



Ministry of the Environment Secretariat for Climate Change and Environmental Quality Department of Policies to Fight Deforestation

ENREDD+

National Strategy for Reducing Emissions from Deforestation and Forest Degradation, and the role of Conservation of Forest Carbon Stocks, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

http://redd.mma.gov.br

General Coordination for Developing Brazil's National REDD+ Strategy Secretariat of Climate Change and Environmental Quality Ministry of the Environment

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List of Abbreviations and Acronyms

ABC Plan

Sectoral Plan for Climate Change Mitigation and Adaption to Establish a Low-

Carbon Economy in Agriculture

APP Permanent Preservation Area (*for the acronym in Portuguese*)

ARPA Amazon Region Protected Areas Programme

CAR Rural Environmental Registry (*for the acronym in Portuguese*)

CNUC Conservation Units National Registry (for the acronym in Portuguese)

Interministerial Committee on Climate Change (for the acronym in Portuguese)

Conference of Parties to the United Nations Framework Convention on Climate

COP Change

DEGRAD Forest Degradation Monitoring System

DETER Real-time Deforestation Detection System

Embrapa Brazilian Agricultural Research Corporation

GEx Executive Group on Climate Change (for the acronym in Portuguese)

GHG Greenhouse Gases

GT REDD+ Interministerial Working Group on REDD+ (for the acronym in Portuguese)

Brazilian Institute of the Environment and Renewable Natural Resources (for the

acronym in Portuguese)

ICA International Consultation and Analysis

INPE National Institute for Space Research (*for the acronym in Portuguese*)

LULUCF Land use, Land use change and Forestry

MCTI Ministry of Science, Technology and Innovation (for the acronym in Portuguese)

MMA Ministry of the Environment (*for the acronym in Portuguese*)

MRV Measurement, Reporting and Verification

PNMC National Policy on Climate Change (for the acronym in Portuguese)

Action Plan for the Prevention and Control of Deforestation in the Legal Amazon

(for the acronym in Portuguese)

Action Plan for the Prevention and Control of Deforestation and Forest Fires in the

Cerrado (for the acronym in Portuguese)

PRODES Satellite Monitoring of the Brazilian Amazon Forest Project

RL Legal Reserve (for the acronym in Portuguese)

SFB Brazilian Forest Service (for the acronym in Portuguese)

SNIF National Forest Information System (for the acronym in Portuguese)

SISREDD+ Safeguards Information System (for the acronym in Portuguese)

TI Indigenous Land (for the acronym in Portuguese)

UNFCCC United Nations Framework Convention on Climate Change

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1.1. Definition and Background

REDD+ is an economic instrument developed under the United Nations Framework Convention on Climate Change (UNFCCC), to which Brazil is a Party¹. Its function is to provide financial incentives to developing countries for their results achieved in combating deforestation and forest degradation and in enhancing forest cover. Through this instrument, developing countries that produce verified results of forest-related greenhouse gas emission reductions and enhancement of forest carbon stocks become eligible to receive results-based payments from various international sources, in particular the Green Climate Fund (GCF)².

In 2007, the 13th Conference of the Parties (COP-13) of the UNFCCC established the Bali Action Plan and a specific decision to incentivize actions for reducing emissions from deforestation and forest degradation³. It was agreed that the international community should support developing countries with new and additional financial and technological resources, in order to enable their mitigation actions, including through REDD+.

The Cancun Agreements, established at COP-16 in 2010, consolidated the concept and the required elements for the recognition of REDD+ activities, as detailed in *Table 1* below.

For information on the UNFCCC, visit the official website: http://unfccc.int/2860.php.

² UNFCCC. Decision 1/CP.16, paragraphs 70 to 72 and Annex I. The COP decisions regarding REDD+ are available at: http://unfccc.int/methods/lulucf/items/6917.php. Additional information can be found on the UNFCCC REDD+ Web Platform at: http://unfccc.int/methods/redd/redd_web_platform/items/4531.php.

³ UNFCCC. Decision 2/CP13. Available at: http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3.

Activities that characterize REDD+: (i) reducing emissions from deforestation; (ii) reducing emissions from forest degradation; (iii) conservation of forest carbon stocks; (iv) sustainable management of forests; and (v) enhancement of forest carbon stocks.

Required elements for REDD+ results recognition: (i) a national strategy or action plan; (ii) a national forest reference emission level and/or forest reference level (or, as an interim measure, the corresponding subnational levels); (iii) a robust and transparent national forest monitoring system for reporting of the REDD+ activities (with subnational monitoring as an interim measure); and (iv) a system for providing information on how the REDD+ safeguards are being addressed and respected throughout the implementation of the REDD+ activities.

Incentives architecture: consists in a results-based payment scheme for results already achieved. Unlike the project centred and the nested approaches, the established approach under the UNFCCC for REDD+ implementation is national, the submission of results is under the responsibility of the Parties. At the COP-19, held in 2013, the Warsaw Framework for REDD+ was established, a set of seven decisions defining the international structure, the main rules, transparency tools and procedures for REDD+ financial, methodological and institutional aspects under the UNFCCC⁴.

Table 1 – REDD+ Features.

Finance for REDD+ may come from multiple sources, public and private. According to the Warsaw Framework for REDD+, the GCF has a key role in the distribution of resources for REDD+ in an adequate and predictable manner. There is no provision to enable developed countries to use their results-based REDD+ payments to offset their mitigation commitments under the UNFCCC.

In 2015, at COP-21 in Paris, the Parties adopted three decisions on REDD+, concluding this item of the negotiations agenda under the Convention. In 2016 REDD+ entered into its implementation phase.

1.2. Mitigation Potential of Forest Emissions in Brazil

The mitigation potential of actions undertaken by a country depends on their history and current trends regarding land use change, as well as on the associated emissions and removals.

The contribution from each Brazilian biome to the total CO_2 emissions from the LULUCF sector varies according to the carbon stocked in the biomass and soils and to the rates of deforestation and forest degradation. Emissions from deforestation and forest degradation are partly offset by CO_2 removals from forests⁵.

⁴ UNFCCC. Decisions 9 to 15/CP.19. Available at: http://unfccc.int/methods/lulucf/items/6917.php.

The Second Brazilian Inventory of Emissions classifies Protected Areas and Indigenous Lands as "Managed Forest Area" in the accounting of removals, Protected areas include those registered in the National Protected Areas System (SNUC), created by Law No. 9985/2000, except the Private Natural Heritage Reserves (RPPNs), due to lack of information on this category. See MCTI. Second Brazilian Inventory of Emissions and Anthropogenic Removals of Greenhouse Gases not Controlled by the Montreal Protocol, p.225. Available at: http://www.mct.gov.br/upd_blob/0214/214061.pdf.

According to the Brazilian Forest Service (SFB), the remaining forested areas cover approximately 54% of the national territory - which corresponds to 463 million hectares⁶. These areas present a huge potential for climate change mitigation, be it by actions to fight illegal deforestation resulting in emission reductions, by enhancing removals through the recovery of degraded areas, by sustainably managing forests or by conserving native vegetation.

According to data from the Second Brazilian Inventory of Anthropogenic Emissions by Sources and Removals by Sinks of Greenhouse Gases not Controlled by the Montreal Protocol, the LULUCF sector represented, in 1990 and in 2005, the major source of GHG emissions in Brazil, adding up to more than 60% of total emissions, making it a priority for national mitigation actions⁷.

Figure 1, below, provides estimates of emissions from all Brazilian biomes in 2000. The Amazon and the Cerrado biomes were where the largest shares of CO₂ emissions occurred.

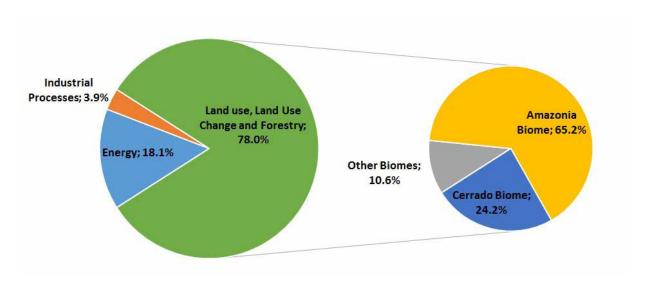


Figure 1- Relative Contribution of the LULUCF sector (by biome) to Brazil's total CO₂ emissions in 20008. **Source:** BRAZIL, MCTI, 2010, adaptation from Table 2.1.

Recent estimates published in 2014 by the Ministry of Science Technology and Innovation (MCTI) indicate that, from 1990 to 2012, Brazil's total emissions fell by 13.4%, from 1,389 billion tonnes of CO_2 e to 1,203 billion. Considering the period between 2005 and 2012, the reduction was even greater, equivalent to 41.1%. Such reduction is largely due to the reduction in deforestation rates in the Brazilian biomes, especially in the Amazon, where the deforestation rates dropped significantly since 2004.

⁶ SFB. A Summary on Brazilian Forests 2013. Available at: http://www.florestal.gov.br/publicacoes/tecnico-cientifico/brazilian-forests-at-a-glance-2013.

