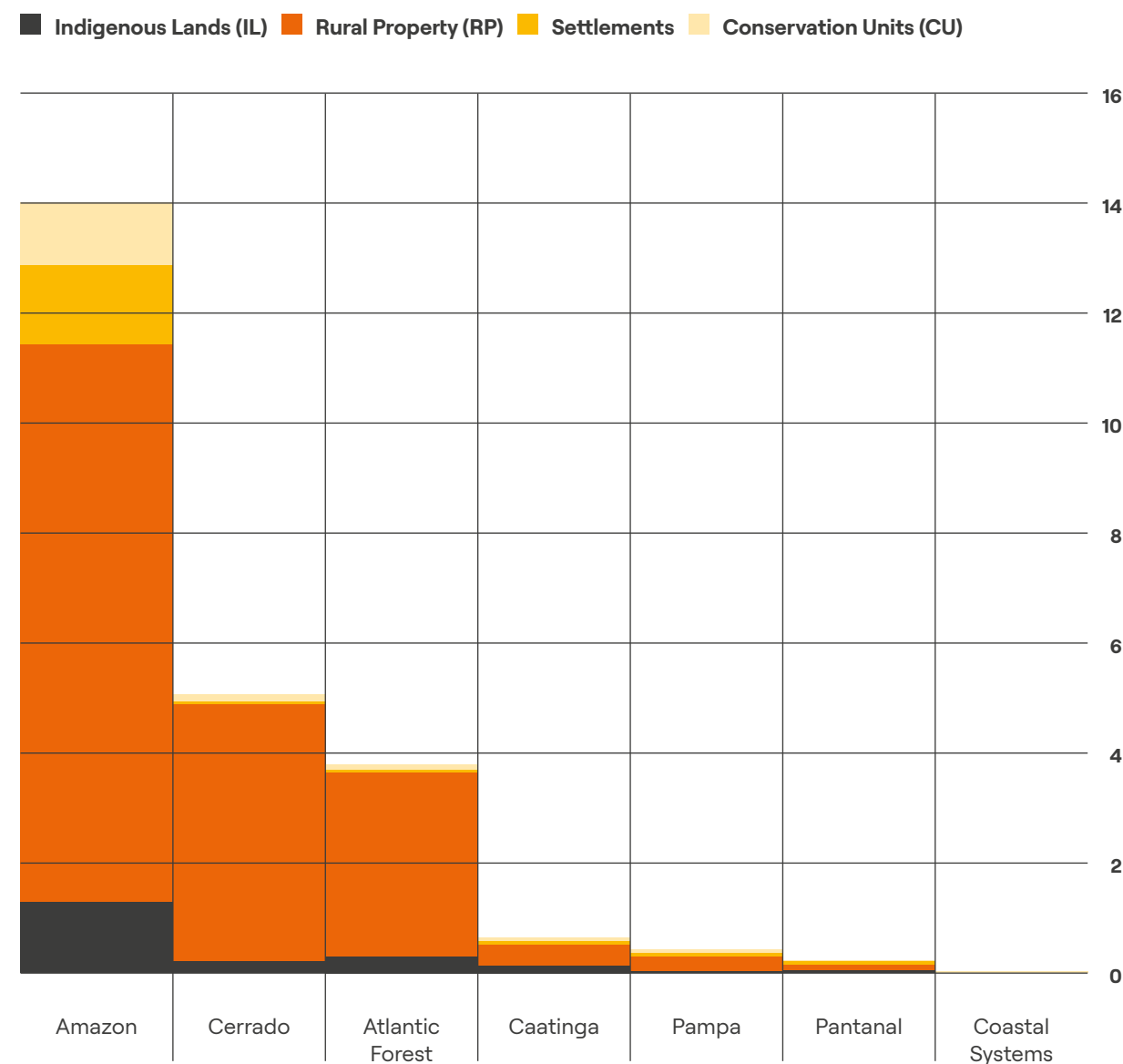
3. Forest restoration maintains the goal set in 2016

The National Native Vegetation Recovery Plan (Planaveg) represents one of the most important strategies for mitigating emissions (through carbon capture) and adapting to cli-

mate change. Forest restoration is highlighted in the text of Brazil's new NDC as a fundamental element of the country's strategy to achieve climate neutrality by 2050.

UPDATED ESTIMATE OF FOREST DEBT

Debt by area type and biome (in millions of hectares)



(8) https://www.gov.br/mma/pt-br/ppcdam_2023_sumario-rev.pdf

(9) https://www.planalto.gov.br/ccivil_03/_Ato2023-2026/2024/Decreto/D12044.htm

(10) https://www.gov.br/mma/pt-br/assuntos/combate-ao-desmatamento-queimadas-e-ordenamento-ambiental-territorial/control-e-do-desmatamento-1/ppcerrado/ppcerrado_4fase.pdf

(11) <https://apiboficial.org/2024/04/20/473-dias-de-governo-e-promessas-sobre-demarcacoes-de-lula-continuum-pendentes/>

UPDATED ESTIMATE OF FOREST DEBT
Liabilities by type of area and by biome (in hectares)

	IL	RP	Settlements	CU	TOTAL
Amazon	1,228,550	10,220,294	1,485,463	1,096,074	14,030,381
Cerrado	191,406	4,673,965	53,079	116,768	5,035,218
Atlantic Forest	219,176	3,423,890	19,235	63,698	3,725,999
Caatinga	100,529	417,711	11,529	28,290	558,059
Pampa	4,717	310,095	1,446	2,306	318,564
Pantanal	20,023	86,333	4,254	8	110,618
Coastal Systems	--	--	--	7,539	7,539
	1,764,401	19,132,288	1,575,006	1,314,683	23,786,378

Source: Planaveg, Ministry of Environment and Climate Change (MMA)

The new version of Planaveg, covering the 2025–2028 period, was submitted for public consultation in September 2024. It reaffirms the goal set in Brazil's first NDC: to restore 12 million hectares by 2030. However, the environmental liabilities on rural properties have been re-estimated to 23.8 million hectares. The largest share of this goal (9 million hectares) relies on the environmental regularization of rural properties under the rules established by the Forest Code in 2012, which have yet to be fully implemented. The insufficient progress of the Rural Environmental Registry (CAR) continues to hinder the implementation of the Forest Code and the restoration of degraded areas on private land. After 12 years, only 3%⁽¹²⁾ of properties have had their

CAR analysis completed, further exacerbated by the fact that the government has not released updated database figures since October 2023.

An additional 2 million hectares of vegetation will be restored, according to Planaveg, through the expansion of sustainable agriculture in agrarian reform settlements and family farming. The remaining 1 million hectares will be restored in Conservation Units (UCs), Indigenous Lands (TIs), and public forests, as part of the BNDES's Restaura Amazônia program, which will be discussed further.

The outcomes of Planaveg are critical to Brazil's target of achieving net-zero emissions by 2050 and to halting the ongoing degradation of the Amazon.

(12) Where Are We in the Implementation of the Forest Code? A Snapshot of the CAR and PRA in Brazilian States – 2024 Edition

4. Misaligned Agriculture

Agriculture, the second-largest emitter of greenhouse gases in Brazil, behind only land-use change – of which it is also a contributor – has no clear indicators of progress in efforts to reduce its emissions. These emissions have been rising since 2018. Between 2022 and 2023, the sector's emissions increased by 2%, reaching 631 million tons of CO₂e, according to SEEG⁽¹³⁾.

The 2024/2025 Crop Plan allocates only 2%⁽¹⁴⁾ of the total credit available to rural producers to

the Renovagro program, which funds low-carbon emission technologies. This amount represents just 15.7% of investments supported by subsidized interest rates funded by taxpayers. This small portion of rural credit directed toward low-carbon agriculture is one of the critical shortcomings identified so far.

For now, until the sectoral mitigation plan for agriculture is released as part of the Climate Plan, the goals established in 2021 under the ABC+ Plan remain in effect.

ABC+ PLAN TARGETS FOR MITIGATING AGRICULTURAL EMISSIONS

The emission reduction target by 2030 is more than six times the total achieved during the first phase of the ABC Plan, from 2010 to 2020. This target largely depends on the expansion of planted forests, the management of animal production waste, and the recovery of degraded pastures

TECHNOLOGIES		TARGET (in millions)	MITIGATION (in millions)
Practices for Recovery of Degraded Pastures (PRDP) • (in ha)		30.0	113.7
No-Till Farming System (SPD)	No-Till Grain Farming System (SPDG) • (in ha)	12.5	12.1
	No-Till Vegetable Farming System (SPDH) • (in ha)	0.08	0.88
Integrated Systems (SIN)	Crop-Livestock-Forest Integration (ILFP) • (in ha)	10.0	34.1
	Agroforestry Systems (SAF) • (in ha)	0.1	37.9
Planted Forests (FP) • (in ha)		4.0	510.0
Bio-inputs (BI) • (in ha)		13.0	23.4
Irrigated Systems (SI) • (in ha)		3.0	50.0
Animal Production Waste Management (MRPA) • (in m ³)		208.4	277.8
Intensive Finishing (TI) • (number of animals)		5.0	16.24
TOTAL ABC+		(in hectares)	72.68
		(in m ³)	208.4
		(in number of animals)	5.0
			1,076.12 Mg CO ₂ eq

(13) <https://plataforma.seeg.eco.br/>

(14) https://plataforma.seeg.eco.br/?highlight=br-net-emissions-metano&_gl=1*7cdxeh*_ga*MzMwNjYzNDkwLjE3MTI2ODI2NTI*_ga_XZWSWEJDWQ*MTcyODU4NzI4OS4xOS4wLjE3MTg1ODcyODkuMC4wLjA

The public monitoring of the ABC+ Plan, adopted in 2020 following the first decade of the ABC Plan, is currently limited to a tracking dashboard for one of the plan's lines. The management dashboard⁽¹⁵⁾ reports that between January 2020 and July 2024, financing for the recovery of degraded pastures totaled R\$ 11.6 billion. During this period, 55 million hectares of degraded pastures were reportedly restored. In the first phase of the plan, the Ministry of Agriculture and Livestock (MAPA) recorded the restoration of 26.8 million hectares.

