

Brazil has a pivotal opportunity in this moment to be a global leader in sustainable agricultural production. Public policy plays a key role in defining modern agriculture and should promote the expansion of production without deforestation. Without clear guidelines, however, some policies may be misused and cause misalignment with Brazil's environmental and climate goals.

This study reveals that subsidized rural credit has been widely channeled by various financial institutions to finance producers who allowed the destruction of native vegetation. **Researchers**

The results show that 36% of the subsidized rural credit that was allocated between 2020-2024 was distributed to properties that have registered deforestation since 2009.⁵ R\$ 205.6 billion in finance for agriculture was released to these properties, out of a total of R\$ 567.7 billion for which it is possible to identify the property (i.e. which have an associated CAR).⁶

Figure 1 shows the distribution of finance contracted over the years, identifying the percentage associated with deforested areas and classifying it according to the most recent period of deforestation. Of the total volume of credit contracted in the period, 36% is associated with deforestation that has occurred since 2009. Most of the financed properties that have deforested have recent deforestation records: 17% of the credit volume is associated with properties with deforestation from 2020-2023, 15% from 2013-2019.

From 2020-2024, the volume of subsidized resources earmarked for properties with deforestation increased from R\$30.6 billion to R\$47.6 billion, representing a growth of 56%. This percentage exceeds the increase in total subsidized rural credit resources linked to a CAR, which grew from R\$87.2 billion to R\$132.1 billion, an increase of 51%. Part of this increase indicates an expansion of resources allocated to rural credit policy during the period; it also reflects a rise in the number of operations that have started reporting the CAR.⁷

The volume of credit associated with deforestation is considerably higher when the analysis considers the total areas of the properties (CARs) compared to the areas of the financed projects (plots). Using only the deforestation in the 2020-2023 period, the proportion of the volume of credit associated with properties with deforestation (17%) is higher than the volume of credit associated with these plots with deforestation alerts in the same period (7%).^{8,9} The difference stems from two factors: 1) The area of the property (CAR) tends to be larger than the area of the enterprise; 2) As the financed plots are self-declared, producers have an incentive to declare areas that are already open to avoid problems with monitoring. With the CAR, this practice is more difficult, although it is still possible to avoid existing restrictions by changing the polygon boundary or creating a new CAR registration to access the rural credit policy if the property has any social, environmental or climatic restrictions.

28% of properties that deforested after 2009 took out subsidized rural credit between 2020-2024. This figure would be even higher if it were possible to observe the CAR for all subsidized rural credit operations (some operations do not have an associated CAR) and if we included

Box 1. The Social, Environmental and Climate Responsibility Policies of Financial Institutions

This box highlights how the main financial institutions that channel rural credit address deforestation in their PRSACs or related documents:

1. **Banco do Brasil (BB)** has adopted a target of zero illegal deforestation in its finances and mentions checking for plots overlapping with deforestation alerts and signs of illegality from the MapBiomas Alerta platform; it pledges to interrupt the contracting process if an overlap is observed.¹²
2. The **Banco do Nordeste (BNB)** mentions the adoption of mechanisms to prevent illegal deforestation in its finance, including the verification of authorizations for legal deforestation.¹³
3. The **Banco da Amazônia (BASA)** states that it is forbidden to finance “agricultural areas with deforestation practices” and “agriculture activities in illegally deforested areas of the property.”¹⁴
4. **Sicredi**

Most financial institutions point out that only illegal deforestation is considered a justification for blocking operations, even if all deforestation is monitored. In this study, we analyzed both legal and illegal deforestation, which allows us to broadly assess the degree of exposure of financial institutions. Identifying signs of irregularity should be done on the basis of documentary evidence, which is beyond the scope of this analysis. However, as rural credit relies on government subsidies, tax exemptions and targeting, it is essential that public resources are aligned with the interests of Brazilian society, such as the commitment to zero deforestation and achieving environmental and climate goals.

The Rural Credit Monitor, launched by MapBiomias in partnership with CPI/PUC-RIO, can facilitate the monitoring actions of financial institutions, allowing them to identify enterprises associated with deforestation. This information can be used as an indicator of compliance with their policies. In addition to the areas financed in the project, the MapBiomias Alert platform also allows deforestation to be verified in the area of the property registered in each CAR based on the property code.

In order to take stock of the financial institutions' agribusiness portfolios, the following analysis presents the association between subsidized rural credit and deforestation by financial agent. For the sake of simplicity, our analysis focuses on the credit operations released during the last PRODES year (August 2023-July 2024) and examines the deforestation that has occurred since 2009 on the properties associated with these operations.