⁷ MCTI. Second Brazilian Inventory of Emissions and Anthropogenic Removals of Greenhouse Gases not Controlled by the Montreal Protocol, p. 151. Available at: http://www.mct.gov.br/upd blob/0214/214078.pdf>.

⁸ CO2 emissions from liming and waste management were not included in the figure because they account for less than 1% of the total emissions in 2000 (BRAZIL, 2010).

⁹ MCTI. Estimativas anuais de emissões de gases de efeito estufa no Brasil: 2ª edição (Annual emission estimates of greenhouse gases in Brazil: 2nd edition – in Portuguese only). Available at: http://www.mct.gov.br/upd_blob/0235/235580.pdf.

According to data from the National Institute for Space Research (INPE)¹⁰, the deforestation rate in the Amazon went from 27.772 km², in 2004, to 5.012 km², in 2014 - an 82% reduction (*Figure* 2 below). This is the second lowest rate since the measuring began in 1988¹¹.

Considering the potential of the LULUCF sector as a sink for GHG (*Figure 1*), Brazil can continue its trajectory of reducing total emissions by improving and intensifying REDD+ actions.

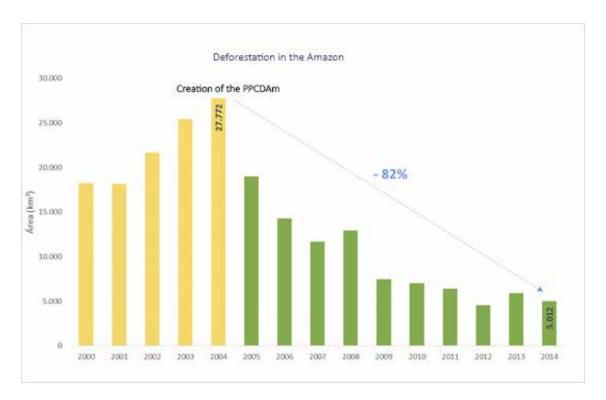


Figure 2 – Deforestation Reduction in the Legal Amazon. Source: data from INPE/PRODES. Available at: http://www.obt.inpe.br/prodes/index.php>.

1.3. National Forest Cover Monitoring System

Brazil has a vast territorial extension and a significant part of it is covered by native vegetation, which presents a great potential for climate change mitigation and adaptation. On the other hand, it represents a challenge for measuring REDD+ results, which requires transparent and consistent data on deforestation, forest degradation and enhancement of forest carbon stocks, as well as estimates of the carbon density in the assessed areas. This challenge has been addressed by resorting to a combination of remote sensing technologies, data from the carbon map by the RADAMBRASIL project and field research, which allows for estimating data on emissions and removals of CO₂ in the LULUCF sector.

The INPE, founded in 1971 and currently under the Ministry of Science Technology and Innovation governing structure, is a reference institution in the field of satellite monitoring.

¹¹ INPE. PRODES Project: Satellite Monitoring of the Brazilian Amazon Forest. Available at (Portuguese only): http://www.obt.inpe.br/ prodes/index.php>.

In recent decades, Brazil has considerably advanced its systems for monitoring its forest cover and land use, particularly those for the Amazon. Clear-cutting deforestation in the Amazon is monitored annually by INPE, through the Satellite Monitoring of the Brazilian Amazon Forest Project (PRODES), which has a time series starting in 1988¹².

INPE has also developed systems that provide additional information on the Amazon, such as the Real Time Deforestation Detection System to support the environmental enforcement bodies (DETER, producing data since 2004)¹⁵, annual forest degradation (DEGRAD, producing data since 2007)¹³ and the status of land use and land cover in the deforested areas identified by PRODES in previous years (TerraClass, for the years 2008, 2010 and 2012)¹⁴. The TerraClass project has also produced an assessment of the Cerrado biome for 2013¹⁵.

INPE has developed a satellite detection system for monitoring fire outbreaks and forest fires, as well as for estimating the risk of wildfires in Brazil (INPE-Queimadas *in Portuguese*)¹⁶¹⁸. With the available information, INPE is developing a methodology to automate the calculation of estimates of the area burned and the resulting emissions. This represents an important tool for this strategy, considering that forest fires occur in all Brazilian biomes and contribute to forest degradation.

The other biomes – Cerrado, Atlantic Forest, Caatinga and Pampas – were monitored by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA)¹⁷, with its Brazilian Biomes Satellite-based Deforestation Monitoring Project¹⁸. The project produced data for all biomes on aggregate deforestation for the period between 2002 and 2008 and on deforested area in 2009, and for the Cerrado only in 2010 and 2011.

To improve environmental monitoring at the national level, the Brazilian Biomes Environmental Monitoring Programme was established, by MMA's Ordinance No. 365/2015¹⁹. The programme will be implemented through partnerships between the MMA, MCTI through INPE, MAPA through Embrapa, and IBAMA, and other institutions, when appropriate. The funding will come from the Federal Budget, as well as from international cooperation and established funds, such as the Amazon Fund and the National Climate Change Fund.

The Brazilian Biomes Environmental Monitoring Programme is aligned with the objectives of the National Strategy for REDD+ and will deliver the enhancement and improvement of systems and monitoring protocols – particularly for the extra-Amazonian biomes – necessary for achieving the desired national scale.

More information available at (Portuguese only): < http://www.obt.inpe.br/prodes/prodes_1988_2014.htm>.

Available at (Portuguese only): http://www.obt.INPE.br/degrad/>.

For more information go to (Portuguese only): http://www.inpe.br/cra/ingles/project_research/terraclass.php>.

¹⁵ For more information go to (Portuguese only): http://www.dpi.inpe.br/tccerrado/

Available at (Portuguese only): http://www.inpe.br/queimadas/index.php>.

¹⁷ IBAMA, founded in 1989 and currently under the Ministry of Environment governing structure, has a Remote Sensing Centre working in partnership with the INPE.

Available at (Portuguese only): http://siscom.ibama.gov.br/monitora_biomas/>.

¹⁹ Available at (Portuguese only): http://pesquisa.in.gov.br/imprensa/jsp/visualiza/indexjsp?data=30/11/2015&jornal=1&pagina=114&totalArquivos=148

1.4. National Public Policies Framework

At the strategic level, the National Policy on Climate Change (PNMC, Law No. 12.187/2009)²⁰ outlines the objectives and guidelines for addressing climate change in Brazil, providing the force of law to the national voluntary commitment of reducing GHG emissions in 36.1% to 38.9% in relation to the projected emissions until 2020. With regards to specific REDD+ actions, Brazil has the commitment to achieve, in 2020, a reduction of 80% in the rate of deforestation in the Amazon biome, to be measured against the historical average between 1996 and 2005 (19,625 km²), and 40% in the Cerrado biome, to be measured against the average between 1999 and 2008 (15,700 km²). For the other biomes, it should seek to stabilise emissions at 2005 levels²¹.

Moreover, the National Policy and the National Plan on Climate Change intend to promote measures to reduce the adverse effects of climate change and the vulnerability of environmental, social and economic systems, thus contributing to adaptation. The coordination, supervision and impact monitoring of the National Policy and the National Plan are the responsibility of the Interministerial Committee on Climate Change (CIM) and its Executive Group on Climate Change (GEx), in accordance with Decree No. 6.263/2007²².

Brazil's sovereign commitment to the protection of native vegetation and the integrity of the climate system for the well-being of present and future generations was reiterated by Law No. 12.651/2012 (Forest Code)²³. The law established restrictions to the use of certain areas of private properties, which should be covered by native vegetation. The Permanent Preservation Areas (APP) and Legal Reserve (RL), as defined by the law, must be maintained by the landholders. The proportion of RL depends on the region in which the rural properties are located. In the Amazon biome, the share of RL corresponds to 80% of the property located in forest covered regions, 35% of the ones situated in savanna-like regions and 20% of those in native grass covered regions. In all regions outside of the Amazon biome, the share of RL is 20%.

A series of advances in environmental policies and law occurred in the last twenty years, namely: the Law of Environmental Crimes (Law No. 9.605/1998)²⁴; the National System of Conservation Units (Law No. 9.985/2000)²⁵; the Law on Data and Information of the National Environment System (Law no. 10.650/2003)²⁶; the Priority Areas for Conservation, Sustainable Use and Biodiversity Benefits Sharing (Decree No. 5.902/2004 and MMA's Ordinance No. 09/2007)²⁷; the Atlantic Forest Law (Law No. 11.428/2006)²⁸; Public Forests Management Law (Law No.

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Available at (Portuguese only): <a href="http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12187.htm">http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12187.htm</a>.
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 $^{21 \}qquad \quad \text{Available at (Portuguese only): } < \text{http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2010/Decreto/D7390.htm} >.$

²² Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2007/Decreto/D6263.htm>.

²³ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/lei/l12651.htm

Available at (Portuguese only): http://www.planalto.gov.br/ccivil 03/leis/l9605.htm>.

²⁵ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/leis/19985.htm

Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/Leis/2003/L10.650.htm.

²⁷ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/decreto/d5092.htm>.