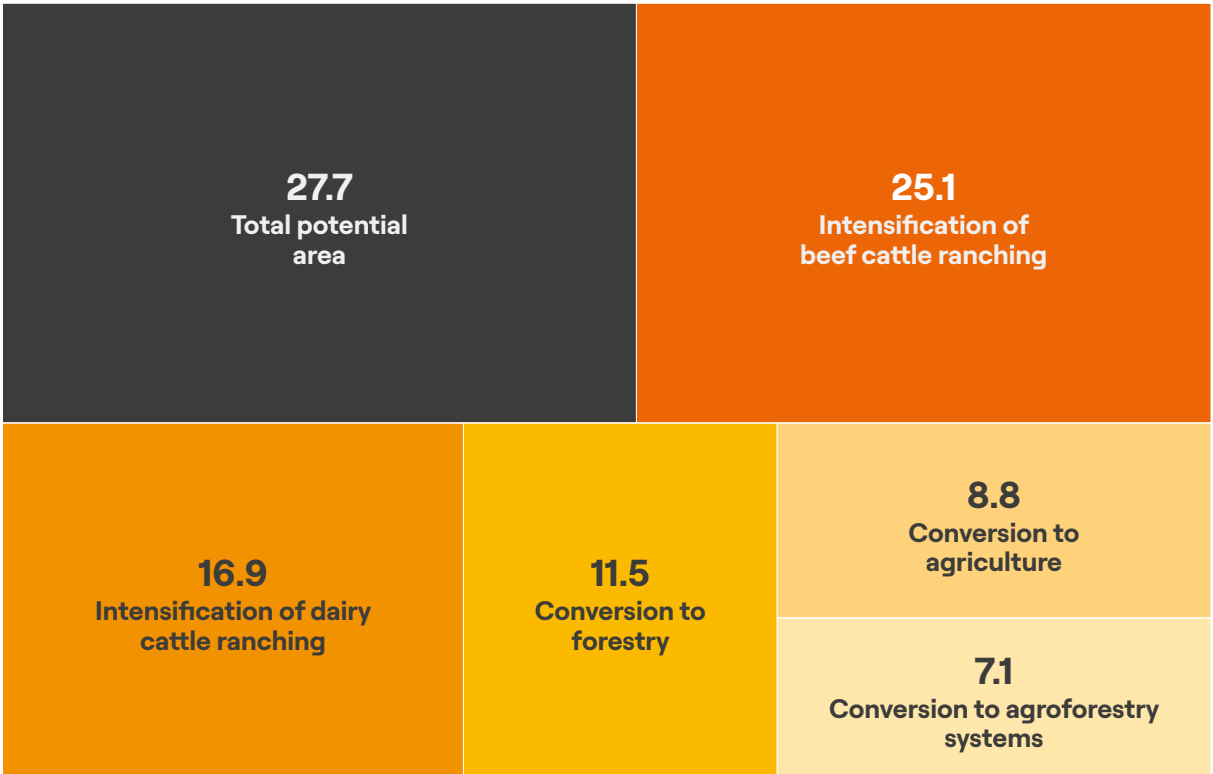
Despite these figures from the ministry, there are still an estimated 108 million

hectares of degraded pasture in the country, representing approximately 60% of the total area occupied by livestock farming, according to MAPA.

The design of public policies aimed at reducing emissions in the sector in 2024 focused on attracting greater investments to make more areas suitable for grazing, as outlined in the National Program for the Conversion of Degraded Pastures into Sustainable Agricultural and Forestry Production Systems (PNCPD), launched in December 2023 and still in its final stages of development. The cost of recovering 23.1 million hectares is estimated at R\$ 139 billion⁽¹⁶⁾.

PROGRAM FOR THE CONVERSION OF DEGRADED PASTURES

Potential area for conversion in each agricultural and forestry system (in millions of hectares)



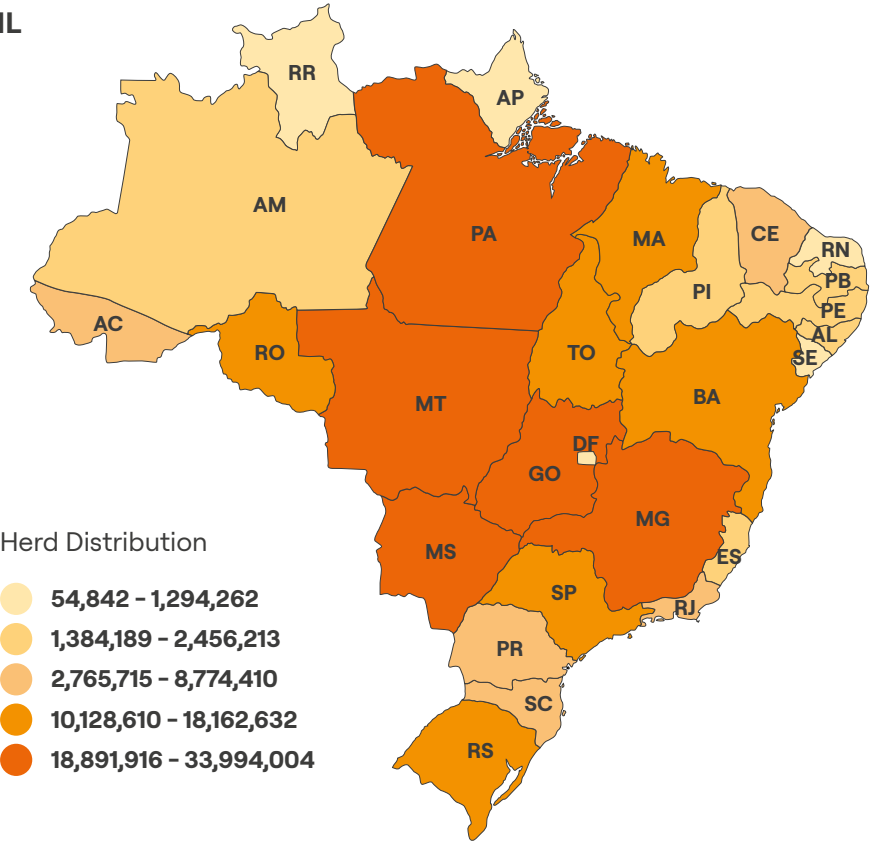
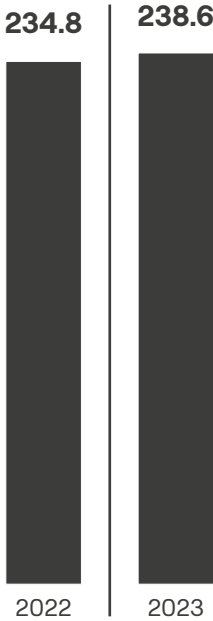
Source: Ministry of Agriculture and Livestock (MAPA)

(15) <https://dd.serpro.gov.br/publico/sense/app/1a98b6b3-82eb-467f-bcbb-b48a31161144/sheet/88d4a99a-af35-4556-a160-6807baaac57/state/analysis>

(16) MAPA, 2024. Conversion of degraded pastures into sustainable agricultural and forestry production systems. Area prioritization plan and investment estimates

THE LIVESTOCK IN BRAZIL

Herd size
(in millions of heads)



Source: Brazilian Institute of Geography and Statistics (IBGE)

The program aims to convert most of the degraded pasture into new grazing land, as indicated in the table below. This approach seems incompatible with another likely priority of the ongoing Climate Plan: increasing biofuel production, including carbon capture and storage. According to the program's details, only one-third of the potential area would be converted to agriculture.

The agricultural sector accounted for 75% of methane emissions in Brazil in 2022, primarily from the digestive process of cattle. However, the sector has yet to outline how it plans to reduce these emissions by 30% by 2030, as pledged in 2021 when Brazil signed the Global Methane Pledge.

The cattle herd in Brazil continues to grow. According to IBGE⁽¹⁷⁾, there were 238.6 million head of cattle in 2023, approximately 4

million more than the previous year. Brazil continues to have more cattle than people. In 2023, the Brazilian population was estimated at 212.6 million people.

With some resistance in efforts to reduce emissions in agriculture, the sector has been investing in climate change adaptation measures. Among these, the Ministry highlights plans to triple the resources available under the Rural Insurance Premium Subsidy Program by 2032 and improve the Agricultural Climate Risk Zoning program as a risk management tool for agriculture by 2028.

Given the increasing drought periods, MAPA advocates for accelerating irrigation permits and streamlining the environmental licensing process for water storage dams on rural properties.

(17) <https://www.ibge.gov.br/explica/producao-agropecuaria/bovinos/br>

5. Renewable Energy on the Rise, but New Barriers for Consumers

The electric power generation and distribution sector forms the backbone of Brazil's production systems, ensuring quality of life and numerous opportunities for the entire population. Unlike other economies, this sector is not the primary source of emissions in the country. However, it still deserves significant attention.

Brazil continues to rely on a predominantly renewable energy matrix, with a strong contribution from hydropower generation, despite growing challenges posed by the climate crisis, such as changes in rainfall patterns. The need for climate adaptation of hydropower systems is evident.

In 2024, the Brazilian government took targeted measures in this direction, revising operational and compensation models to improve reservoir management and promote renewable generation capacity contracts. For instance, the Ministry of Mines and Energy (MME) published Resolution No. 1/2024 of the National Energy Policy Council (CNPE), which enhances the governance of methodologies and computational programs used in the electricity sector.

Additionally, the MME launched a public consultation for the Capacity Reserve Auction in the form of Power, utilizing energy storage systems, scheduled for 2025. This measure aims to incorporate energy storage technologies, such as batteries, to increase the flexibility and resilience of Brazil's electricity system.

It will be crucial to monitor how the energy sector's adaptation plan progresses structur-

ally in addressing climate adaptation needs.

Regarding short- and medium-term energy security, the Minister of Mines and Energy, Alexandre Silveira, declared in September 2024 that there is no imminent risk of rationing. However, the persistent drought since 2023 has compromised hydropower generation, increasing reliance on thermoelectric plants—which are more expensive and polluting.

This reality has led to what could be termed “brown inflation.” Unlike the concept of “green inflation,” used in other contexts to describe the cost impact of transitioning to clean energy, in Brazil, inflationary pressures are tied to increased fossil fuel use in electricity generation. The activation of thermoelectric plants has raised energy production costs, which are ultimately passed on to consumers.

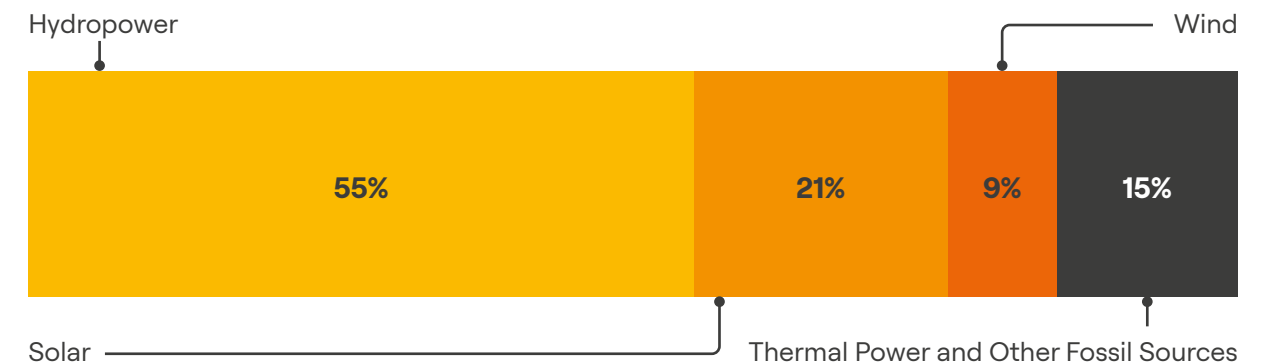
In September, the National Electric Energy Agency (Aneel) activated the tier 2 red tariff flag, adding an extra charge of R\$ 7.88 per 100 kWh consumed due to the drought and increased use of fossil fuels. By December, the green tariff flag was reinstated, eliminating the additional charge and providing temporary relief. However, further tariff increases are not ruled out for 2025, depending on hydrological conditions.

