



# REGULATING FOREST COMPENSATION FOR LEGAL DEFORESTATION IN BRAZIL



CLIMATE  
POLICY  
INITIATIVE



EXECUTIVE SUMMARY  
AUGUST 2021

The Brazilian Forest Code (Law no. 12,651/2012) establishes the regulatory framework for environmental conservation on private lands by imposing limitations on how the land is used. The law relies on two types of protection instruments for conservation on private lands: the Permanent Preservation Areas (*Áreas de Preservação Permanente* - APP) and the Legal Forest Reserve (*Reserva Legal*). The Forest Code requires that the vegetation in Permanent Preservation Areas be left intact and on Legal Forest Reserves only sustainable forest management is allowed.

The Forest Code sets parameters on how private landowners may or may not use their land, and while it mandates a certain level of conservation, it also allows landowners to legally deforest under certain conditions. Brazil has approximately 100 million hectares of native vegetation in private areas that are not legally protected within Permanent Protection Areas, Legal Reserves, or Conservation Units.<sup>1</sup> While deforestation in these unprotected areas is permitted by law, it causes biodiversity loss and an increase in greenhouse gas emissions, thus aggravating climate change. The Forest Code sets conditions for legal deforestation of these unprotected areas, which requires prior authorization from the appropriate environmental authorities and reforestation as compensation for the vegetation loss. The Forest Code's provision for forest compensation has become an important instrument for biodiversity conservation and shows the potential to reforest areas that have previously been cleared, underutilized, or degraded.<sup>2</sup>

If forest compensation programs are well-planned, they can incentivize the restoration of priority areas for conservation, contributing to better landscape design and connectivity across protected areas.<sup>3</sup> These programs help offset emissions from deforestation, thereby contributing to Brazil's fulfillment of its international commitments to mitigate greenhouse gas emissions.

Even though forest compensation is regulated at both the federal and state levels, the states have not yet updated their respective laws since the changes introduced by the 2012 Forest Code. Statewide reviews of legislation could not only bring state laws in full compliance with the Forest Code, but also provide states with an opportunity to introduce innovations and establish rules to make forest compensation an even more effective instrument.

Researchers from Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro (CPI/PUC-Rio) conducted a survey and an analysis of all federal and state legislation on forest

<sup>1</sup> Freitas et al. "Who owns the Brazilian carbon?". *Global Change Biology* 24 (2018). Sparovek, G. et al. "Effects of Governance on Availability of Land for Agriculture and Conservation in Brazil". *Environmental Science & Technology* 49, no. 17 (2015): 10285-10293. Soares-Filho, B. et al. "Cracking Brazil's Forest Code". *Science* 344 (2014).

<sup>2</sup> Brancalion, P. H. S. et al. "Instrumentos legais podem contribuir para a restauração de florestas tropicais biodiversas". *Revista Árvore* 34, no. 3 (2010): 455-470.

<sup>3</sup> Protected areas are all areas legally protected under Brazilian law. They comprise Conservation Units, APPs, and Legal Forest Reserves.

compensation currently in effect to better understand the evolution of forest compensation from a legislative perspective at the federal level, identify the federal regulations currently in effect, and provide an overview of state legislation, showing how states regulate the different elements of forest compensation.

The full report is available in Portuguese only.<sup>4</sup> This summary outlines the main messages and recommendations for states to implement more robust and effective forest compensation policies.

## KEY MESSAGES AND RECOMMENDATIONS

1. **Only nine states have laws on forest compensation that align completely with the current federal rules.** Outdated, complex, and weak laws make it difficult for environmental agencies and liable parties alike to carry out mandatory forest compensation.

**Recommendation:** States with inconsistent and outdated rules must update their forest compensation laws as contradictory rules make enforcement difficult.

2. **Forest compensation is still regulated from the perspective of sustainable consumption of raw materials rather than from a conservation perspective that values natural resources and ecosystem services.** In most states, forest compensation primarily aims to ensure the supply of forest products to the various consumer segments. However, the removal of native vegetation causes more than the single loss of forestry raw materials; it generates biodiversity losses and significant negative impacts on environmental services.