²⁸ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2006/lei/l11428.htm.

11.284/2006)²⁹; the National Policy for Environmental and Territorial Management of Indigenous Lands (Decree No. 7.747/2012)³⁰; the Amazon Region Protected Areas Programme - ARPA (Decree No. 8.505/2015)³¹,among others.

At the tactical-operational level, Brazil has developed biome-wide action plans for the prevention and control of deforestation, which are, at present, the main instruments to promote integration and coordination of REDD+ initiatives. The Amazon and the Cerrado are the biomes that have action plans under implementation³². In addition to that, the nine states in the Legal Amazon region have similarly structured state plans.

The national and state plans feature analyses on land tenure issues, forest governance, the dynamics of deforestation and its main drivers, as well as on the situation of indigenous peoples and traditional communities. The plans also present a logical framework that guides the design and prioritization of actions to address the drivers identified; a detailed operational plan, assigning which body is responsible for each action, and the necessary resources for its implementation. The plans are reviewed and updated periodically.

Due to their relevance, the Action Plan for the Prevention and Control of Deforestation in the Amazon (PPCDAm) and the Action Plan for the Prevention and Control of Deforestation and Forest Fires in the Cerrado (PPCerrado) were incorporated as instruments of the PNMC. They interface with the following Sectorial Plans: Climate Change Mitigation and Adaption to Establish a Low-Carbon Economy in Agriculture (ABC Plan) and Steel Sector Emission Reductions (Charcoal Plan)³³. Together, these plans form the pillars of the PNMC for mitigation in the LULUCF sector, contributing directly to REDD+.

The PPCDAm, introduced in March 2004, has the objective of reducing the rates of deforestation in the Amazon, by implementing actions related to land use and territorial planning, fostering sustainable production activities and environmental monitoring, control and enforcement. The PPCDAm is reviewed periodically to reflect the changes in the dynamics of the drivers of deforestation in the Amazon, the lessons learned from the actions being implemented and the progress made. It is currently in its third phase (2012 to 2015), having gone through two independent evaluations³⁴.

Figure 3, below, demonstrates that the implementation of the PPCDAm has managed to reconcile deforestation reduction with maintaining the upward trend in agricultural output in the states of the northern region of Brazil, one of the main challenges to sustainable development.

Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2006/lei/l11284.htm.

³⁰ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/decreto/d7747.htm>.

³¹ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2015/Decreto/D8505.htm>.

³² See Annexes II and III

The plans are available at (Portuguese only): http://www.mma.gov.br/clima/politica-nacional-sobre-mudanca-do-clima/planos-setoriais-de-mitigacao-e-adaptacao.

The most recent evaluation is available at (Portuguese only): http://goo.gl/Z8KJ8i

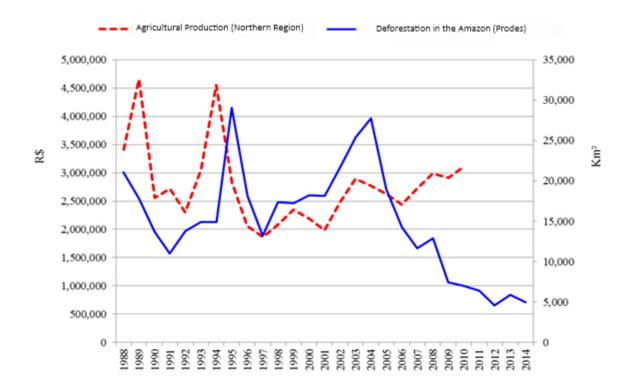


Figure 3 - Deforestation in the Amazon and Agricultural Output in the Northern Region States. **Source**: Produced by the MMA with data from INPE/PRODES and IPEA/IPEADATA. Available at: http://www.obt.inpe.br/prodes/index.php and http://www.obt.inpe.br/prodes/index.php and http://www.ipeadata.gov.br/ Theme Agriculture > Production - Total). Accessed on: 15 January 2015.

The PPCerrado, introduced in September 2010 and reviewed in 2014, has the objective of continuously reducing the rates of deforestation, as well as the occurrence of wildfires and forest fires in the Cerrado biome. The PPCerrado guidelines include integration and enhancement of monitoring, control and enforcement actions to promote environmental regularization of rural landholdings, sustainable forest management and combating forest fires; territorial planning to promote biodiversity conservation, sustainable use of natural resources and water resources protection; and incentivising environmentally sustainable economic activities, preservation of native areas and restoration of degraded forests.

The PPCDAm and the PPCerrado provide for the participation of more than 15 ministries (unnumbered Decrees of 3 July 2003³⁵ and 15 September 2010³⁶, respectively). Initially under the coordination of the Office of the Chief of Staff of the Presidency, the Decree No. 7.957/2013³⁷ assigned the Ministry of the Environment as the coordinator for the plans, serving as Chair of the respective Executive Committees. The Committees function as the governing body of the plans, monitoring progress and seeking to promote coordination and synergies among the different activities being implemented.

³⁵ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/dnn/2003/Dnn9922.htm>.

³⁶ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/Dnn/Dnn12867.htm>.

³⁷ Disponível em: https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/decreto/d7957.htm>.

Promoting the environmental regularization of private rural areas is crucial for improving land use practices in the country and a key component of Brazil's strategy to keep deforestation under control. To this end, the Forest Code established mandatory registration on the Rural Environmental Registry (CAR) for all rural landholdings (Article. 29, Law No. 12.651/2012). The rural properties that have environmental liabilities relating to the insufficiency of APP and RL shall present a Degraded or Altered Area Recovery Project, which is an instrument of the Environmental Regularization Programme, in accordance with Decrees No. 7.830/2012 and No. 8.235/2014.

After registering the approximately 5.5 million existing rural properties in the country, which is expected to occur by 2016, it will be possible to quantify the forest cover in private properties of all Brazilian biomes. This information will enable a shift from a paradigm of keeping deforestation under control to one of land use management at the property and landscape levels³⁸.

Another important Brazilian initiative to fight deforestation is the ARPA Programme³⁹ (Decree No. 8.505/2015⁴⁰), which takes on the challenge of supporting the protection of at least 60 million hectares of forests in the Amazon by supporting the creation, consolidation, maintenance and financial sustainability of conservation units. In addition to ensuring the preservation of a representative sample of the Amazon biodiversity, it also has the goal of maintaining the environmental services provided by the region, including those related to climate change mitigation and adaptation.

The results achieved in the Amazon enabled Brazil to develop a financial solution to expand the availability of resources to curb deforestation: the Amazon Fund⁴¹. Established by Decree No. 6.527/2008⁴², the Fund represents a ground-breaking experience for REDD+ results-based payments and investment. It aims to raise donations for non-reimbursable investments in actions for preventing, monitoring and combating deforestation, and promoting the conservation and sustainable use of forests in the Amazon Biome. Up to 20% of the resources may be used to support the development of systems to monitor and control deforestation in other Brazilian biomes and other tropical countries.

Landscape scale is a reference to landscape ecology, which is a field of ecology studies, it is marked by the existence of two main approaches: a geographical, which emphasizes the study of the influence of man on the landscape and land management; and other ecological, which emphasizes the importance of the spatial context of ecological processes, and the importance of these relationships in terms of ecological conservation. It can be defined as a heterogeneous mosaic composed of interactive units, such heterogeneity should apply to at least one factor according to an observer and at a certain observation scale, usually in the order of many km2 (Metzger, 2001).

³⁹ More information available at: http://programaarpa.gov.br/en/>.

⁴⁰ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2015/Decreto/D8505.htm>.

⁴¹ For more information on the Amazon Fund go to: http://www.amazonfund.gov.br/FundoAmazonia/fam/site_en

⁴² Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2008/Decreto/D6527.htm>.

Another Brazilian initiative created with the purpose of ensuring non-reimbursable resources to support projects or studies, as well as financing climate change mitigation and adaption ventures, is the National Climate Change Fund (Law No. 12.114/2009)⁴³. The Fund may allocate its resources in thirteen different thematic areas. A Managing Committee is responsible for establishing guidelines and investment priorities on a biennial basis and for approving the budget proposal and the Annual Allocation Plan.

Brazil possesses other instruments to support the implementation of REDD+ related actions, such as the National Environment Fund (created by Law No. 7.797/1989)³⁸, the National Fund for Forestry Development (created by Law No. 11.284/2006)⁴⁴, the Protected Areas Fund of the ARPA Programme (FAP/ARPA), among others.

Figure 4 summarizes the Brazilian public policies framework related to the National REDD+ Strategy.

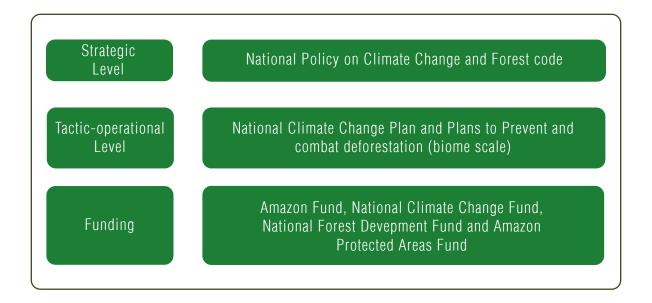


Figure 4 - National REDD+ Strategy Public Policies Framework.