The rising cost of energy has driven many consumers to seek self-production through solar panels and other residential equipment, despite the lack of credit lines or tax incentives. In fact, 2024 saw an increase in barriers to self-production and the consumption of solar energy.

THERMAL POWER INFLATION: THE ACTIVATION OF THERMAL POWER PLANTS HAS INCREASED ENERGY PRODUCTION COSTS, WHICH ARE ULTIMATELY PASSED ON TO CONSUMERS

BRAZILIAN ELECTRICITY MATRIX IN 2024: DOMINANCE OF RENEWABLE SOURCES

Hydropower remains the leader with 55% of capacity, while solar and wind energy stand out, accounting for 30% of the national electricity matrix (installed capacity in %)



Source: Brazilian Photovoltaic Solar Energy Association (ABSOLAR), Ministry of Mines and Energy (MME), Energy Research Company (EPE), and National Electric System Operator (ONS)

The federal government increased the import tax on solar panels to 25%, as published in the Diário Oficial da União on November 13, 2024. This tariff hike significantly impacts the cost of imported solar panels, which account for more than 95% of the national market. According to the Brazilian Photovoltaic Solar Energy Association (ABSOLAR), local panel production is limited to 1 GW per year, whereas imports in 2023 exceeded 17 GW.

While the direct impact on final consumers is considered small, the increase may negatively affect small and medium-sized enterprises. Additionally, at the beginning of the year, the government revoked tax exemptions (ex-tariff benefits) for 27 models of solar inverters, essential components that convert direct current to alternating current. These policy changes have increased pressure on Brazil's solar energy supply chain.

Despite these challenges, the share of renewable energy sources—particularly solar and wind—has grown significantly, solidifying their role as essential components of the national electricity system. In December 2024, Brazil reached 50 GW of installed so-

lar energy capacity, representing 20.7% of the national electricity matrix⁽¹⁸⁾. This milestone positions Brazil as the sixth-largest solar energy producer in the world.

As of November 2024, Brazil surpassed 29 GW of installed wind energy capacity, with 890 wind farms operating across 12 states, 85% of which are located in the Northeast region. Projections indicate that by 2028, installed capacity will exceed 44 GW, making up 13.2% of Brazil's electricity matrix.

From a social policy perspective, the Energia Limpa no Minha Casa, Minha Vida (Clean Energy in My House, My Life) program, launched in July 2024, aims to reduce electricity costs for low-income families by installing renewable energy generation systems in residential units. The federal government allocated R\$ 3 billion to install solar panels in 500,000 homes by 2027. According to government reports, by December 2024, the program had already contracted more than 1 million housing units in the Minha Casa, Minha Vida categories 1 and 2. However, there are no specific publicly available data on how many of these units have actually been equipped with renewable energy systems.

(18) <https://www.absolar.org.br/noticia/a-geracao-de-energia-solar-no-brasil-acaba-de-atingir-a-marca-historica-de-50-gigawatts-gw-de-potencia-instalada-operacional-segundo-levantamento-da-associacao-brasileira-de-energia-solar-fotovoltaica/>

6. Is There an Energy Transition?

Despite the increased share of renewable energy sources, which now account for 49.1% of Brazil's energy supply (compared to the 14.7% global average), the country still expects to increase oil and gas production⁽¹⁹⁾. The Ten-Year Energy Plan (PDE)⁽²⁰⁾ projects an increase in oil and gas production through 2030 and 2031, respectively. In the case of oil, the plan anticipates the expansion of new exploration areas, including the Foz do Amazonas.

The updated PDE-2034⁽²¹⁾ estimates that investments in energy supply expansion over the next decade will reach approximately R\$ 3.2 trillion. Of this total, 78% is allocated to the oil and natural gas industry, with the remaining portion directed toward electric power and bio-fuels. In this scenario, the share of natural gas in domestic energy supply is expected to rise from 11% to 14%, while oil's share will decline from 35% to 30%.

Brazil's new NDC mentions the "transition away from fossil fuels", an agreement reached at COP-28 in Dubai, but emphasizes that developed countries should be the first to phase out these energy sources. The document states that Brazil "will seek the gradual replacement" of fossil fuel use through electrification and the adoption of advanced bio-fuels, introducing an unprecedented mandate for developing domestic transition measures.

Over the 12 months leading up to October 2024, Brazil produced an average of 4.2 million barrels of oil equivalent per month in oil and

gas, marking an increase compared to the previous year. The country is now ranked as the eighth-largest oil producer in the world, surpassing the United Arab Emirates⁽²²⁾ and moving up one position from the previous year. The leading global producers remain the United States, Saudi Arabia, Russia, Canada, Iraq, China, and Iran.

The 2025 Annual Budget Bill (PLOA), submitted by the federal government, projects R\$ 126.8 billion in revenue from natural resource exploration, including oil and natural gas. This represents an increase from the R\$ 110.1 billion estimated for 2024. Additionally, the PLOA 2025 forecasts an average oil price of US\$ 80.79 per barrel, higher than the previous estimate of US\$ 75.77. These projections indicate an expected growth in oil and gas sector revenues for the coming year.

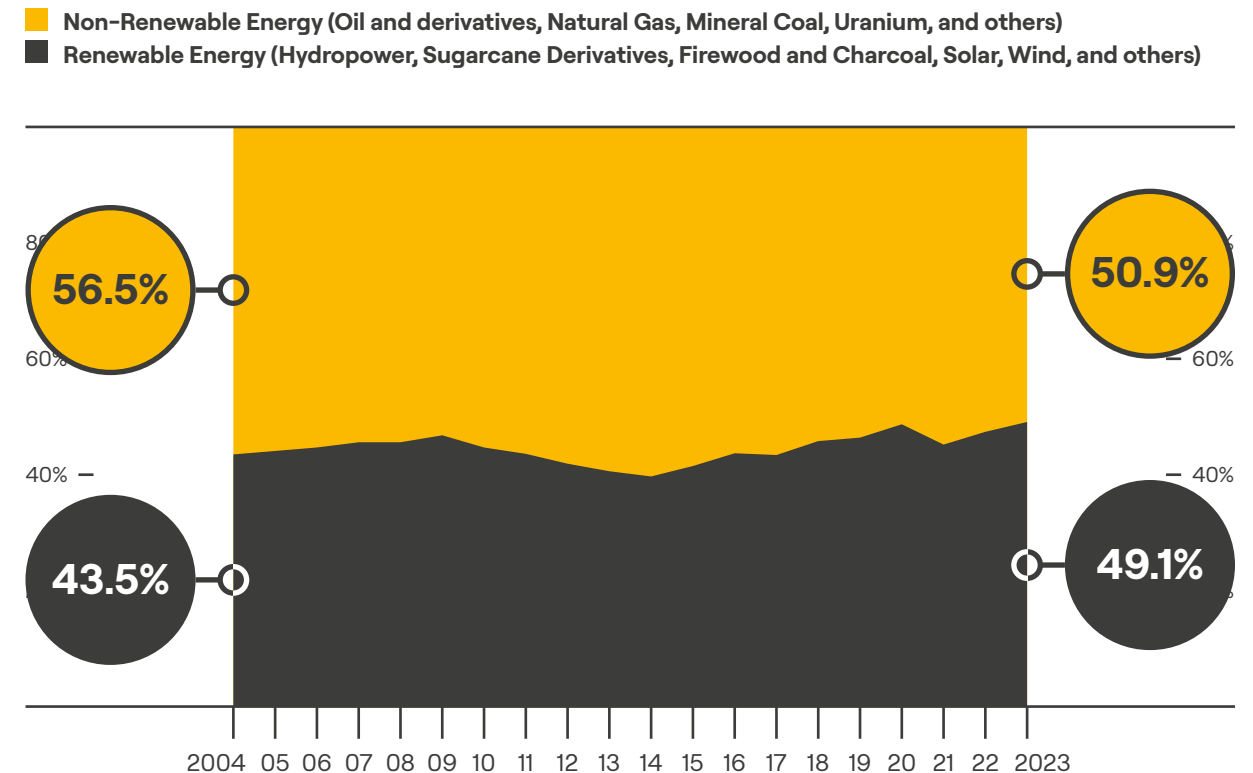
In August 2024, a decree established the National Energy Transition Policy⁽²³⁾, which precedes the development of a formal Energy Transition Plan, although no timeline has been set for its completion. The policy's definition of a "just transition" includes minimizing negative impacts even for companies, which could potentially extend the lifespan of coal-fired power plants.

On the same day, another decree⁽²⁴⁾ was issued to increase the supply of natural gas in the country – despite its fossil fuel origin – indicating that Brazil's energy transition may not necessarily mean a rapid decline in fossil fuel investments.

BRAZIL PRODUCED A MONTHLY AVERAGE OF 4.2 MILLION BARRELS OF OIL EQUIVALENT IN OIL AND GAS OVER THE PAST 12 MONTHS AND IS THE 8TH LARGEST OIL PRODUCER IN THE WORLD

SHARE OF RENEWABLE SOURCES IN BRAZIL'S ENERGY MATRIX

Energy supply in Brazil (percentage by source)



Source: National Energy Balance (BEN), a tool of EPE (Energy Research Company)

Along the same lines, Brazil's new NDC also states that the country is enabling a second wave of the energy transition through a new cycle of public policies, highlighting the following:



GREEN HYDROGEN LAW

Sanctioned in August, the law includes tax incentives of up to R\$ 18.3 billion through 2032. The legal framework allows for a higher emission threshold than initially expected, but the adoption of this new fuel is seen as a promising solution for reducing greenhouse gas emissions in transportation and industry. The law is considered one of the achievements of the Nova Indústria Brasil (NIB) under Mission 5, which focuses on decarbonization and energy transition.

The first incentive concession was granted to Brasil Fortescue Sustainable Indústria Ltda for hydrogen processing in Pecém (CE)



FUTURE FUELS LAW

Sanctioned in October, this law stimulates the production of biofuels in Brazil, aiming to promote decarbonization in the transportation sector. The law establishes national programs for: green diesel, sustainable aviation fuel (SAF), and biomethane. Additionally, it increases the ethanol and biodiesel blend in gasoline and diesel. The law also sets the regulatory framework for carbon capture and storage (CCS), which is recognized as an advancement under the Nova Indústria Brasil (NIB) initiative. The announced goal of the "Future Fuel" program is to prevent 705 million tons of CO₂ emissions by 2037.