**Recommendation:** States must implement a forest compensation policy that ensures effective environmental compensation for areas where native vegetation has been removed. To ensure the supply of raw materials from the forests to the consumer market, the federal and state governments must enact specific policies on that target issues such as forest concessions and planted forests.

3. **Current requirements for forest compensation do not guarantee effective environmental compensation for cleared native vegetation.** Federal and most state legislation often allows for reforestation with exotic plant species or permits compensation in areas smaller than the areas where native vegetation was first removed. Furthermore, criteria for determining where reforestation will happen do not prioritize landscape connectivity, which would increase biodiversity preservation and ecosystem services. Only a handful of states have methodologies that incorporate innovative criteria and use priority maps for restoration.

**Recommendation:** The federal and state governments must establish compensation parameters based on the principles of “no net loss of habitat” and ecological equivalence. The idea is to generate gains elsewhere, through restoration efforts, so the net result of the forest losses and gains is neutral. Additionally, the use of priority conservation maps and the adoption of reforestation requirements that consider the type of vegetation and other ecological characteristics would maximize the effectiveness of compensation efforts.

4. **Cash payments for forest restoration directed to a specific fund or account *without linking the funds to specific forest restoration projects* constitutes misuse.** Cash payments, which are widely used by states in Brazil, facilitate compliance with mandatory forest compensation requirements and allow forest

<sup>4</sup> Lopes, Cristina L., Julia Nardi, and Joana Chiavari. *Reposição Florestal: Panorama da Regulamentação nos Estados*. Rio de Janeiro: Climate Policy Initiative, 2021.

restoration projects to grow in scale. However, in some states these payments are not tied to forest restoration projects and can be used for different purposes.

**Recommendation:** States must ensure forest restoration payments are directed toward forest compensation purposes by establishing clear rules and procedures for the funds' use, governance, and oversight.

5. **Land area for forest compensation is complex.** In many cases, forest compensation needs to occur in environmental recovery areas that belong to third parties. In most states, there are no strategies in place for forming partnerships with owners of degraded areas.

**Recommendation:** States must create and encourage innovative mechanisms to ensure compliance with forest compensation. These innovations should include establishing databases containing forest restoration areas and conservation banking programs.

6. **Few states have created oversight and transparency tools to enable the monitoring of reforestation activities.** Continuous monitoring of forest compensation activities is essential to tracking the progress of this instrument and create accountability.

**Recommendation:** States must create and implement information systems that track and share data on authorizations for the removal of native vegetation and compliance with forest restoration requirements. To facilitate oversight, this information must include geospatial data linking cleared vegetation areas to restored areas.

## AUTHORS

### CRISTINA LEME LOPES

Senior Legal Analyst, Climate Law and Governance, CPI/PUC-Rio  
[cristina.leme@cpiglobal.org](mailto:cristina.leme@cpiglobal.org)

### JULIA NARDI

Legal Analyst, Climate Law and Governance, CPI/PUC-Rio

### JOANA CHIAVARI

Associate Director, Climate Law and Governance, CPI/PUC-Rio

*The authors would like to thank Luiza Antonaccio for the valuable research assistance. We would also like to thank Mariana Campos for the editing and revision of the text and Meyrele Nascimento and Nina Oswald Vieira for formatting and graphic design.*

### Suggested citation

Lopes, Cristina L., Julia Nardi, and Joana Chiavari. *Regulating Forest Compensation for Legal Deforestation in Brazil*. Rio de Janeiro: Climate Policy Initiative, 2021.

AUGUST 2021

Climate Policy Initiative (CPI) is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. In Brazil, CPI partners with the Pontifical Catholic University of Rio de Janeiro (PUC-Rio). This work is funded by Norway's International Climate and Forest Initiative (NICFI). This publication does not necessarily represent the view of our funders and partners.

**Contact CPI/PUC-Rio:** [contato.brasil@cpiglobal.org](mailto:contato.brasil@cpiglobal.org)  
[www.climatepolicyinitiative.org](http://www.climatepolicyinitiative.org)



Content licensed under Creative Commons Attribution 4.0 International. The texts in this publication may be reproduced in whole or in part provided that the source and the respective authors are cited.