Financing Sustainable Agriculture in the Cerrado Biome

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About Climate Policy Initiative

Climate Policy Initiative (CPI) is an organization with international expertise in f inance and policy analysis. CPI has seven offices around the world. In Brazil, CPI has a partnership with the Pontifical Catholic University of Rio de Janeiro (PUC-RIO). CPI/PUC-RIO works to improve the effectiveness of public policies and sustainable finance in Brazil through evidence-based analysis and strategic partnerships with members of the government, civil society, the private sector and financial institutions.

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List of Acronyms and Abbreviations

ABC+ Brazilian Agricultural Policy for Climate Adaptation and Low-Carbon Emissions

ABC Plan Agricultural Sector Plan for Climate Change Mitigation and Adaptation for the Consolidation of a Low-Carbon Economy

ABC Program National Program for Low-Carbon Emissions in Agriculture

APP Permanent Preservation Area

BIP Brazil Climate and Ecological Transformation Investment Platform

BST Brazilian Sustainable Taxonomy

CBI Climate Bonds Initiative

CCFI Crop-Cattle-Forest Integration

CGF Consumer Goods Forum

CPI/PUC-RIO Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro

CPR-F Financial Rural Product Note

CRA Agribusiness Receivables Certificate

DCF Deforestation and Conversion Free

DFI Development Financial Institution

EMBRAPA Brazilian Agricultural Research Corporation

FCF Constitutional Financing Fund

FCDO United Kingdom's Foreign, Commonwealth & Development Office

FCO Constitutional Financing Fund of the Midwest Region

FEBRABAN Brazilian Federation of Banks

FIDC Receivables Investment Fund

FMO Financierings-Maatschappij voor Ontwikkelingslanden, the Dutch Entrepreneurial Development bank

FNE Constitutional Financing Fund of the Northeast Region

FNO Constitutional Financing Fund of the North Region

FPC Forest Positive Coalition

FS Fueling Sustainability

FUNCAFÉ Fund for the Defense of the Coffee Industry

GAN Growth Next-Generation Agriculture

GHG Greenhouse Gas

IBGE Brazilian Institute of Geography and Statistics

ICMA International Capital Market Association

IDB Inter-American Development Bank

IFACC Financial Innovation for the Amazon, Cerrado, and Chaco

INVESTAGRO Agricultural Investment Programs

IPI Tax on Industrialized Products

IR Income Tax

LCA Agribusiness Credit Note

MAPA Ministry of Agriculture and Livestock

MATOPIBA Maranhão, Tocantins, Piauí, and Bahia

MCR Rural Credit Manual

MFF Mobilizing Finance for Forests

MSMEs Micro-, Small, and Medium-sized Enterprises

NDC Nationally Determined Contribution

PPCerrado Action Plan for Prevention and Control of Deforestation in the Cerrado biome

PROAGRO Agricultural Activity Guarantee Program

PRONAMP National Program to Support Medium-Sized Rural Producers

PRONAF National Program for Strengthening Family Farming

RCF Responsible Commodities Facility

RENOVAGRO Program for Financing Sustainable Agricultural Production Systems

RL Legal Reserve

SCF Soft Commodities Forum

SICOR Rural Credit and PROAGRO Operations System

SPSABC Sustainable Production Systems, Practices, Products, and Processes of the ABC+ Plan

TNC The Nature Conservancy

WHO World Health Organization

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Executive Summary

Brazil's Cerrado biome sits at the center of the country's agricultural expansion and climate ambitions. As the second-largest biome in the country, the Cerrado supplies a substantial share of national agricultural outputs, while also retaining significant biodiversity and ecosystem value. With nearly half of the Cerrado's native vegetation still intact, there is an opportunity to expand production on already cleared land and a risk of continued conversion of native ecosystems. How agricultural finance is structured and deployed in the biome, particularly via public rural credit and emerging blended-finance instruments, will be decisive in shaping land-use outcomes.