(19) https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-819/topico-715/BEN_S%C3%ADntese_2024_PT.pdf

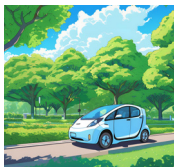
(20) https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-804/topico-709/Caderno%20de%20Previs%C3%A3o%20da%20Produ%C3%A7%C3%A3o%20-%20PDE%202034_padr%C3%A3o_V6.pdf

(21) [https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-804/topico-709/PDE%202034_Consolidac%C3%A7%C3%A3o%20de%20Resultados_20241106%20\(1\).pdf](https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-804/topico-709/PDE%202034_Consolidac%C3%A7%C3%A3o%20de%20Resultados_20241106%20(1).pdf)

(22) https://www.ibp.org.br/observatorio-do-setor/snapshots/maiores-produtores-mundiais-de-petroleo/?utm_source=chatgpt.com

(23) <http://www.in.gov.br/web/dou/-/despacho-do-presidente-da-republica-580836599>

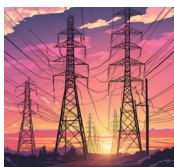
(24) <https://www.in.gov.br/en/web/dou/-/decreto-n-12.153-de-26-de-agosto-de-2024-580606455>



MOVER PROGRAM (GREEN MOBILITY)

A total of 116 automotive companies and supply chain

manufacturers are already eligible to receive R\$ 19.3 billion in financial credits between 2024 and 2028. These credits can be used to offset federal taxes in exchange for investments in Research & Development. The Ministry of Development, Industry, and Trade (MDIC) considers the program an incentive for investments in energy efficiency. In 2025, the ministry will announce the launch of a National Industrial Decarbonization Strategy



AMAZON ENERGY PROGRAM

Launched in August 2023, the program aimed to prevent

the emission of 1.5 million tons of CO₂ by reducing reliance on diesel as the primary energy source for electricity generation in the Amazon region. Following the shutdown of the Parintins (AM) thermoelectric plant in 2023, no further progress updates on the program have been disclosed

Offshore wind power remains a key issue in this stage of Brazil's energy transition. A legal framework for establishing offshore wind farms was approved by Congress in December 2024. However, the bill included provisions requiring mandatory contracts for natural gas thermal power plants, which would be operational for up to 70% of the year, and an extension of the lifespan of coal-fired plants in southern Brazil from 2028 to 2050.

As of the publication of this report, President Lula had not yet sanctioned the law. The government has indicated that it may veto the controversial amendments, known as jabutis

(unrelated provisions inserted into legislation). If Congress overrides these vetoes, the government could pursue legal action.

Another major concern is the lack of a clear policy regarding the extraction of strategic minerals for the energy transition. While Brazil has been encouraging research and extraction of minerals such as lithium, there is still no clear stance on whether protected areas in the Amazon could be exploited for these resources.

The expansion of oil and gas exploration remains the most contentious aspect of Brazil's energy transition. The economic importance of oil, combined with the argument that developing countries should have more time to phase out fossil fuel production, has led to government and Petrobras resistance in limiting new exploration projects.

One of the key areas of concern is the Equatorial Margin, an offshore region extending from Amapá to Rio Grande do Norte, which includes the Amazon River Basin. In her inaugural speech as Petrobras President in June 2024, Magda Chambriard stated: "There is no energy transition without considering who will pay for it. And it is oil that will pay for this transition."⁽²⁵⁾

Brazil's continued expansion of fossil fuel production, without a clear timeline for phasing it out, suggests that its current energy policy does not yet constitute a true energy transition.

Under the Growth Acceleration Program (PAC), 64% of funding allocated to the energy transition and security sector is directed to the oil and gas industry, while only 12% is dedicated to clean energy generation⁽²⁶⁾.

Although Brazil has pledged to reach net-zero greenhouse gas emissions by 2050, it has not established interim deadlines for reducing fossil fuel use and production. These findings highlight the urgent need for a more defined and ambitious strategy to ensure an effective energy transition, aligned with international climate commitments and the promotion of sustainable energy sources.

7. Artificial Intelligence (AI) Closer to Climate Policy

On November 12, 2024, the Brazilian Artificial Intelligence Plan (PBIA) was officially published in the *Diário Oficial da União*, marking its official adoption. The plan sets guidelines for the ethical development and application of AI in Brazil, with a projected budget of R\$ 23 billion through 2028. Developed as a proposal by the National Council for Science and Technology (CCT), the PBIA includes innovative initiatives aimed at transforming strategic sectors and contributing to climate goals.

One of the key advancements is the creation of the Intelligent System for Extreme Climate Forecasting (Sipex), designed to anticipate extreme weather events up to 12 months in advance. This system could become an essential tool for reducing human and economic losses, particularly in a country highly vulnerable to climate change.

Another milestone is the commitment to invest R\$ 500 million in renewable energy infrastructure to support 42 projects over the next five years. This is a crucial measure given the growing energy demands of artificial intelligence. These projects will focus on: expanding clean energy sources (such as solar and wind power), implementing efficient

cooling technologies, and developing low-energy consumption equipment for data centers and AI facilities.

The urgency is clear: data centers currently account for about 1% of global energy consumption, and demand is expected to increase exponentially in the coming years. Brazil, with abundant renewable energy sources and geographical advantages for data center operations, faces the challenge of ensuring that digital expansion does not compromise communities or overburden natural resources.

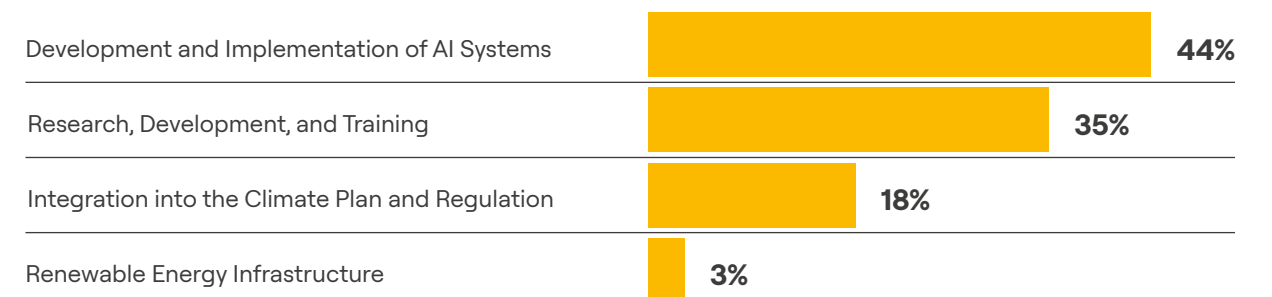
The PBIA still needs to be integrated into the Climate Plan in 2025 to maximize its impact. AI solutions can play a cross-cutting role, contributing to both climate mitigation and adaptation efforts.

Additionally, regulating AI use in Brazil remains an ongoing debate in Congress. Establishing a robust legal framework will be crucial to ensuring ethical and sustainable AI development.

With growing demand for data centers and digital infrastructure, 2025 will be a pivotal year for aligning these policies and leveraging the PBIA as a strategic tool to advance climate action.

DISTRIBUTION OF PBIA INVESTMENTS IN BRAZIL

With an investment of R\$ 23 billion until 2028, the PBIA aims to drive AI innovation, forecast extreme climate events, and integrate technology with renewable energy sources (in %)*



* Estimate Based on the Plan

(25) <https://www.cnnbrasil.com.br/economia/negocios/petroleo-vai-pagar-conta-da-transicao-energetica-diz-magda-chambriard/>

(26) <https://www1.folha.uol.com.br/ambiente/2024/02/brasil-nao-tem-plano-definido-para-abrir-mao-de-petroleo-e-gas.shtml>

8. Fiscal Policy Under Pressure from Climate Extremes

One of the major debates in Brazil's political and economic agenda in 2024 has been public debt. From disputes between the President of the Republic and the Central Bank President at the beginning of the year to the presentation of fiscal adjustment proposals by the Minister of Finance to Congress, this issue has dominated discussions.

However, in our view, climate policy remains in the blind spot of this conversation, despite its clear connection to fiscal sustainability and long-term economic growth.

With public debt approaching 80% of GDP and real interest rates among the highest in the world (8% in real terms), the country is already operating at its fiscal limit. In a warmer world with increasingly unstable weather patterns, the R\$ 50 billion spent on recovering from a single large-scale disaster, such as the floods in Rio Grande do Sul, represents nearly 75% of the total savings the government expects to achieve over two years through recent spending cuts.

This comparison highlights the enormous cost of inaction on climate change and rein-

forces the need for a fiscal approach that prioritizes resilience and adaptation.

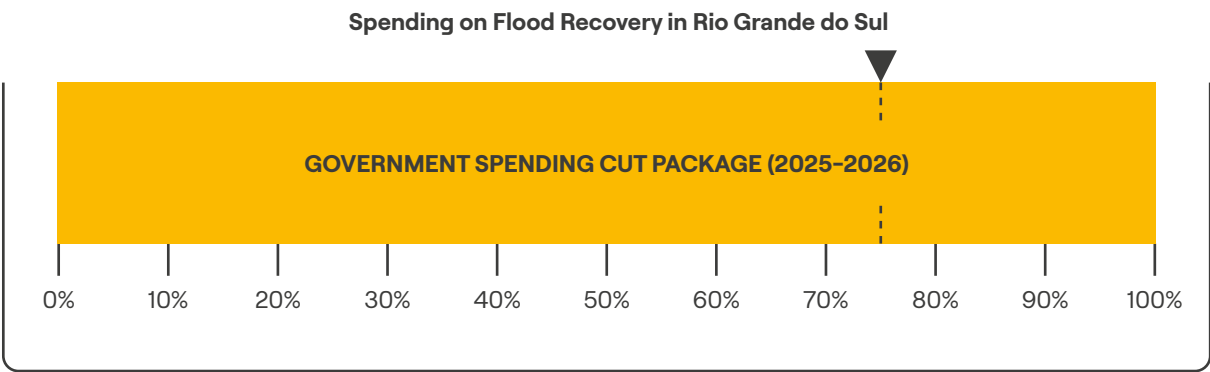
The floods have made one reality unavoidable: failing to incorporate climate risks into fiscal planning is equivalent to steering the economy blindly. The lack of robust mechanisms to predict and mitigate climate change impacts also perpetuates high interest rates and limits investments essential for sustainable growth.

Brazil still lacks a fiscal framework that prioritizes climate adaptation and sustainable development. However, an initial step in the right direction was taken this year when the Ministry of Planning and Budget (MPO) began identifying climate-related expenditures in the federal budget.

This initiative is part of the "Classifiers of Public Spending on Climate Change, Risk Management, and Biodiversity" project, which aims to apply methodologies developed by the Inter-American Development Bank (IDB) to enhance transparency and efficiency in public investments in critical areas affected by climate change.

THE BURDEN OF CLIMATE DISASTERS ON BRAZIL'S FISCAL ADJUSTMENT

The R\$ 50 billion spent on the 2024 floods in Rio Grande do Sul represents 75% of the total savings the government plans to achieve over two years through spending cuts, highlighting the impact of climate inaction on public finances



Source: Federal Government

9. Planning Brazil for 2050: A Country Impacted by Climate Change

In 2024, the Ministry of Planning and Budget (MPO), led by Simone Tebet, began drafting the Brazil 2050 Strategy, a long-term plan for the country's sustainable development. Ordinance No. 244, issued on August 7, 2024, established procedures and a deadline for the proposal's completion, set for July 31, 2025.

Although the MPO clarified that the Brazil 2050 Strategy is not equivalent to a Long-Term Strategy (LTS) to be submitted to the United Nations Framework Convention on Climate Change (UNFCCC), the framework addresses climate change impacts as

one of its core pillars.