For more information, see (Portuguese only): http://www.mma.gov.br/fundo-nacional-do-meio-ambiente>.

Besides the federal instruments mentioned, there are laws and programmes independently developed to promote REDD+ actions at the subnational level. The great challenge faced by the Brazilian government is promoting coordination among the various federal and state public policies, programmes and initiatives, from public and private entities, that contribute to reducing emissions in the LULUCF sector, in order to fulfil the established national commitments.

This strategy aims to enable Brazil to access the incentives for REDD+ agreed under the UNFCCC, by promoting coordination and synergies between the National Policy on Climate Change, the Forest Code, the Action Plans in the biomes and other laws, policies and regulations that aim to reverse the loss of forests, which is a priority for the Brazilian government.



2.1. Objectives

The overall objective of this strategy is to contribute to the mitigation of climate change by eliminating illegal deforestation, promoting conservation and rehabilitation of forest ecosystems and the development of a low carbon sustainable forest economy, generating economic, social and environmental benefits.

In order to achieve the overall objective, the following specific objectives are defined:

- ❖ To improve the monitoring and impact assessment of public policies for REDD+, in order to maximize their contribution to global climate change mitigation, observing the social and environmental safeguards agreed under the UNFCCC.
- To integrate the governance structures of climate change, forest and biodiversity related policies, seeking to promote consistency and synergies among them at the federal, state and municipal levels.
- To contribute to the mobilization of resources at a scale that is compatible with the voluntary national commitments to mitigate greenhouse gas emissions in the Brazilian biomes by 2020, as established by the National Policy on Climate Change.

These objectives should undergo a review process by 2020, in preparation for a new period of implementation.

To achieve these specific objectives the strategy establishes a management structure and three action lines, presented in the next topics.

2.2. Governance Structure

To implement the Strategy, a simple, robust and transparent management structure was established, to consistently deliver results and obtain results-based payments, generating local and global benefits.

Figure 5 below shows the National REDD+ Strategy's management structure.

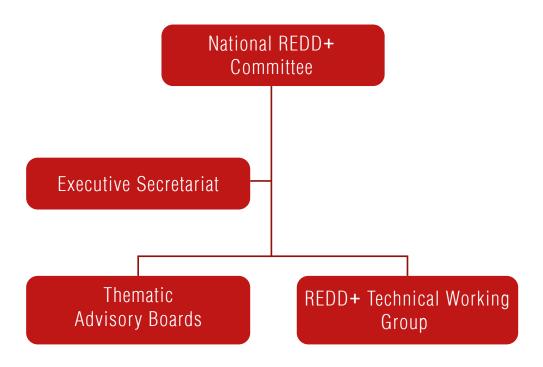


Figure 5 - National REDD+ Strategy Governance Structure.

The National REDD+ Committee, established by Decree No. 8.576/2015⁴⁵, is responsible for coordinating, overseeing and monitoring the implementation of the National REDD+ Strategy. The Committee is formed by representatives from the following ministries: i) Environment; ii) Finance; iii) Foreign Affairs; iv) Agriculture, Livestock and Food Supply; v) Agrarian Development; vi) Science, Technology and Innovation; vii) Government Secretariat; and viii) Office of the Chief of Staff of the Presidency. Two representatives from state governments, one from municipalities and two from civil society will be invited to be members of the National REDD+ Committee. The Ministry of the Environment as the chair of this Committee will serve as Brazil's REDD+ focal point to the UNFCCC.

The Ministry of the Environment will also perform the Executive Secretariat functions for the National REDD+ Committee, which is responsible for: preparing, based on inputs produced by the REDD+ Technical Working Group, the technical documents to access REDD+ results-based payments; developing and implementing the REDD+ Safeguards Information System; preparing, based on inputs from the relevant Thematic Advisory Board, the summary of information on the implementation of the REDD+ safeguards; proposing, based on the results of REDD+ actions, the annual fundraising limits and the minimum price per tonne of CO₂e for results-based payments; issuing certificates in recognition of results-based payments received; and presenting, at the international level, information to publicize the achieved REDD+ results and related payments on the Lima Information Hub.

⁴⁵ Available at (Portuguese only): http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2015/Decreto/D8576.htm

The National REDD+ Committee will operate with support from the REDD+ Technical Working Group, established by MMA's Ordinance No. 41/2014. The Group is responsible for providing technical inputs for the Brazilian submissions to the UNFCCC on forests and climate change, and it is composed of experts from universities and reputed federal institutions in the fields of forest cover and land use monitoring, as well as on measuring anthropogenic emissions and removals in the forest sector.

The National REDD+ Committee may establish *ad hoc* Thematic Advisory Boards to support its work. These Boards will be formed by stakeholders and experts from civil society, public and private entities invited by the National REDD+ Committee.

2.3. Action Lines

To reach the proposed objectives, this Strategy comprises three **action lines**, namely: (i) Coordinating climate change, biodiversity and forest related Public Policies, including the Safeguards; (ii) Measuring, Reporting and Verifying Results; (iii) Fundraising for REDD+ Results-Based Payments and Distributing Benefits.

2.3.1. Coordinating climate change, biodiversity and forest related Public Policies, including the Safeguards

Several policies, programmes and funds contribute to the achievement of Brazil's REDD+ results. The effort to coordinate these initiatives has been carried out by the National Plan on Climate Change and the biome-wide Action Plans, although further improvement is still needed with respect to at least two aspects.

The first refers to the necessity of developing a deeper and more detailed understanding about the effectiveness of such initiatives in terms of climate change mitigation, to inform decision-making on what constitutes effective resource allocation and the creation of new positive incentives instruments. The second aspect concerns the absence of systematic information collection on the safeguards, which aim to ensure social, economic and environmental benefits from REDD+ actions, enabling better risk assessment of investments.

Thereby, developing **an impact matrix** is one of the main activities of the National REDD+ Strategy. The matrix will help to analyse the effectiveness and efficacy of several public policies that contribute to the achievement of REDD+ results. This information will be crucial to support decision-making regarding the investment of new resources in different initiatives and to explore the potential for complementarity among existing policies and initiatives.

With regards to the safeguards, this Strategy adopts as reference what has been established under the UNFCCC (Annex I to Decision 1/CP.16⁴⁶ and the guidelines from Decision 12/CP.17⁴⁷), as well as the social and environmental principles and criteria for REDD+ developed by the Brazilian organised civil society. Regarding indigenous lands, in addition to the safeguards, a set of principles and premises⁴⁸ developed by the Ministry of the Environment and the National Indigenous Peoples Foundation (FUNAI *for the acronym in Portuguese*) will provide the basis for the implementation of the National REDD+ Strategy.

It's worth emphasizing that Brazil already has several information systems to monitor public policy results related to the implementation of REDD+ safeguards, such as the Conservation Units National Registry (CNUC)⁴⁹, the National Forest Information System⁵⁰, the National Rural Environmental Registry System ⁵¹ and the Biodiversity Portal⁵².

Building upon the existing systems, legal frameworks and institutions, a **REDD+ Safeguards Information System (SISREDD+)** will be created, a necessary requirement for obtaining results-based payments under the UNFCCC⁵³. This system will be an important tool to inform the decision-making process, to assess the social and environmental benefits and impacts achieved, as well as to support the management and effective implementation of REDD+ in Brazil.

The SISREDD+ will have national coverage in the future (initially, it will be implemented on the biome scale) and will be simple, reliable and cost-effective. The Ministry of the Environment will coordinate its implementation, integrating the existing information systems and promoting partnerships with state and national climate change forums. It will be reviewed periodically to respond to new challenges and priorities.

Potential users of the SISREDD+ are the participants and beneficiaries of programmes and initiatives receiving REDD+ resources, as well as stakeholders interested in the implementation of actions, such as non-governmental organizations, public bodies, companies, investors, donors and the international community. This information system will be designed and implemented in phases as an accessible and transparent tool for public use, starting in 2016.

The safeguards are the following: (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements; (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty; (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples; (d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities; (e) That actions are consistent with the conservation of natural forests and biological diversity ensuring that the actions are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits; (f) Actions to address the risks of reversals; (g) Actions to reduce displacement of emissions.

⁴⁷ Available at: http://unfccc.int/resource/docs/2011/cop17/eng/09a02.pdf

⁴⁸ See Annex I

⁴⁹ Available at (Portuguese only): http://www.mma.gov.br/areas-protegidas/cadastro-nacional-de-ucs>.

Available at (Portuguese only): http://www.florestal.gov.br/snif/entenda-o-snif/o-portal.

⁵¹ Available at (Portuguese only): http://www.car.gov.br/>.

⁵² Available at (Portuguese only): https://portaldabiodiversidade.icmbio.gov.br/portal/

The Safeguards Information System will provide inputs to Brazil's National Communication to the UNFCCC, according to Decisions 1/ CP.17 e 12/CP.19.