Within the Cerrado, the MATOPIBA region—encompassing parts of Maranhão, Tocantins, Piauí, and Bahia states—has been at the center of recent agricultural expansion and deforestation pressures. Although MATOPIBA covers approximately 28% of the Cerrado, it accounted for more than 55% of deforestation in the biome between 2013 and 2022 and for nearly 80% of Brazil's soybean expansion since 2000. This combination of ecological vulnerability and rapid agricultural growth positions the region as a critical testing ground for sustainable finance policies.

Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro (CPI/PUC-RIO) finds that while substantial resources are already flowing to the Cerrado and MATOPIBA, the current financial architecture falls short of sufficiently aligning agricultural finance with the country's sustainability and zero-deforestation goals.

Incentive-based mechanisms are pivotal in accelerating the sustainable transformation of land use in the Cerrado and MATOPIBA while supporting Brazil's broader effort to reconcile agricultural production with environmental conservation. CPI/PUC-RIO's assessment in this report identifies key obstacles and gaps that must be addressed to expand the reach and effectiveness of finance, mobilize additional capital, and align financial flows with deforestation reduction and long-term sustainability objectives.

Key Findings

Finance Flows are Significant but Uneven

Between the 2020/21 and 2023/24 agricultural years, subsidized rural credit directed to the Cerrado totaled R$ 198 billion,[1] around 36% of total rural credit in Brazil. MATOPIBA alone accounted for R$ 48.59 billion (US$ 9.1 billion) over the same period. Notably, during that same period while the region generated about 14.5% of agricultural production value, it received more than 32% of financing volume—highlighting the intensity of capital flows supporting agricultural expansion.

Funding structures differ markedly across the Cerrado. Credit in the broader biome is relatively diversified across funding sources, including Brazilian Agricultural Plan (*Plano Safra*) programs, non-targeted credit lines, and Constitutional Financing Funds (*Fundos Constitucionais de Financiamento* – FCFs). In contrast, MATOPIBA relies disproportionately on FCF credit, which finances roughly 62% of subsidized credit in the region, increasing exposure to the design, governance, and targeting of these instruments.

Sustainable Credit Remains Limited and Highly Concentrated

Despite the scale of public financing, sustainable subsidized credit represented just 5.7% of total rural credit in the Cerrado from the agricultural years 2020/21 to 2023/24. Credit provision—particularly for sustainability-linked programs—is highly concentrated among certain institutions, producers, and geographies.

Sustainable, subsidized credit tends to favor larger producers. The Program for Financing Sustainable Agricultural Production Systems (*Programa de Financiamento a Sistemas de Produção Agropecuária Sustentáveis* – RENOVAGRO), is Brazil's main sustainable credit line, together with the National Program for Low-Carbon Emissions in Agriculture (*Programa para Redução da Emissão de Gases de Efeito Estufa na Agricultura* – ABC Program), its predecessor. These credit lines are associated with larger average loan sizes—around R$ 1.2 million per installment—while other programs average between R$ 700,000 to R$ 750,000. This pattern suggests that access may be skewed toward large-scale farms. The disparity is even more pronounced in MATOPIBA, where FCF contracts average roughly R$ 1.2 million, compared to approximately R$ 524,000 in the rest of the Cerrado. Geographic distribution is similarly uneven. Sustainable credit lines have the weakest municipal coverage, with only 40% of municipalities in the Cerrado recording contracts under the RENOVAGRO/ABC Program, and 53% showing no contracted sustainable credit lines under the National Program for Strengthening Family Farming (*Programa Nacional de Fortalecimento da Agricultura* Familiar – PRONAF) during the period analyzed. These gaps point to persistent access constraints that may reflect supply-side limitations, insufficient outreach, or low program attractiveness relative to conventional credit. Regardless of the cause, limited territorial coverage undermines the ability of these instruments to drive widespread adoption of sustainable practices.

1 This value is equivalent to US$ 36.7 billion, according to December 2024 exchange rates.

Market Concentration Limits Competition and Access

The rural credit market in MATOPIBA is dominated by a small number of financial institutions—primarily Banco do Brasil and banks administering FCFs, including Banco do Nordeste and Banco da Amazônia. This concentration reduces competition, restricts producers' financing options, and may constrain product innovation.