The strategy's development will involve: situation analysis, identification of megatrends, scenario development, and assessment of strengths and weaknesses. The focus will be on sustainable development and reducing inequalities.

By incorporating the effects of climate change, the MPO aims to anticipate risks and enhance Brazil's ability to respond to future uncertainties, fostering structural public policies that prepare the country for climatic and demographic challenges through 2050.

BRAZIL 2050 STRATEGY VS. LONG-TERM STRATEGY

A comparison between the multisectoral approach of the Brazil 2050 Strategy and the climate commitment of Long-Term Strategies (LTS) submitted to the UNFCCC, highlighting differences in focus, mandatory requirements, and scope

ASPECT	BRAZIL 2050 STRATEGY	LONG-TERM STRATEGY (LTS)
Main Objective	Sustainable development and inequality reduction	Reduction of greenhouse gas (GHG) emissions
Implementation Timeline	Until 2050	Generally until 2050 or 2100
Focus	Structural policies for climate, economy, and demographics	Climate plans to meet UNFCCC commitments
Mandatory Requirement	Voluntary	Tied to Paris Agreement commitments
International Involvement	Not submitted to the UNFCCC	Mandatory submission to the UNFCCC
Approach	Multidimensional (climate, economy, demographics)	Focused on the transition to a low-carbon economy

Source: Ministry of Planning and Budget (MPO) and United Nations Framework Convention on Climate Change (UNFCCC)

10. Adaptation: A Term for the Future, Yet Closer Than Ever

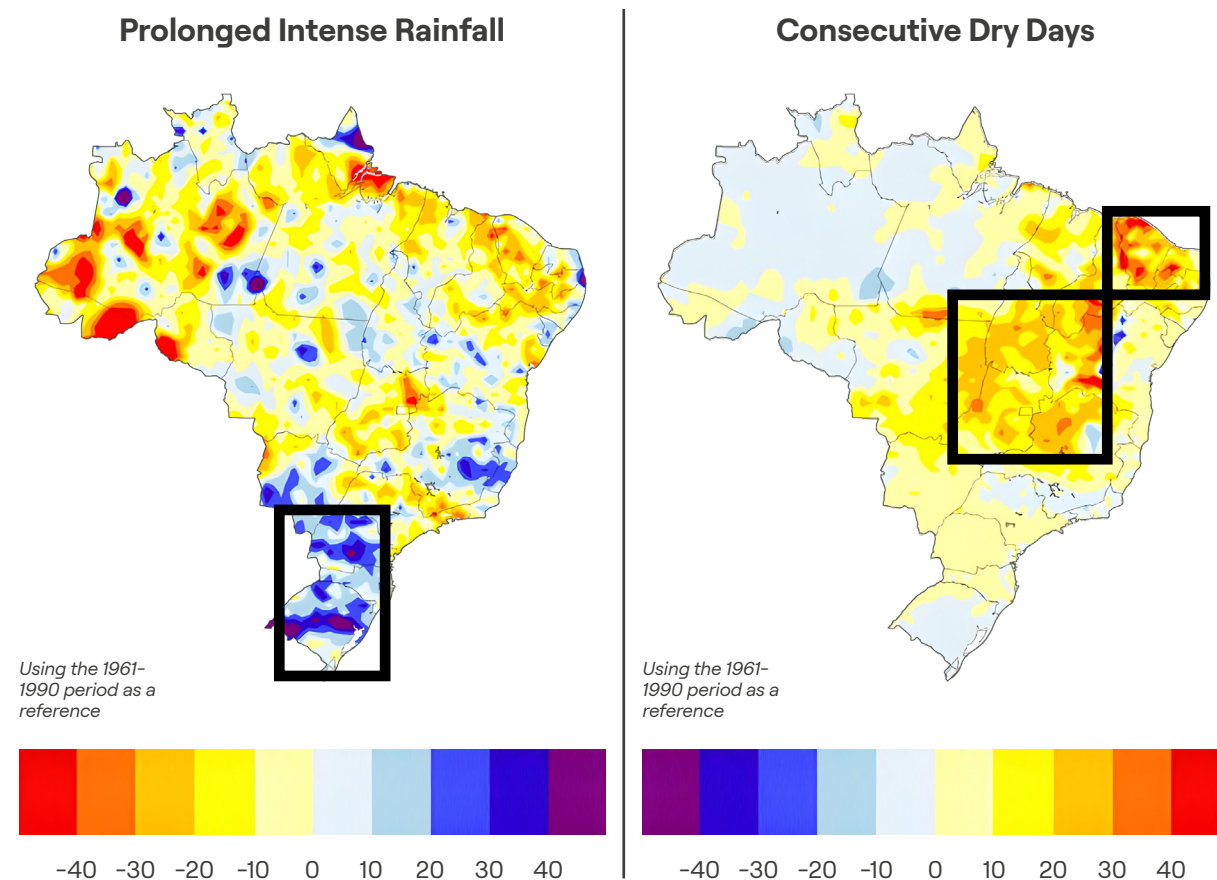
Brazil has introduced a National Adaptation Strategy⁽²⁷⁾, which was submitted for public consultation in a year when, in addition to severe floods, the country also faced its worst drought in 75 years, with portions of the Amazon, Cerrado, and Pantanal biomes consumed by wildfires.

As the first component of the Climate Adaptation Plan, the strategy aims to address dynamic and complex climate risks by setting monitorable targets and indicators to track the

increasingly severe climate impacts already observed. These impacts stem from extreme El Niño and La Niña events, but not exclusively. These atmospheric-oceanic phenomena are expected to intensify as global temperatures continue to rise. The implementation details and funding mechanisms for adaptation measures are still pending and are expected to be outlined within 16 sectoral plans, which are scheduled to be presented in January 2025.

OBSERVED IMPACT OF CLIMATE CHANGE

Anomalies in intense rainfall, dry days, and heat waves between 2011 and 2020



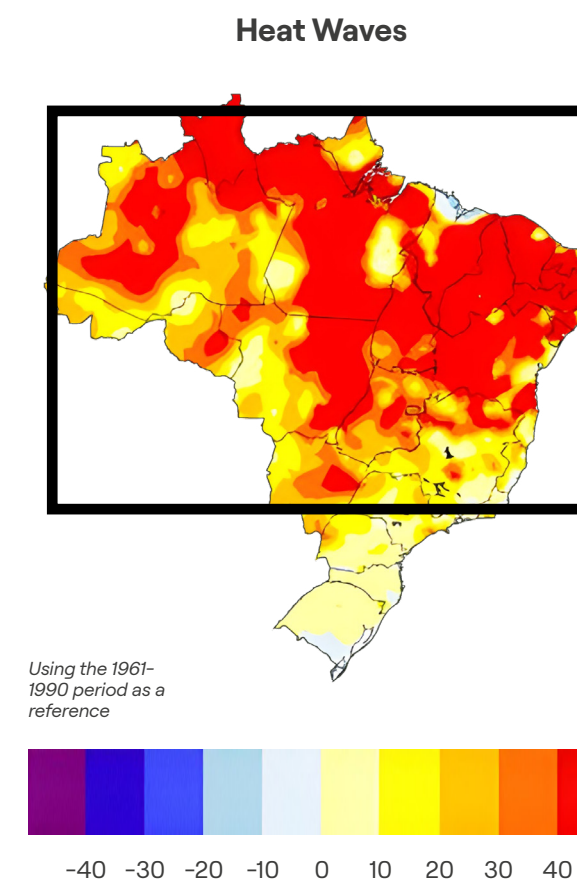
(27) <https://brasilparticipativo.presidencia.gov.br/processes/planoclima/f/315/>

It is estimated that climate change-related events caused over R\$ 421 billion in material damages in Brazil between 2014 and 2023, directly affecting nearly 5 million people.

The Brazil 2050 Strategy outlines a plau-

sible scenario with the following impacts, leading to loss of life, health risks, agricultural losses, water supply disruptions, energy generation challenges, and infrastructure damage:

- Increase in temperature and heat waves across all macro-regions
- Increase in annual rainfall in the South region
- Increase in extreme rainfall in the North, Southeast, and South regions
- Increase in droughts in the Northeast, Central-West, and Southeast regions
- Increase in severe winds in the North, Northeast, Southeast, and South regions
- Increase in sea level, ocean temperature, and marine heat waves
- Ocean acidification along the entire Brazilian coast



Source: MMA, National Adaptation Strategy (under public consultation)

Public spending on risk and disaster management has more than tripled in 2024, even before accounting for the billions of reais allocated as emergency credits for Rio Grande do Sul.

A program aimed at strengthening adaptive capacity in approximately 300 municipalities and regions identified as climate-vulnerable is expected to be launched this year. The Adapta-Cidades program will support the development of municipal adaptation plans, with the government's goal of engaging local governments in the initiative by the first quarter of 2025. This effort is part of a multi-level governance strategy, involving subnational actors more actively in climate adaptation.

The adaptation agenda is expected to gain more prominence across the Ministry of Environment and Climate Change (MMA) and other government ministries in 2025, as various departments are set to deliver adaptation-related actions at COP-30.

Public investments still lack full alignment with the climate agenda, although the Ministry of Planning and Budget (MPO) has begun incorporating a climate resilience framework into public spending evaluations – alongside fiscal balance and social justice. Additionally, the MPO is integrating climate change considerations into its long-term planning, with the Brazil 2050 Strategy expected to be released in 2025.

A Climate Emergency Response Plan was announced in June 2024, but as of now, it has yet to be officially launched.

11. Climate Financing Expands but Still Needs Greater Impact

The year 2024 will be remembered as a milestone for climate financing, not only due to the negotiation of the new global climate finance target (*NCQG – New Collective Quantified Goal on Climate Finance*) at COP-29 in Baku, but also because of the scaling up and diversification of financial instruments in Brazil.

Brazil's G20 presidency mobilized public and private stakeholders, leading to an unprecedented expansion of the domestic climate finance agenda.

The diversification of climate finance instruments in Brazil was particularly notable. The main financing mechanisms continue to be concessional loans, primarily from public programs such as the Climate Fund (Fundo Clima) and the Crop Plan (Plano Safra).

However, there was significant expansion in this area: guarantees, previously underutilized, were tested through the Ecoinvest program, blended finance structures gained traction, grants, although limited, remained available through projects under the Amazon Fund and other international climate funds. In an effort to mobilize resources for decarbonization and adaptation projects, the Brazil Investment Platform (BIP) was launched, with seven projects already listed⁽²⁸⁾.

The issuance of sovereign green bonds in international markets drove climate finance in Brazil to unprecedented levels in 2023. In June 2024, a second green bond issuance, also

worth approximately R\$ 10 billion, more than doubled the projected budget for the Climate Fund in 2025, raising it to R\$ 21.2 billion⁽²⁹⁾.

Within the reimbursable credit line of the Climate Fund, managed by the Brazilian Development Bank (BNDES), about R\$ 7 billion was contracted in just seven months in 2024, setting a record for resource allocation to projects supporting energy transition and climate adaptation across multiple sectors.