Furthermore, one of the requirements for REDD+ results-based payments is the preparation of an information summary on how the safeguards are being addressed and respected by Brazil. Brazil was the first developing country to submit such document to the UNFCCC in May 2015⁵⁴. It was prepared with inputs from the technical panel of national experts on REDD+ safeguards, later being subjected to a public consultation process⁵⁵.

It is worth noting that this information summary presented the status of the implementation of the Cancun safeguards in the actions to reduce emissions from deforestation in the Amazon biome, between 2006 and 2010, through the PPCDAm and the projects financed by REDD+ results-based payments through the Amazon Fund.

The document is a preliminary, non-exhaustive assessment of how the Cancun safeguards have been implemented by Brazil. The objective was to take a first step in the development of an effective dialog process with Brazilian society on the implementation of the safeguards and the SISREDD+ development process, acknowledging that its effective implementation entails a gradual and participative approach. This process requires coordinated structuring in order to enable the full participation of relevant stakeholders.

Improving this dialog process, developing the SISREDD+ and producing the next information summaries are activities that will take place under the National REDD+ Strategy governance structure.

Finally, it is important to stress that the safeguards summary and the SISREDD+ are two separate instruments. While the first serves as a national communication to the UNFCCC on how the safeguards have been addressed and respected throughout the implementation of activities that generate REDD+ results, the second compiles, over time, the necessary information to ensure the implementation of the safeguards by Brazil.

2.3.2 Measuring, Reporting and Verifying Results

The process of measuring, reporting and verifying (MRV) results aims to produce reliable data on emission reductions and removals from the forest sector to the Brazilian society and to the UNFCC, with the objective of raising REDD+ resources⁵⁶. The information basis for the MRV consists of the land and forest cover monitoring data, including information on deforestation, degradation, conservation, restoration and enhancement of forest stocks. The measurement of results will be made against the reference levels established by the country and assessed under the UNFCCC.

⁵⁴ Available at: 54 Available at: 54 Available at: 54 Available at: <a href="http://redd.unfcc.int/fi

⁵⁵ Information on the process of preparing the first information summary on the safeguards available at: http://redd.mma.gov.br/index.php/en/safeguards/summary-of-information

The provisions regarding the MRV procedures under the UNFCCC have been agreed upon in the Warsaw Framework for REDD+, particularly in decisions 13 and 14/CP.19.

The definition of reference levels for REDD+ results-based payments was set by Decision 12/CP.17 and by the Warsaw Framework for REDD+. Developing countries may voluntarily submit their reference levels to the UNFCCC annually.

The Working Group of Technical Experts on REDD+ supported the development of Brazil's first submission of reference levels for REDD+ results-based payments, submitted to the UNFCCC in June 2014. Initially, Brazil opted to submit its forest reference emission level covering solely the activity of deforestation in the Amazon biome, based on existing information and historical data⁵⁷ (*Figure 6*).

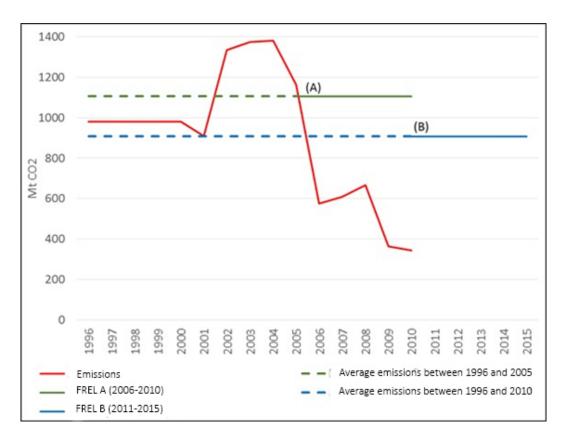


Figure 6 – Brazil's Reference Level for REDD+ Results Achieved in the Amazon Biome.

After the assessment of the reference levels by the specialists appointed by the UNFCCC Secretariat, the country can produce its REDD+ technical annex, one of the annexes to the Biennial Update Report (BUR) of the National Communication to the UNFCCC⁵⁸. The technical annex presents the country's REDD+ results to the UNFCCC and includes information about forest cover monitoring systems, a demonstration that the methodologies used to produce the results are consistent with those used to establish the assessed reference levels, and other information necessary for reconstructing the results.

For more information on reference levels and Brazil's forest reference emission level for REDD+ results-based payments: http://www.mma.gov.br/redd/images/Publicacoes/FREL_Complete_October31_FINAL.pdf and http://unfccc.int/land_use_and_climate_change/redd/items/8414.php

The submission of the BUR was agreed upon during the COP-17. The first reports should be submitted by the end of 2014. It is one of the developing countries' communication obligations, according to articles 4.1 and 12 of the UNFCCC. For more details: http://unfccc.int/national_reports/non-annex_i_natcom/items/2716.php>.

In accordance with what has been agreed in decision 2/CP.17, the REDD+ technical annex, as part of the BUR, will be submitted to the International Consultation and Analysis (ICA) process. This international verification process is conducted by experts appointed by the UNFCCC. The objective is to assess the conformity of the data submitted by the country with the established methodological guidelines, but also enable information exchange in order to promote overall continuous improvement of the content submitted to UNFCCC (Decision 14/CP.19).

Brazil was the first country to submit its REDD+ technical annex to the UNFCCC in December 2014, with the results achieved in the Amazon biome between 2006 and 2010⁵⁹. This document successfully went through the technical assessment process in 2015⁶⁰.

Brazil intends to gradually include other biomes and REDD+ activities in future submissions to the UNFCCC, allowing for the recognition of new results and expanding the ability to raise results-based payments. The implementation of the Brazilian Biomes Environmental Monitoring Programme and of Brazil's first National Forest Inventory will contribute decisively, by producing the necessary data for preparing these submissions. These initiatives will also provide important information to improve, at the national level, policies to combat deforestation and forest degradation and to foster forest recovery.

2.3.3. Fundraising for REDD+ Results-Based Payments and Distributing Benefits

After the conclusion of a cycle of technical submissions, the UNFCCC Secretariat shall publish on the Lima REDD+ Information Hub^{61} (paragraph 11, decision 9/CP.19): information on REDD+ results expressed in tonnes of CO_2e per year and the respective payments, the assessed reference levels, the summary of information on how the safeguards have been implemented, a link to the National REDD+ Strategy and information about the national forest cover monitoring system. This Information Hub is an online tool designed to enhance transparency on the results and their respective payments.

This enables developing countries to seek bilateral partnerships or multilateral financial bodies willing to make REDD+ results-based payments. The GCF will play a key role channelling adequate and predictable results-based finance to support developing countries' efforts to implement their REDD+ actions.

The Lima REDD+ Information Hub, updated by the UNFCCC Secretariat, will provide the necessary information for fundraising. In December 2015, Brazil was the first country to have its results of reducing emissions from deforestation in the Amazon between 2006 and 2010 posted on this platform.

The REDD+ technical annex to Brazil's BUR is available at: http://unfccc.int/resource/docs/natc/brbur1.pdf>.

The report from the UNFCCC is available at: http://unfccc.int/resource/docs/2015/tatr/eng/bra.pdf

More information available at: http://redd.unfccc.int/info-hub.html.

In Brazil, fundraising based on the national results will be carried out in accordance with guidelines, rules and criteria defined by the National REDD+ Committee based on recommendations from an ad hoc Thematic Advisory Board. The Brazilian entities interested in fundraising for REDD+ results-based payments will have to meet the eligibility criteria set. The criteria will be reviewed periodically, considering compliance with current legislation and the performance of different entities in raising and investing these resources. The distribution of benefits should be equitable, including all the actors that can contribute to REDD+ results and engaging indigenous peoples, smallholders and traditional communities. The Amazon Fund was declared eligible by the Decree that established the National REDD+ Committee (No. 8.576/2015), enabling it to continue its operations normally.

The entities that are able to meet the eligibility criteria will be accredited. The chairmanship of the National REDD+ Committee will send the UNFCCC a list of accredited entities, so that it can be posted on the Information Hub. After that, the accredited entities will be able to start their fundraising efforts, in accordance with the established guidelines, rules and criteria.

After an accredited entity and a donor sign a results-based payment contract, the National REDD+ Committee should be notified, in order to issue a nominal, non-transferable certificate with the relevant data on the payment agreed. These certificates and the respective payments do not generate rights or credits of any nature and may not be used, directly or indirectly, for the fulfilment of mitigation commitments from other Parties to the UNFCCC (offsetting).

The chairmanship of the National REDD+ Committee, serving as Brazil's REDD+ focal point, will communicate to the UNFCCC on the results based-payments received so that this information can also be posted on the Lima REDD+ Information Hub. Brazil will have a mirror of the Information Hub on its *REDD+ Brasil* website, which will bring more detailed and up-to-date information about the achieved REDD+ results and the policies in place.

Figure 7 summarizes the implementation arrangements of Brazil's National REDD+ Strategy.