Public banks and credit cooperatives finance 91% of the volume of subsidized rural credit associated with deforestation. Figure 3a shows the absolute amounts per financial institution. From August 2023-July 2024, R\$ 132.1 billion in subsidized rural credit was released for operations with associated CAR, of which R\$ 47.6 billion (36%) went to properties with deforestation registered after 2009. Of this amount, R\$ 43.4 billion was granted by public banks and cooperatives.²³

Banco da Amazônia and Banco do Nordeste are the financial institutions holding the greatest
and the greatest

Figure 3. Volume of Subsidized Credit for Rural Properties by Year of Deforestation and Financial Institution, 2024

N : The figure takes into account credit operations registered between August 2023-July 2024 to make them

Public Policy Implications

It is essential for the allocation of public resources in rural credit to be transparent and for public agencies to ensure that those resources are prioritized for rural producers who adopt sustainable practices and do not deforest their properties. Rural credit policy can make a significant contribution to meeting the country's environmental and climate goals, which include conserving forests and reducing carbon emissions from land use.

The analysis in this paper is based on the regulations in force. CMN Resolution 5081/2023 defined the social, environmental and climatic impediments to accessing rural credit, using the rural property as a whole as the unit of analysis and not just the area of the enterprise associated with the credit.²⁴ This applies, for example, to the detection of embargoes for illegal deforestation and the analysis of overlaps with protected public lands. This prevents the borrower, when disclosing the land for financing, from registering geodesic coordinates that leave out exactly the area that could cause a blockage in credit. In addition, there are credit operations that do not need to report the area of the project, but still need to report the CAR where the funds will be invested. It is essential to consider the entire property and not just the area financed.

Advances in rural credit policy in recent years have increased both the restrictions on producers who do not comply with certain socio-environmental safeguards and the incentives for producers who adopt good agriculture practices. However, there is still a long way to go. Although the list of social, environmental and climatic considerations has been expanded, the only enforceable regulation in rural credit regarding deforestation is the implementation of environmental embargoes, which capture just a small part of deforestation.^{25, 26} Even this has met with resistance.²⁷

Fortunately, the technology to enhance the detection and monitoring of deforestation has

A crucial first step is to ensure that rural credit is not allowed to be used to finance properties that have been subjected to illegal deforestation. Once vegetation suppression has been detected, an ASV or equivalent document should be required to prove that the deforestation is legal. If the documentation is not presented or there are any irregularities, the credit can be blocked or paid out early.²⁸ This documentation process should be required both before the funds are released, ensuring that the properties to be financed do not include areas that have already been illegally deforested (regardless of whether there is an embargo in place), and after the funds have been released. This record will help dissociate rural credit from promoting illegal deforestation, as well as to assess the extent to which financial institutions are effectively complying with what they declare in their PRSACs.

We need to go further. Brazil has set a climate target of zero deforestation by 2030. As shown in this study, there is strong evidence of a substantial link between deforestation and subsidized credit in Brazil. In order to meet the country's zero deforestation target, it is necessary to completely dissociate subsidized rural credit distribution from any form of deforestation. Economic incentives should promote sustainable development and encourage practices in line with environmental conservation. Subsidies, tax benefits and other expenditures of public resources need to be directed towards producers who contribute to tackling the environmental and climate crisis. Public policy and financial agents each play a crucial role in advancing Brazil's environmental goals.

²⁸ The National Bank for Economic and Social Development (BNDES) has already been applying this logic since February 2023 in its automatic indirect operations, using the MapBiomass Alert Platform for this purpose. More information at: BNDES. *Circular SUP/ADIG n° 57/2022*. 2022. bit.ly/4g96lhM. Access date: November 26, 2024.

Figure 4. Volume of Subsidized Rural Credit with Associated CAR, 2020-2024

N : The figure displays credit operations registered between August of the previous year and July of the reference year (on the horizontal axis) to make it compatible with the PRODES year, which is the source for deforestation data.

: CPI/PUC-RIO based on data from SICOR/BCB (2020-2024) and SICAR (2023), 2024

The deforestation polygons analyzed represent the annual increases detected by PRODES/INPE in all Brazilian biomes. Polygons of vegetation suppression with an area greater than 1 hectare were included. In the Amazon, deforestation records in areas of non-forest native vegetation were also taken into account. The dates of the PRODES/INPE deforestation maps vary by biome. In the Amazon, we have observed increases in deforestation for each year since 2008. To make it

There are operations registered in SICOR/BCB with more than one property linked, but it