During 2024, the first Climate Fund loan for adaptation was signed with the municipality of Campinas (SP). Additionally, increased loan limits for decarbonization projects benefited: sigma

Lithium (R\$ 487 million) for lithium mining in Vale do Jequitinhonha (MG), and a corn ethanol production plant in Querência (MT) (R\$ 500 million). The majority of contracts were directed towards solar photovoltaic power plant

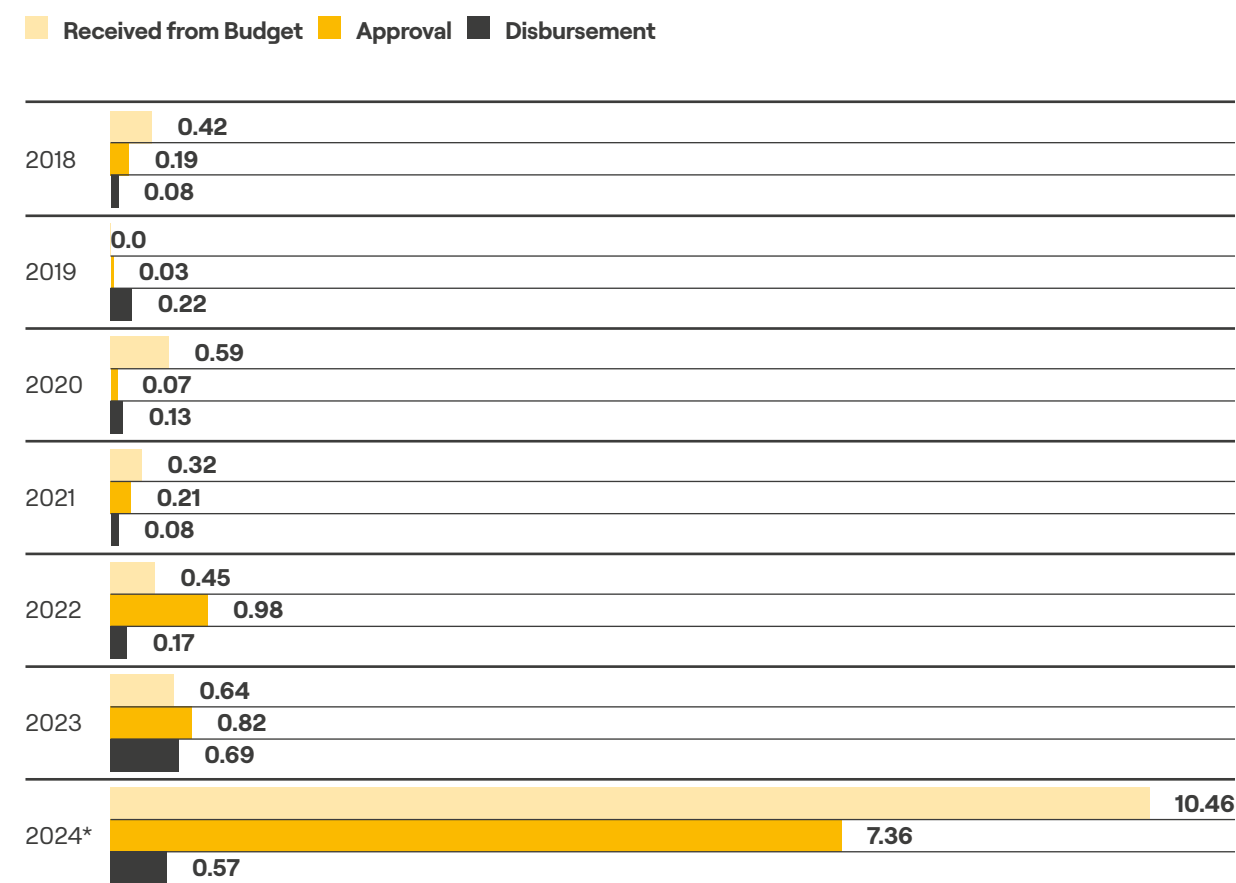
construction, according to BNDES data⁽³⁰⁾.

Civil society organizations within the Climate Fund Steering Committee have raised concerns about the carbon efficiency of these investments. So far, the BNDES – reported emission reductions from projects financed in 2024 amount to just over 3 million tons of CO₂e – a relatively modest figure given the scale of investments. Expectations are high for improvements in monitoring emissions reductions and the adoption of clear targets to align investments with Brazil's NDC and Climate Plan in the 2025 Annual Resource Allocation Plan.

THE DIVERSIFICATION OF FINANCIAL INSTRUMENTS WAS REMARKABLE. THE MAIN ONES IN USE IN CLIMATE FINANCE IN BRAZIL CONTINUE TO BE CONCESSIONAL LOANS

THE CLIMATE FUND HAS ALREADY APPROVED R\$ 7.36 BILLION IN 2024

The approved amounts are 2.5 times the total approvals by the Climate Fund from 2013 to 2023, which amounted to R\$ 3 billion in today's prices (in R\$ billions)



Of the R\$ 10 billion allocated to BNDES in April 2024, R\$ 7.36 billion was approved within just seven months, while the remaining R\$ 2.6 billion is still pending deliberation later this year

PORTFOLIO	VALUE (IN R\$ BILLIONS)
Resilient and Sustainable Urban Development	0.04
Green Industry	0.69
Transport Logistics, Public Transport, and Green Mobility	1.51
Energy Transition	5.12
TOTAL	7.36

* October 2024

Source: National Bank for Economic and Social Development (BNDES)

(28) <https://www.gov.br/fazenda/pt-br/aceso-a-informacao/acoes-e-programas/transformacao-ecologica/bip>

(29) <https://politicaporinteiro.org/2024/09/26/cresce-previsao-de-gastos-publicos-com-a-emergencia-climatica-em-2025-mas-sera-suficiente/>

(30) <https://www.bndes.gov.br/wps/portal/site/home/transparencia/centraldedownloads>

The mining sector has also benefited from increased budget allocations for 2025, with much of the funding directed toward mineral exploration. Strategic minerals essential for the energy transition have been prioritized by the government. However, there is still no defined policy, and concerns remain regarding potential risks to protected areas in the Amazon⁽³¹⁾.

The 2025 Budget Proposal includes a slight reduction in funding for deforestation control, allocating R\$ 986 million for: combating deforestation and wildfires, biodiversity conservation. However, the proposed funding for risk and disaster management appears insufficient, especially considering that expenditures in this area tripled in 2024 due to extreme climate events.

The Climate Fund and the Amazon Fund

(both offering non-repayable grants) are financing the first phase of the "Arco da Restauração" project, which aims to reforest 6 million hectares in the Amazon and capture an estimated 1.65 billion tons of carbon by 2030. So far, the program has secured R\$ 1 billion out of the R\$ 51 billion needed to meet this goal. In addition, BNDES launched a new R\$ 1 billion financing line for forest projects, reinforcing the bank's role as Brazil's main climate finance hub, as illustrated in the Climate Finance Ecosystem⁽³²⁾.

Public financing channels in Brazil hold significant potential, but alignment with the Climate Plan and Brazil's NDC remains weak⁽³³⁾. Currently, these funds lack clear criteria to identify, track, or measure climate financing in the allocation and disbursement of resources.

Key public finance instruments supporting Brazil's climate agenda include: the New Growth Acceleration Program (Novo PAC), the Crop Plan (Plano Safra), and the National Fund for Scientific and Technological Development (FNDCT). While the Climate Plan is still being developed, and sectoral strategies for Brazil's economic transition are being formulated, programs like Novo PAC, led by the Chief of Staff's Office, with a projected investment of R\$ 1.7 trillion, are already underway.

To effectively channel private financing toward the priorities of the Climate Plan and NDC, it is necessary to identify investment profiles within the climate finance ecosystem, maximizing the contributions of different stakeholders. One of the key gaps is that climate scenarios and national emissions trajectories are neither well-known nor widely used in the development of investment portfolios, initiatives, projects, programs, and a national investment platform. Stronger coordination among ecosystem stakeholders is needed to ensure decision-makers incorporate these scenarios into their action planning, making climate finance more strategic and impactful.

One of the key advancements has been the improved coordination between different types of capital, such as venture capital and private equity, to allocate resources toward climate solutions through risk financing structures, known as blended finance. This model combines public and private funds, enabling investments in high-risk, high-impact projects, which might otherwise struggle to secure financing.

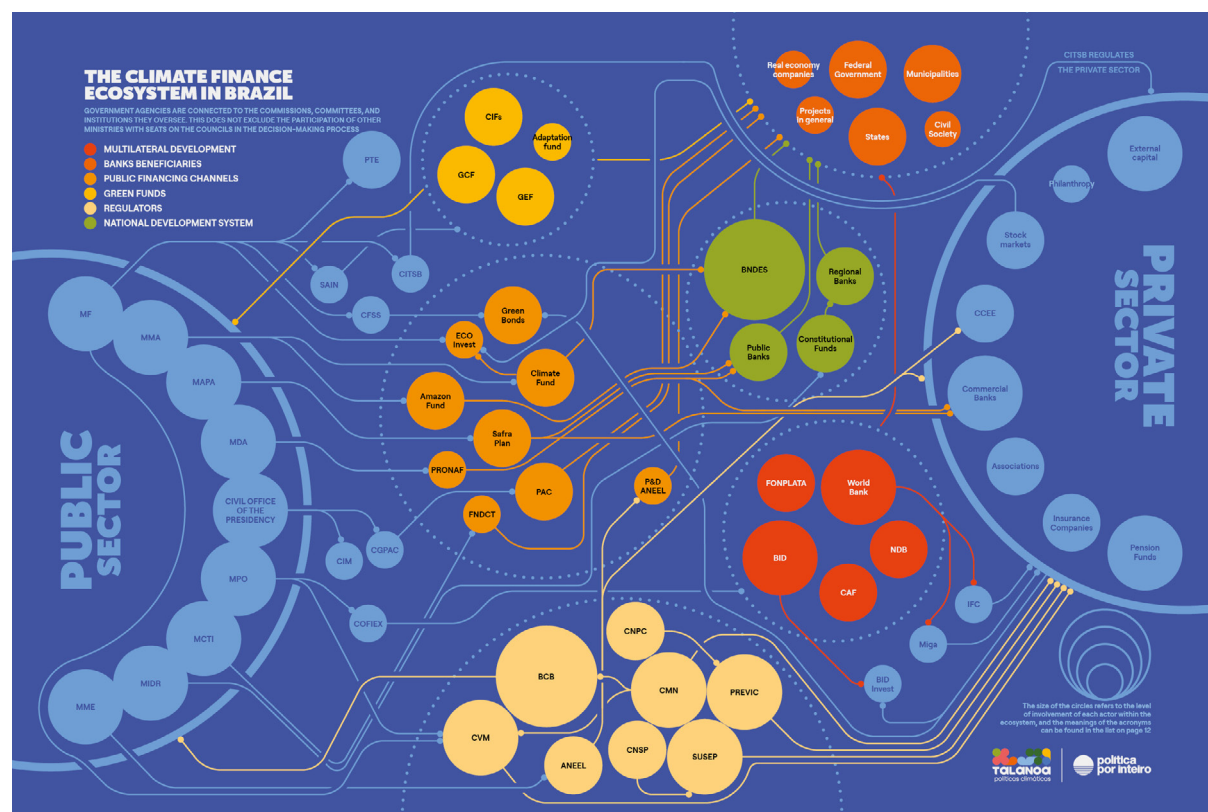
As part of the Climate Fund, the first Ecoinvest auction was held in October 2024 to stimulate credit supply for decarbonization by offering public funds at a 1% annual interest rate to private financial institutions. Finance Minister Fernando Haddad estimated that R\$ 7 billion in public funds would leverage up to R\$ 45 billion, representing a sixfold multiplication of the initial investment. A second Ecoinvest auction is planned to finance the

conversion of degraded pastures. The program follows a strict exclusion policy against investments in oil, gas, and coal⁽³⁴⁾. Ecoinvest is one of the key sustainable finance initiatives launched under the Ecological Transformation Plan (PTE)⁽³⁵⁾.