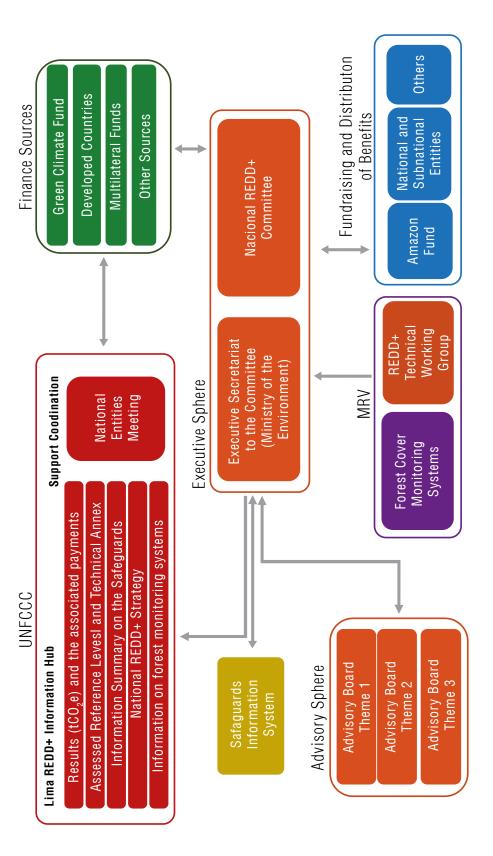


Figure 7 - National REDD+ Strategy Implementation Arrangements.

Note: The colors in Figure 7 represent the different roles played by the institutions and bodies involved in the implementation of REDD + in Brazil. The ENREDD's governance structure is in orange (as shown in Figure 5); some examples of entities that may carry out fundraising are in blue; matters related to compliance with the requirements set by the UNFCCC are in red; potential funding sources are in green; monitoring systems are in purple; and the Safeguards Information System is in yellow, this tool will provide transparency about the implementation of REDD+ policies and actions in Brazil.



Figure 8 Summarizes how the development process of Brazil's National REDD+ Strategy evolved, between 2010 and 2015.

Figure 9 brings the implementation timetable for the 2015-2020 period. This timetable will be reviewed periodically, in consultation with the parties involved in the implementation of planned activities.



Figure 8 - National REDD+ Strategy development process (2010-2015).

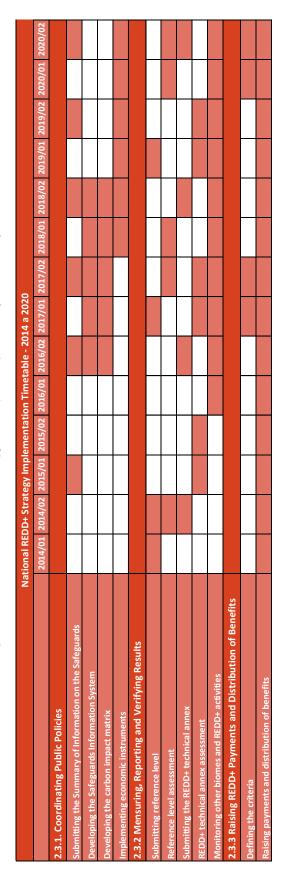


Figure 9 – National REDD+ Strategy implementation timetable (2015 - 2020)



Amazon Fund: a Brazilian Government Fund, established by Decree No. 6.527/2008, to raise donations to be invested in non-repayable projects that contribute to monitoring, combating and reverting deforestation, and to promoting conservation and sustainable use of forests in the Amazon biome.

Atmospheric carbon removal: carbon build-up in the components of an ecosystem, be it in the living biomass, dead biomass or soil. The process is also known as carbon sequestration or carbon fixation.

Biomass: total quantity of non-fossil organic matter found in a particular ecosystem, does not include the organic matter in the soil.

Certificate: document issued in recognition of REDD+ results-based payments made by a donor. The certificate is nominal, non-transferable and does not generate rights or credits of any nature.

 CO_2e : carbon dioxide equivalent is a unit used to compare the climate change impact of different GHG, such as methane or nitrous oxide, to that of CO_2 for measurement purposes. It is the result of the multiplication of the quantity of a given GHG emitted by its global warming potential (GWP), global temperature potential (GTP) or other unit set as a standard.

Conference of the Parties (COP): meeting of the countries that are Parties to the United Nations Framework Convention on Climate Change.

Conversion: land use change in which natural ecosystems are replaced by production systems, with little or no similarity to the natural ecosystem.

Degradation: the process in which anthropogenic activity results in changes to the structure and/ or composition of forests, leading to continuous reduction of their ability to provide goods and ecosystem services.

Emissions Displacement: refers to a situation in which the actions that result in emission reductions in a given area result in the displacement of drivers of deforestation to other areas, jeopardizing the net efficiency of REDD+ actions.

Emissions: the discharge of GHG and/or its precursors into the atmosphere in a specific area and period.

Enhancement of forest stocks: forest restoration, recovery, regeneration or afforestation, resulting in increased carbon storage potential.

Forest carbon stock: the amount of carbon stored in a forest, that includes the carbon found in the soil, the litter, the vegetation and deadwood.

Forest reference emission levels or forest reference levels: these documents define the reference period and scale against which REDD+ results are measured, in a historical or projected perspective. It allows for the assessment of the actual impacts of policies and measures for reducing emissions and for conservation and enhancement of stocks.

Forest: an area larger than 0,5ha covered by trees taller than 5m and with over 10% of canopy cover, or with trees capable of reaching these parameters *in situ*, land areas that are predominantly under agricultural or urban use do not qualify as forests (FAO, 2010).

Green Climate Fund (GCF): Fund established by Decision 1/CP.16 as an operational body of the UNFCCC financial mechanism under its Article 11. The GCF will support projects, programmes, public policies and other activities in developing countries.

Greenhouse Gases (GHG): gases found in the atmosphere, of natural or anthropogenic origin, capable of absorbing and re-emitting infrared radiation. According to the Kyoto Protocol, the following gases are considered GHG: carbon dioxide (CO_2) , methane (CH_4) , nitrous oxide (N_2O) , sulphur hexafluoride (SF_6) and two groups of gases, hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

International Consultation and Analysis (ICA): the international consultation and analysis process for assessing mitigation actions from developing countries under the UNFCCC.

Mitigation: human interventions to reduce the sources of GHG emissions or to enhance carbon sinks, contributing to alleviate global climate change.

Permanent Preservation Areas: protected areas, covered or not by native vegetation, with the environmental functions of preserving water resources, landscape, geological stability and biodiversity, as well as facilitating the gene flow of fauna and flora, protecting the soil and ensuring the well-being of human populations. Definition given by the Forest Code, Law No. 12.651/2012.

PRODES: deforestation monitoring system covering the Legal Amazon region, based on remote sensing images and digital image processing techniques. The monitoring is carried out by the National Institute for Space Research (INPE), which applies its own methodology (PRODES methodology). The PRODES assessment is produced annually.

Recovery: the restoration of certain forest processes in extremely degraded ecosystems. Falling short of a return to the original conditions, due to the advanced stage of degradation initially observed. In certain cases, recovery can be an initial stage of forest restoration.

REDD+: reducing emissions of greenhouse gases from deforestation and forest degradation; and the role of conservation of forest carbon stocks, sustainable forest management and enhancement of forest carbon stocks in developing countries.

Rehabilitation: similar to restoration (see below), with actions to restore the structure and operations of elements in degraded ecosystems, falling short of a return to original conditions.

Restoration: applying processes and practices to assist the recovery of a degraded, damaged or destroyed ecosystem, restoring it, as close as possible, to the original conditions. When applied to forest ecosystems, it is called forest restoration.

Sustainable forest management: managing forest resources for obtaining economic, social and environmental benefits, respecting the supporting mechanisms of the managed ecosystem and considering, cumulatively or alternatively, the use of multiple timber species, multiple non-wood products and by-products, as well as the use of other forest goods and services.

Sustainable use: using the renewable natural resources found in an environment in a way that ensures their long-term sustainability preserving the ecological processes, maintaining the biodiversity and other ecological attributes, in a socially fair and economically viable manner.

TerraClass: project developed by the National Institute for Space Research (INPE) and by the Brazilian Agricultural Research Corporation (Embrapa) to identify the current land use of previously deforested areas in the Amazon and the Cerrado.

The United Nations Framework Convention on Climate Change or the Climate Convention (UNFCCC): established in 1992, with the goal of achieving the stabilisation of GHG concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference in the climate system, which should be done in a timeframe that allows ecosystems to adapt naturally to climate change, ensures that food security is not threatened and enables economic development to continue in a sustainable way. It is the Convention under which REDD+ has been negotiated and is being implemented.



Annex I

Set of principles and premises for the implementation of REDD+ in Indigenous Lands

PRINCIPLES AND PREMISES AGREED UPON BY THE NATIONAL INDIGENOUS PEOPLES FOUNDATION (FUNAI) AND THE MINISTRY OF THE ENVIRONMENT (MMA) AS INPUTS FOR DEVELOPING THE NATIONAL REDD+ STRATEGY

In recent years — with the official recognition of extensive protected areas inhabited by traditional communities and the limitations related to the commercialization of indigenous products produced with managed extractive resources — indigenous peoples' interest in discussing sustainable alternatives which allow them to ensure the well-being of their communities has been growing, that includes alternatives concerning ecosystem services incentives.