Concentration is even greater in the sustainable credit segment: 45.5% of municipalities have only one institution offering either RENOVAGRO/ABC Program or sustainable PRONAF contracts—or none at all—effectively excluding many producers from sustainable finance. These structural features suggest that the current credit architecture may be insufficient to support a broad-based transition toward sustainable agricultural production.

Innovative Financial Instruments Show Promise but Face Scale Constraints

The analysis also examined nine blended mechanisms that, while not exclusively focused on the Cerrado, have generated tangible impacts in the region. These instruments predominantly deploy debt-based products and vary widely in scale, ranging from approximately R$ 20 million to more than R$ 1.5 billion.

Although these mechanisms demonstrate the potential of financial innovation to complement public credit, their overall scale remains limited relative to the financing required to shift production systems across the biome. Structural barriers—including pipeline constraints, risk perceptions, and market fragmentation—continue to restrict their ability to deploy capital at the speed and breadth necessary for transformational change.

Implications And Way Forward

Taken together, the findings suggest that sustainable public finance in the Cerrado—and particularly in MATOPIBA—is constrained by limited scale, insufficient transparency, concentration among larger producers and institutions, and uneven territorial coverage. Addressing these challenges will be essential for aligning financial flows with deforestation reduction and long-term sustainability goals.

Improve transparency and classification frameworks. Strengthening reporting systems and advancing tools such as the Brazilian Sustainable Taxonomy (BST) can clarify how taxpayer-supported credit is allocated and ensure that subsidies are aligned with verified sustainable practices—an especially urgent need in high-pressure regions like MATOPIBA. Improved systems may also capture a larger share of credit already supporting sustainable practices but that is not currently visible.

Expand the role of sustainable credit within the broader rural finance system. Given the extensive fiscal support embedded in rural credit through subsidies and tax exemptions, the federal government is well positioned to sharpen incentives by increasing the share of financing tied to sustainability outcomes. A more strategically designed credit architecture could accelerate practice change while supporting productivity gains without further land conversion.

Leverage financial innovation to mobilize and widen access to additional capital. Blended finance and other innovative structures can complement public credit by attracting private investment, diversifying funding sources, and extending financing to underserved producers. Scaling these approaches—while drawing lessons from existing mechanisms—will be critical to building a more effective financing ecosystem for sustainable agriculture in the Cerrado.

Introduction

Brazil has substantial potential to expand agricultural production without further deforestation by improving the use of already cleared land. The Cerrado, Brazil's second-largest biome and one of the country's principal agricultural frontiers, illustrates the opportunities and tensions in advancing sustainable agriculture in Brazil.

More than 100 million hectares (ha) of the biome have already been cleared, leaving roughly half of its native vegetation intact (INPE 2025).[2] At the same time, large areas of degraded pasture can be restored, intensified, or converted to cropland, enabling productivity gains while avoiding additional conversion of native vegetation. Unlocking this potential is central to reconciling Brazil's agricultural growth with long-term environmental sustainability (Antonaccio et al. 2018).

Command-and-control policies that target illegal deforestation are necessary but insufficient to address the scale of deforestation pressures in the Cerrado, given the limits of their regulatory scope. Brazil's Forest Code establishes mandatory conservation requirements on private lands, including the protection of areas of native vegetation. Agricultural activities may only expand in areas that are not subject to these legal protections, with conservation obligations varying across regions and being more restrictive in the Legal Amazon than other parts of the country, including the Cerrado.

Within this context, incentive-based policies play a critical role in shaping land-use decisions. By encouraging productivity gains and the restoration of already converted or degraded lands, sustainable finance can help direct agricultural developments away from areas of native vegetation. These instruments are particularly critical in high-pressure regions like MATOPIBA, spans parts of Maranhão, Tocantins, Piauí, and Bahia states.

Understanding how subsidized rural credit and other financial instruments can support agricultural production while reducing deforestation and environmental degradation provides concrete guidance on how incentive-based policies can be leveraged to accelerate Brazil's transition to more sustainable land use. In this report researchers from Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro (CPI/PUC-RIO) combine quantitative and qualitative analysis to identify key conditions under which financial instruments can more effectively drive sustainable agricultural development, as well as the structural barriers that must be addressed to enhance their impact.