Another key initiative under the Ecological Transformation Plan (PTE) is the Sustainable Taxonomy, which remains under public consultation until March 2025. This taxonomy is a classification system for investments that contribute to climate, environmental, or social objectives. Both public and private sector actors emphasize the importance of standardization in sustainable finance. The taxonomy aims to: set exclusion criteria for non-sustainable activities, mitigate environmental and social risks, ensure investments generate positive climate impacts. However, the 2024 draft version raised concerns as it classified carbon-intensive projects as "transition activities", leading to questions about its alignment with Brazil's NDC and the Paris Agreement.

While new financing strategies are being developed as part of the Climate Plan, particularly for transitioning to a low-emission and climate-resilient economy, the funding of adaptation measures remains the biggest bottleneck. The Talanoa Institute has consistently argued that adaptation finance must be intentional, not an afterthought.

Federal climate finance governance remains complex, with multiple initiatives developing simultaneously. For example, while Ecoinvest is linked to the Climate Fund, it operates with its own governance structure. Although the Interministerial Committee on Climate Change (CIM) is responsible for coordinating policies, the Climate Plan presents a greater opportunity: to establish a backbone that aligns actions, directs financial flows strategically, and maximizes impact. While "financing the transition to a low-carbon economy" is now at the center of climate policy, achieving a true "transition of finance" toward a system aligned with the Paris Agreement still requires urgent attention.



Climate Finance Ecosystem Panel published by Política Por Inteiro

(31) <https://politicaporinteiro.org/wp-content/uploads/2024/03/Minerais-estrategicos-e-a-transicao-energetica-Politica-por-Inteiro.pdf>

(32) https://institutotalanoa.org/wp-content/uploads/2024/09/00_NOAukpact-Desktop-v20240912.pdf

(33) https://institutotalanoa.org/wp-content/uploads/2024/09/00_NOAukpact-Desktop-v20240912.pdf

(34) https://sisweb.tesouro.gov.br/apex/f?p=2501:9:::9:P9_ID_PUBLICACAO_ANEXO:23448

(35) <https://politicaporinteiro.org/wp-content/uploads/2024/03/Plano-de-Transformacao-Ecologica-do-que-se-trata-politica-por-inteiro-20240328.pdf>

12. Brazil Finally Establishes a Carbon Pricing System

After 15 years of debate and nine months of stalled legislative progress, the Bill creating the Brazilian Emissions Trading System (SBCE) was finally approved in November 2024. However, as of the publication of this report, it had not yet been sanctioned.

The approved text establishes that activities emitting over 25,000 tons of CO₂ equivalent (tCO₂e) per year must comply with new emission limits to be set by a future regulatory body. Activities emitting more than 10,000 tCO₂e per year will also be subject to monitoring and control.

Some of the most carbon-intensive sectors covered under the regulation include: oil and gas production, cement manufacturing, aluminum, iron, and steel production, air transportation, and meat processing (slaughterhouses). Despite being one of the largest sources of greenhouse gas emissions in Brazil, the agriculture sector was excluded from the regulated market.

The SBCE will allow the trading of: Brazilian Emission Allowances (Cotas Brasileiras de Emissão – CBE) and Verified Emission Reduction or Removal Certificates (CRVE). Al-

though regulations for the SBCE are already being discussed within a working group under the Interministerial Committee on Climate Change (CIM), the regulated carbon market is not expected to become fully operational for at least another four years. According to 2022 estimates from the Climate and Development Initiative, the SBCE could cover approximately 16% of Brazil's total emissions.

The creation of Brazil's regulated carbon market comes at a key moment. At COP-29, negotiations were finalized on the Paris Agreement mechanism that enables bilateral agreements for emissions reduction or removal (ITMOs – *Internationally Transferred Mitigation Outcomes*).

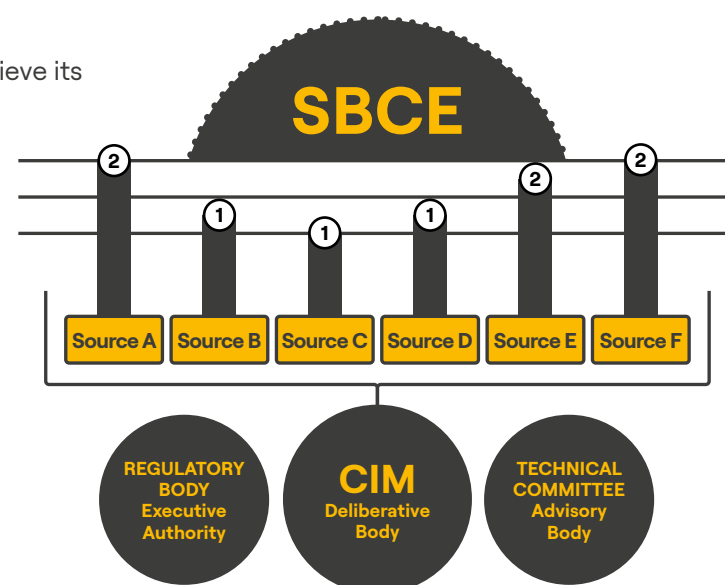
For the first time, Brazil's new NDC (submitted in November 2024) explicitly states its intention to transfer mitigation outcomes internationally under Article 6 of the Paris Agreement. The upper limit of Brazil's 2035 climate target (1.05 GtCO₂e) was set to allow for the sale or transfer of any excess emission reductions to help other countries meet their climate targets.

HOW THE SBCE WILL WORK

The system is essential for Brazil to achieve its climate targets over the next decade

- 1 Operators of emission sources above 10,000 tCO₂e must report their emissions
- 2 Operators of emission sources above 25,000 tCO₂e must reconcile their emissions and, if necessary, purchase CBEs (Brazilian Emission Allowances) or CRVEs (Verified Emission Reduction or Removal Certificates) to comply with established limits

1 CBE = 1 CRVE



13. Governance of Climate Policy

In 2024, the term "climate governance" gained traction, shifting from a technical concept to the center of political discussions, with a focus on the creation of new institutions. One of the major announcements was the President's intention to establish a legal framework for climate emergencies and create a dedicated authority to address climate change impacts. However, these proposals remain in the conceptual stage with no concrete implementation so far.

The creation of a Climate Authority for the Brazilian Emissions Trading System (SBCE) remains dependent on a robust institutional design, which will only take shape after the law is sanctioned.

Simultaneously, the Interministerial Committee on Climate Change (CIM) has advanced the revision of the National Policy on Climate Change (PNMC), originally established by Law 12.187/2009. This revision process, conducted throughout 2024, included representatives from the Brazilian Forum on Climate Change (FBMC). There is expectation that the Executive Branch may

submit a draft law to Congress, but its approval will depend on political conditions. The initial proposal submitted to CIM introduces annual reports and independent evaluations, signaling efforts to strengthen climate governance.

The creation of the Federation Council aims to align climate policies between the federal government, states, and municipalities on key issues such as climate adaptation, energy transition, and environmental conservation. Although still in early stages, the Council represents an opportunity to decentralize climate planning and involve subnational governments more actively in climate governance. The introduction of Climate Federalism, even as a recommendatory framework, is a promising step toward inclusive, multi-level governance.

The federal government has made efforts to engage society in the Climate Plan development process, including: receiving over 20,000 contributions via online platforms, holding regional hearings, announcing the resumption of environmental conferences, and opening a public consultation for the Climate Plan's adaptation strategy. However, criticisms persist, particularly regarding the lack of qualified dialogue on NDC targets and emissions scenarios considered in the Climate Plan.

In Brazil's new NDC, submitted to the UN in November 2024, the government declared: "The Climate Plan will establish an integrated vision for the national climate agenda, involving the federal government, states, the Federal District, and municipalities, together with

civil society, the private sector, and the scientific community, in response to the climate crisis." For this vision to materialize, Brazil must advance with clear and integrated targets that coordinate: States and municipalities, regional consortia and other governance arrangements, and economic

actors through regulatory frameworks.

While progress in climate discourse is promising, Brazil still lacks clarity in its new climate governance architecture. The creation of new institutional roles is a natural evolution, but requires political capital and stronger engagement of climate leadership networks. The CIM must improve its efficiency and effectiveness, but this does not eliminate the need for a participatory council that fosters frequent, high-quality, and transparent interactions with civil society and the private sector. Only through structured governance, inclusive engagement, and clear accountability will Brazil be able to turn climate ambitions into concrete actions that match the scale of the climate crisis.

FINAL CONSIDERATIONS

As Brazil moves toward COP-30 in Belém, a critical moment for global climate negotiations, the country is set to finalize the Climate Plan in 2025. This plan will detail the policies necessary to meet Brazil's international climate commitments. More than just the backbone of Brazil's climate policy, the Climate Plan will chart the path for the country's ecological transformation. The plan is still under development within the Interministerial Committee on Climate Change (CIM), which includes 23 ministries and is chaired by the Chief of Staff's Office. However, the social participation chambers, intergovernmental

coordination mechanisms, and scientific advisory bodies – established in June – still lack designated members. There are already signs of difficulties in negotiating sectoral targets for reducing greenhouse gas emissions.

For the first time in Brazil's history, the Climate Plan has a comprehensive goal: "To guide, promote, implement, and monitor coordinated actions aimed at transitioning to a net-zero greenhouse gas emissions economy by 2050 and adapting human and natural systems to climate change through short-, medium-, and long-term strategies, in line with sustainable development and climate justice."