Considering that, the definition of an indigenous component for the national REDD+ strategy will be a relevant contribution with practical consequences in the context of the implementation of the National Policy for Environmental and Territorial Management of Indigenous Lands (PNGATI) and of the efforts to meet the emission reductions targets set by the National Policy on Climate Change (PNMC), while, at the same time, addressing indigenous peoples demands.

This process, however, remains detached from the communities and requires appropriate means to promote engagement and develop specific instruments. The principles or premises presented here were jointly defined by the FUNAI and the MMA, during a seminar that took place in March 2012. They aim to address the interests of indigenous peoples and the objectives of the PNMC and to provide guidance for the design and implementation of concrete REDD+ application in indigenous territories.

Principles/Premises:

- Recognizes the historical contribution of indigenous peoples for maintaining forest stocks, by means of traditional resource management as well as territorial management strategies;
- Recognizes that the deforestation historically accumulated in indigenous lands is of little significance and is associated to particular practices of indigenous territorial occupation, not implying that these traditional ways of life can be considered "drivers of deforestation and degradation";
- Affirms that the main focus of REDD+ initiatives in indigenous lands shall be to avoid the replication in indigenous lands of the historical deforestation patterns observed in areas with other uses and occupation;

- Agrees, therefore, that the priority role of indigenous peoples in combating climate change is the long term conservation of the carbon stocks found in their forest areas;
- Considers that this role will be fulfilled through ex-ante actions in anticipation and prevention of the drivers of deforestation in indigenous lands, so that future deforestation is prevented;
- Considers that the cost of long-term maintenance of forest carbon stocks in indigenous lands will be proportional to the actual investment in the development and consolidation of indigenous territorial management plans;
- Considers that the national REDD+ strategy, with its indigenous component, should have the role of identifying and promoting synergies between the implementation of the PNMC and the PNGATI;
- Restates that the definition of an indigenous component in the national REDD+ strategy will have as a principle the respect for national and international legislation in force, including free, prior and informed consultation;
- ❖ Considers that ecosystem services/REDD+ initiatives should be carried out preferably by the agents that act as the actual stewards of the ecosystem services generating environments, in this case the indigenous peoples, with support and recognition from the State, strengthening the principle of self-determination laid down by Convention No. 169 of the International Labour Organization (ILO);
- Acknowledges that designing ecosystem services initiatives/REDD+ initiatives requires concrete consideration of scientific and technical aspects, such as ensuring the permanence of the results achieved and avoiding displacements (environmental integrity);
- Restates that the indigenous component in the national REDD+ strategy will be implemented in coordination with other relevant national, state and local policies and programmes;
- Acknowledges that the role of the MMA and the FUNAl is that of stimulating and supporting the design and implementation processes of ecosystem services/REDD+ initiatives by indigenous peoples, with financial resources, technology and endogenous skills development;
- Restates that ecosystem services/REDD+ initiatives shall respect, recognize and value indigenous peoples' sociocultural systems;
- Affirms that a monitoring and transparency system dedicated to the implementation of indigenous ecosystem services/REDD+ initiatives will be established under the national REDD+ strategy, in full coordination with existing information systems, such as MMA's REDD+ Brazil website;
- Affirms the need to develop the procedures and means to record complaints concerning violations or disregard to the socio-environmental safeguards, including indigenous

- rights, as well as a clear conflict resolution mechanism under the monitoring and transparency system of the national REDD+ strategy, supported by the relevant bodies (the Federal Attorney General's Office and the Federal Persecutor General's Office, when appropriate);
- Affirms that support lines for indigenous initiatives will be created and expanded, as well as for the design and implementation of environmental and territorial management plans in indigenous lands, under the PNMC's financial mechanism;
- Affirms that the FUNAI and the MMA will seek to facilitate the access of indigenous peoples organizations and representations to ecosystem services/REDD+ related funds;
- Recognizes that there are outstanding demands regarding the recognition of indigenous rights over areas, in addition to areas under judicial consideration, which deserve special treatment in the context of the national REDD+ strategy, so as to avoid the development of perverse incentives for wrongful occupation of such areas with a view to obtain carbon offsetting or ecosystem services benefits;
- ❖ Affirms that the FUNAI, through PNGATI, should provide guidance to indigenous peoples on funding opportunities for territorial management activities, especially those related to incentives policies for environmental conservation, ecosystem services valuation and payments, sustainable development and additional resources generated by REDD+ activities.
- Affirms that the preferred approach for measuring the REDD+ emission reductions results is one that produces results on a regional scale (per biome) based on highly accurate time series.

Annex II

Action Plan for the Prevention and Control Deforestation in the Legal Amazon (PPCDAm)

The Amazon is the world's largest tropical forest, 60% o the biome lies in Brazilian territory. It was the first Brazilian biome to have a plan designed to combat deforestation. For administrative purposes, the Brazilian Government created the geographic region known as "Legal Amazon" to develop its actions, incorporating parts of the Cerrado and Pantanal biomes. Today, the PPCDAm represents the main framework of actions for preserving the Amazon forest.

Introduced in 2004, the PPCDAm articulates the Federal Government's coordinated actions aiming at reducing the deforestation rates in the Amazon. The plan was developed under the Permanent Interministerial Working Group (GPTI *for acronym in Portuguese*), created by the unnumbered Decree of 3 July 2003, which also serves as its highest coordinating body. The GPTI, currently composed of 17 Ministries, was under the coordination of the Office of the Chief of Staff of the Presidency until 2013, when such responsibility was transferred to the Ministry of the Environment, by Decree No. 7,957.

With the aim of promoting the continuous reduction in the rates of deforestation and forest degradation in the Legal Amazon, the PPCDAm has been structured on three thematic axis to direct government action, namely:

- 1. Land Tenure and Territorial Planning;
- 2. Environmental Monitoring and Control; and
- 3. Fostering Sustainable Production Activities.

In its third phase (2012-2015), the following strategic objectives have been set (Figure 1):

Land Tenure and Territorial Planning

- 1.1. Promote planned landholding allocation in public lands
- 1.2. Implement territorial planning instruments taking into account forest conservation
- 1.3. Carry out landholding management taking into account the particularities of the different landholding categories

Environmental Monitoring and Control

- 2.1. Streamline the licensing for forest management plans and forest concessions
- 2.2. Increase the efficiency of deforestation control and enforcement operations
- 2.3. Enhance State presence in the Legal Amazon
- 2.4. Reduce administrative and criminal impunity related to ilegal deforestation
- 2.5. Promote environmental accountability in the main productive chains associated with illegal deforestation

Fostering Sustainable Productive Activities

- 3.1. Strengthen the productive chains that constitute alternatives to deforestation
- 3.2. Promoting good practices in agriculture, including alternatives to the use of fire
- 3.3. Increase the production of wood and promote market growth for sustainable forest management
- 3.4. Promote environmental compliance and foster sustainable production in agrarian reform sttlements and smallholdings
- 3.5. Generate sustainable development related science, technology and innovation in the Amazon

Figure 1 - PPCDAm thematic axis.

The institutions responsible for carrying out the actions planned on the three axis of the PPCDAm utilize their own budgetary resources or funds from other sources to do so. The total budgetary prevision of the PPCDAm for the 2012-2015 period is approximately R\$ 856 million, taking into account all the actions from the different institutions that contribute to the plan. It should be noted that the Fostering Sustainable Production Activities axis offers additional lines of credit to producers.

The 3rd phase of the PPCDAm is based on a governance model divided into three spheres: Executive, Advisory and Transparency, as shown on the figure below. This governance structure enables continuous monitoring of its implementation, allowing course correction, providing inputs for MMA's decision-making, as the coordinating body, as well as resolution for problems and conflicts that may arise between all the institutions involved.

GOVERNANCE PPCDAM 2012-2015

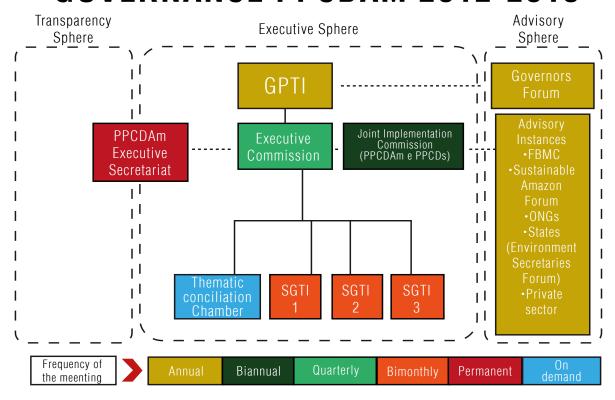


Figure 2 - PPCDAm Governance (2012-2015).

For the reasons presented and to promote swift and efficient implementation and well coordinated actions, an executive body with new dialogue instances has been created (Figure 2). The Joint Implementation Comission responds to the state's demand for coordination between the PPCDAM Executive Commission and the Executive Commissions of the State Plans for the Prevention and Control of Deforestation. In addition to that, the role of the Ministry of the Environment as Executive Secretariat of the PPCDAm has been reinforced. The other innovation is the reinstating of the subgroups on each thematic axis, enabling a permanent monitoring and problem-solving instance to facilitate the achievement of the targets set.