NATIONAL POLICY ON CLIMATE CHANGE

CLIMATE PLAN 2024-2025

MITIGATION

National Mitigation Strategy

Sectoral Mitigation Plans

- Agriculture and livestock
- Land use and forests
- Cities, including urban mobility
- Energy + mining
- Industry
- Waste management
- Transportation

ADAPTATION

National Adaptation Strategy

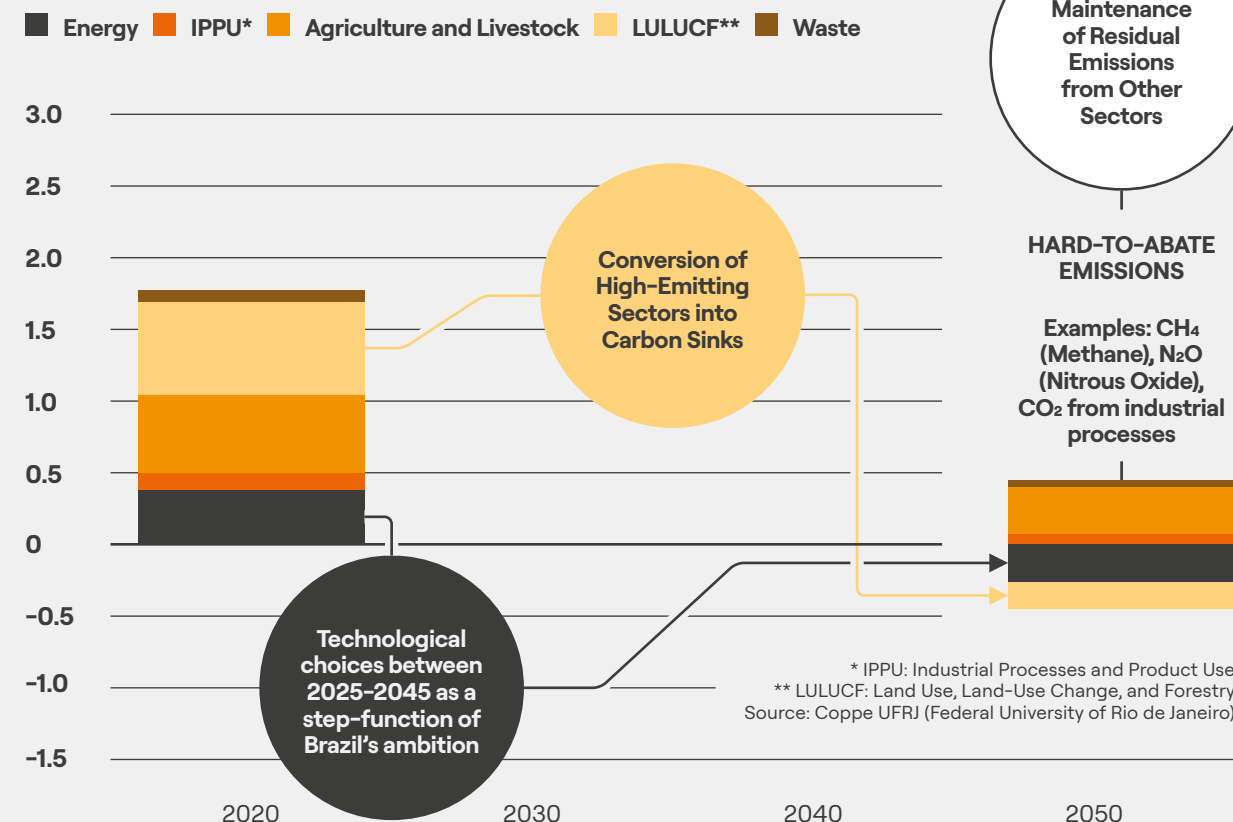
Sectoral Adaptation Plans

- Agriculture and livestock
- Biodiversity
- Cities + mobility
- Risk and disaster management
- Industry
- Energy
- Transportation
- Racial equality and anti-racism efforts
- Traditional peoples and communities
- Indigenous peoples
- Water resources
- Health
- Food and nutrition security
- Oceans and coastal zones
- Tourism
- Family farming

* Cross-cutting strategies for climate action: Just Transition (vulnerable populations, employment and income, others); Socioeconomic and environmental impacts of the transition; Means of implementation (financing, new regulations, others); Education, training, research, development and innovation; Monitoring, management, evaluation and transparency

SECTORS INCLUDED IN CLIMATE PLAN PROJECTIONS

Trajectory of Brazilian emissions in GtCO₂e based on Brazil's new NDC



The modeling framework guiding the development of the Climate Plan assumes that by 2040, the land-use change and energy sectors will have negative greenhouse gas (GHG) emissions – meaning they will capture more carbon from the atmosphere than they emit. This is because it would be impossible to completely eliminate certain emissions, even by 2050, particularly, methane from livestock, nitrous oxide from agriculture, and carbon dioxide from certain industrial processes. From 2040 onward, a significant volume of CO₂ capture will need to come from forest restoration processes, and biofuel production with carbon capture and storage (CCS).

The most challenging phase of the Climate Plan's development will occur in 2025. The difficulties experienced in setting Bra-

zil's 2035 emissions reduction target will be even greater when defining sector-specific targets to ensure net-zero emissions by 2050.

The year 2025, marking the tenth anniversary of the Paris Agreement, will be a critical moment for both Brazil and the planet. By February 10, 2025, all UNFCCC member countries must submit their new climate ambitions. These commitments will determine whether it is still possible to keep global warming within safe limits, which are already under threat. In its new NDC, Brazil urges developed countries to accelerate their net-zero targets. It also calls on major economies to lead the transition away from fossil fuels. However, Brazil itself will have to face this challenge in 2025, as the country continues to expand oil and gas production, posing a major hurdle to its energy transition.

TALANOIA INDICATOR

TARGET 2030

		How we are doing in relation to the goal	2020	TRAJECTORY	2021	2022	2023
DEFORESTATION	Expansion of protected areas		276 Mha		276 Mha	279 Mha	279 Mha
	Effectiveness of Conservation Units (UCs)		53.7%		54.3%	55.1%	55.6%
	Environmental fines against flora		3,261		3,941	4,888	7,930
	Deforestation in the Amazon (Prodes)		10,851 Mha		13,038 Mha	11,594 Mha	9,001 Mha
	Deforestation in the Cerrado (Prodes)		7,900 Mha		8,500 Mha	10,700 Mha	11,011 Mha
	Completed Rural Environmental Registries (CARs)		0.4%		0.4%	0.6%	1.3%
	Requests for adherence to the Environmental Regularization Program (PRA)		55.0%		52.0%	51.0%	49.0%
	Authorized budget for environmental enforcement		0		R\$ 78.1 millions	R\$ 136.3 millions	R\$ 116.8 millions
	Net emissions from Land Use and Forestry sector		1,000 MtCO _{2e}		1,118 MtCO _{2e}	805 MtCO _{2e}	--
EMISSIONS FROM DEFORESTATION			980 MtCO _{2e}		1,114 MtCO _{2e}	949 MtCO _{2e}	--
AGRICULTURE	% of equalized investment interest of the Safra Plan for ABC		6.7%		10.3%	18.7%	14.0%
	Grain crop area		70.9 Mha		75.9 Mha	80.1 Mha	80.6 Mha
	Average grain productivity		3.64 t/ha		3.61 t/ha	4.07 t/ha	3.97 t/ha
	Pasture area		162.5 Mha		162.7 Mha	164.3 Mha	179.4 Mha
	Degraded pasture area		102.8 Mha		100.7 Mha	112.0 Mha	114.0 Mha
	Slaughter age of cattle		37 to 42 months		37 to 42 months	37 to 42 months	36 months
	Enteric fermentation emissions		371.9 MtCO _{2e}		382.5 MtCO _{2e}	404 MtCO _{2e}	--
	Cattle herd (heads)		217 millions		224 millions	234 millions	234 millions
	Beef production (carcass equivalent)		10 mTon		9.7 mTon	10.7 mTon	10,7 mTon
EMISSIONS FROM AGRICULTURE			578.8 MtCO _{2e}		600.8 MtCO _{2e}	622.0 MtCO _{2e}	--
ENERGY	Production from coal-red power plants		10,952 GWh		16,523 GWh	6,994 GWh	7,702 GWh
	Subsidies for contracting coal-red power plants (CDE)		R\$ 697 millions		R\$ 776 millions	928 millions	738 millions
	Evolution of biodiesel addition percentage in diesel		11%		10%	10%	12%
	CBIO target		14,530,000		24,859,823	35,980,000	37,470,000
	Oil production		2.9 Mbarrel/day		2.9 Mbarrel/day	3.0 Mbarrel/day	3.4 Mbarrel/day
	Domestic gas consumption		72.1 Mm3/day		76.0 Mm3/day	91.0 Mm3/day	--
	Internal supply of wind+solar energy		2.3%		2.9%	3.5%	4.3%
	Renewable energy participation in Internal Energy Supply (OIE)		48.4%		44.7%	47.4%	49.1%
	Emissions from electricity generation		52 MtCO _{2e}		61 MtCO _{2e}	76 MtCO _{2e}	55 MtCO _{2e}
TOTAL EMISSIONS FROM ENERGY SUPPLY (EXCLUDING TRANSPORTATION)			218 MtCO _{2e}		219 MtCO _{2e}	213 MtCO _{2e}	211 MtCO _{2e}

LIST OF ACRONYMS

ABIN • Brazilian Intelligence Agency
AGU • Attorney General's Office
ANA • National Water and Basic Sanitation Agency
ANAC • National Civil Aviation Agency
ANP • National Agency of Petroleum, Natural Gas, and Biofuels
APEX • Brazilian Trade and Investment Promotion Agency
BCB • Central Bank of Brazil
BNDES • National Bank for Economic and Social Development
Casa Civil • Chief of Staff's Office
CEMADEN • National Center for Monitoring and Early Warning of Natural Disasters
CENAD • National Center for Risk and Disaster Management
CFSS • Federal Council for Supplementary Health
CIM • Interministerial Commission for Marine Resources
CMN • National Monetary Council
Consea • National Council for Food and Nutrition Security
EMBRAPA • Brazilian Agricultural Research Corporation
FUNAI • National Foundation for Indigenous Peoples
GSI • Institutional Security Office of the Presidency
IBAMA • Brazilian Institute of Environment and Renewable Natural Resources
INMET • National Institute of Meteorology
INPE • National Institute for Space Research
MAPA • Ministry of Agriculture and Livestock
MCID • Ministry of Cities
MCTI • Ministry of Science, Technology, and Innovation
MD • Ministry of Defense
MDA • Ministry of Agrarian Development and Family Farming
MDIC • Ministry of Development, Industry, Commerce, and Services
MDS • Ministry of Social Development and Assistance, Family, and the Fight Against Hunger
ME • Ministry of Economy
MEC • Ministry of Education
MF • Ministry of Finance
MGI • Ministry of Management and Innovation in Public Services
MIDR • Ministry of Integration and Regional Development
MJ • Ministry of Justice
MJSP • Ministry of Justice and Public Security
MMA • Ministry of the Environment
MMAMC • Ministry of the Environment and Climate Change
MME • Ministry of Mines and Energy
MMUL • Ministry of Women
MPA • Ministry of Fisheries and Aquaculture
MPI • Ministry of Indigenous Peoples
MPO • Ministry of Planning and Budget
MRE • Ministry of Foreign Affairs
MT • Ministry of Transport
MTE • Ministry of Labor and Employment
MTUR • Ministry of Tourism

TECHNICAL TEAM

**Liuca Yonaha, Marta Salomon, Natalie Unterstell,
Taciana Stec, Wendell Andrade**
DESIGN AND INFOGRAPHICS
Marco Vergotti

Suggested Citation: TALANOIA, 2024

Brazil's Climate Policy in Full 2024: A Comprehensive Overview of Climate Policies in Brazil.
Instituto Talanoia, 2024. 44 pages

TALANOa
políticas climáticas



**política
por inteiro**