The advisory and transparency spheres were already being implemented during the 2nd phase of the PPCDAm, 2009 to 2011. However, during the third phase, the goal is to strengthen this communication channel with social actors and States, who, in actuality, are the key players for implementing many actions, even though such actions may be part of federal strategy.

Accordingly, in addition to the federal government actions, the states' governments active participation is a major influence, with their State Plans for the Prevention and Control of Deforestation - PPCDs, which was defined by the Amazon Fund as a condition to grant the States representation in the Fund's Advisory Committee. The dialog with the States has been

strengthened since PPCDAm 2nd phase, when a coordinated strategy was adopted to promote a more robust integration between PPCDAm's and PPCDs' actions.

Important results were achieved throughout the implementation of the 1st and 2nd phases of the PPCDAm. On the Land Tenure and Territorial Planning axis, 25 million hectares of federal conservation units (UCs) were created, mostly located around the deforestation expansion front, as well as the approval of 10 million hectares of indigenous lands (TIs). In addition to that, approximately 25 million hectares of State and a number of municipal UCs were created, demonstrating the commitment by all levels of government with the expansion of protected areas in the Amazon. Besides the protected areas expansion, the Legal Amazon MacroZEE was developed and 25.618 rural landholdings were georeferenced under the Amazon Legal Land Programme.

On the Environmental Monitoring and Control axis, hundreds of integrated enforcement operations based on technical and territorial criteria occurred. In addition to that, environmental monitoring systems, based on satellite imagery analysis, were considerably improved, such as the PRODES system, the Real Time Deforestation Detection in Legal Amazon System (DETER), which provides intelligence for the integrated enforcement operations, and, more recently, the Selective Logging Detection System (DETEX), Mapping Forest Degradation in the Brazilian Legal Amazon System (DEGRAD) and TerraClass.

On the Fostering Sustainable Production Activities axis, it is worth highlighting the initiatives to stimulate the Amazon based forest economy, with 13.852 families benefiting from natural resources management projects in Agrarian Reform settlements and the Green Grant Programme, directed to the population groups living in UCs of the Sustainable Use category, among others. The Green Grant Programme is part of the Brazil Without Extreme Poverty Plan. Other highlights were the granting of approximately 225,000 hectares of public concessions for Sustainable Forest Management and the establishment of the BR 163 Sustainable Forest District (around the BR 163 Federal Highway).

Corroborating the decline in deforestation rates since the beginning of the PPCDAm, studies pointed out that the policies designed to fight deforestation contributed significantly to the drop between 2005 and 2009. Estimates suggest that such policies helped prevet 62,000 km² of deforestation, which represents 32% to 52% of the total that would have been deforested in the period, if these policies were not in place.

Annex III

Action Plan for the Prevention and Control of Deforestation and Forest Fires in the Cerrado (PPCerrado)

With the considerable decline of deforestation in the Amazon, achieved mainly through the implementation of the PPCDAm, the Cerrado biome assumes an essential role for keeping the emissions associated with land use change at a low level and preventing leakage of drivers from the Amazon biome.

Deforestation in the Cerrado biome occurs intensively due to its characteristics, namely suitability to agriculture and livestock farming, with the demand for charcoal playing a part too, mainly by the steel industry. It is in the Cerrado, among all Brazilian biomes, that the challenge of reconciling production and environmental protection manifests itself more clearly, with the legal protection regime (20% of legal reserve) and high demand for land occupation, particularly for agriculture and livestock farming. The Cerrado biome is known as the cradle of waters (for hosting sources of several important river basins that flow across Brazil), but also as the largest granary in the country; it is the most biodiverse savanna in the world, but also the largest soybean exporter. Dealing with these apparent contradictions is the challenge of the Action Plan for the Prevention and Control of Deforestation and Forest Fires in the Cerrado - PPCerrado.

At the 15th Conference of the Parties (COP-15) to the UNFCCC, held in Copenhagen, Denmark, in 2009, Brazil made a voluntary commitment to reduce its GHG emissions. The effort would include reducing deforestation in the Amazon and the Cerrado biomes. The voluntary commitment gained law status with the enactment of the National Policy on Climate Change - PNMC (Law No. 12,287/2009), which received further regulation by Decree No. 7,390/2010. The target set by the PNMC for the Cerrado biome is a 40% reduction in the annual rate of deforestation in relation to the average rate recorded between 1999 and 2008.

Since the commitment was made in 2009, the Cerrado biome received a specific strategy for the prevention and control of deforestation, with the establishment of the PPCerrado and its Executive Commission by the Federal Government through the unnumbered Decree of 15 September 2010. The Decree expanded the scope of the Permanent Interministerial Working Group (GPTI) beyond the actions for reducing deforestation in the Amazon biome. Currently, the Executive Commission is composed of representatives from the following bodies:

- I- Ministry of the Environment, the coordinator;
- II- Ministry of Agriculture, Livestock and Food Supply;
- III- Ministry of Agrarian Development;
- IV- Institutional Security Office of the Presidency;
- V- Ministry of Science, Technology and Innovation;

- VI- Ministry of Development, Industry and Foreign Trade;
- VII- Ministry of Planning, Budget and Management;
- VIII-Ministry of Finance;
- IX- Ministry of Mines and Energy;
- X- Ministry of Justice; and
- XI- Ministry of National Integration.

The PPCerrado's overall objective is promoting continuous reduction in the rates of deforestation as well as in the incidence of undesirable forest fires in the Cerrado biome, to be achieved with coordinated actions and partnerships between the Federal, State and Municipal bodies, as well as organised civil society, the business sector and universities.

To achieve deforestation reduction, not limiting itself to environmental enforcement, the PPCerrado is structured on three thematic axis and their respective macro level objectives. See *Figure 1*:

Macro Objective 1: Provide incentives to the planted forests sector, to reduce the pressure on the native vegetation Macro Objective 2: Foster forest management of native species Macro Objective 3: Promote the adoption of sustainable systems and practices in agriculture and livestock farming in degraded, abandoned and underused areas, to avoid the clearing of new **Fostering** areas for production Sustainable Macro Objective 4: Develop and enhance technical assistance Productive and rural extension capacity in sustainable production models Activities Macro Objective 5: Promote the consumption and strengthen the sociobiodiversity products market Macro Objective 6: Register landholdings in the Rural Environmental Registry and promote the rehabilitation of legal reserve and permanent protection areas Macro Objective 7: Improve the land cover monitoring of the Cerrado biome Macro Objective 8: Strengthen the integrated investigation and environmental enforcement of deforestation in special interest Environmnetal areas, such as conservation units, indigenous lands and agrarian Monitoring reform settlements Macro Objective 9: Build forest management capacity within the and Control National Environmental System Macro Objective 10: Implement integrated and adaptive fire management, considering its ecological, social and economic importance Macro Objective 11: Create and consolidate protected areas (conservation units and indigenous lands) for the conservation of **Protected Areas** and Territorial sociobiodiversity and sustainble use of natural resouces **Planning** Macro Objective 12: Promote territorial planning in the Cerrado

Figure 1 - PPCerrado thematic axis.

The PPCerrado governance model is divided into two spheres; executive and advisory. (Figure 2).

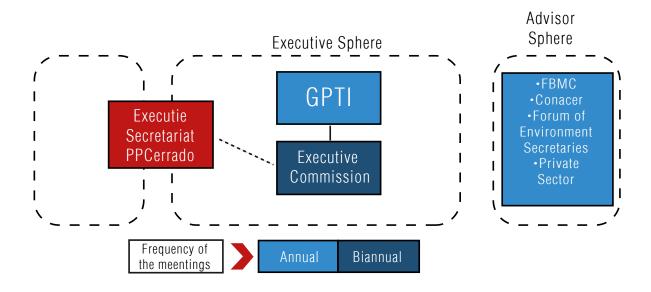


Figure 2 - PPCerrado Governance.

The Executive Sphere is responsible for the decision-making, guidance, implementation and monitoring of actions. Its highest authority is the Permanent Interministerial Working Group (GPTI), established by the unnumbered Decree of 3 July 2003, composed of 17 Ministries and coordinated by the Ministry of the Environment - MMA, in accordance with the Decree No. 7,957 of 12 March 2013. This group meets once a year.

The Executive Commission, also coordinated by the MMA, meets every 6 months and is responsible for implementing the actions defined by the GPTI. The Ministry of the Environment serves, permanently, as its Executive Secretariat, being responsible for analysing and monitoring the actions, as well as for coordinating the dialog among the Commission and the thematic axes subgroups.

A good flow of information and communication with state governments and civil society are key elements for the success of the PPCerrado. In order to have that, the Forum of Environment Secretaries will have an open channel to communicate with the Executive Commission and the civil society will have the opportunity to participate through the Brazilian Forum on Climate Change and the National Commission of the Sustainable Cerrado Programme - CONACER.