Public rural credit stands out as one of the most immediate and scalable pathways for advancing sustainability in the biome. Constitutional Financing Funds (*Fundos Constitucionais de Financiamento* – FCFs) and subsidized programs under Brazil's Agricultural Plan, such as the Program for Financing Sustainable Agricultural Production Systems (*Programa de Financiamento a Sistemas de Produção Agropecuária Sustentáveis* – RENOVAGRO), offer

2 Values from 2013-2022.

significant potential due to their scale, centralized governance, and ability to influence production decisions. When properly targeted, these instruments represent the largest share of annual agricultural finance and can incentivize sustainable land use.

To assess how this regulatory framework promotes sustainable agriculture, this report analyzes multiple data sources on FCFs and the RENOVAGRO/ABC Program, and compares them with other credit lines under Brazil's Agricultural Plan using the Rural Credit and PROAGRO Operations System (*Sistema de Operações do Crédito Rural e do PROAGRO* – SICOR). **The analysis identifies key barriers to sustainable finance in the Cerrado include uneven financial flows, limited and highly concentrated credit distribution, and insufficient transparency.** These findings coincide with and help inform relevant policy innovations in Brazil. The Ministry of Agriculture and Livestock (*Ministério da Agricultura e Pecuária* – MAPA) has introduced programs to encourage low-carbon production practices and productivity gains without land-use expansion. In addition, the federal government launched the Brazilian Sustainable Taxonomy (BST) to provide a standardized framework for defining sustainability and the Brazilian Green Way (*Caminho Verde Brasil*) to encourage the recovery of degraded pastureland. Additionally, in 2024, the government launched Eco Invest Brazil to attract private and international investment for the country's low-carbon transition, focusing on bioeconomy, clean energy, and ecological restoration using blended finance, currency hedging, and support for sustainable projects, aiming to de-risk investments and boost sustainable development. These initiatives take on added urgency in light of Brazil's updated Nationally Determined Contribution (NDC) from 2024, which commits the country to reducing greenhouse gas (GHG) emissions between 59% and 67% by 2035 relative to 2005 levels.

At the same time, new opportunities are emerging for blended and innovative financial instruments to complement public credit. While these instruments can generate economic incentives for producers to reduce deforestation and adopt sustainable practices, they also face structural challenges. Previous analysis from CPI/PUC-RIO has highlighted the need to expand private sector participation and develop a more competitive and less concentrated credit market capable of mobilizing additional capital for sustainable agriculture (Souza et al. 2021).

To complement systematic data analysis, this report draws on interviews with bank representatives, fund managers, and other stakeholders to better understand the opportunities and barriers associated with scaling private finance. These consultations identified other barriers to expansion, including a limited pipeline of bankable projects that meet investment criteria, insufficient market premiums for deforestation-free commodities, high domestic interest rates, regulatory complexity affecting foreign investment, gaps in financing for small farmers, and uncertainty regarding the additionality of finance in targeting farmers that otherwise would deforest.[3]

3 All credit lines examined in this report, including rural credit and blended finance instruments, were consolidated in an online database. The database , allows users to access key parameters such as interest rates, territorial coverage, funding sources, and related metadata. Learn more at: bit.ly/4rtu4Va

Context

The Cerrado, Brazil's second-largest biome and one of the most biodiverse savannas in the world, plays a critical role in carbon storage, water regulation, and climate stability at the regional and global levels. Covering approximately a quarter of Brazil, the biome is the source of water for eight of the country's twelve major hydrographic basins and supports thousands of endemic plant and animal species (IBGE 2004). These ecological functions are central to Brazil's long-term environmental resilience and agricultural productivity. At the same time, the Cerrado is a cornerstone of Brazil's agricultural economy. The biome accounts for 52% of national soybean production, alongside substantial volumes of corn and other commodities (IBGE 2023), making it the second most economically valuable biome in the country's agricultural sector (IBGE 2025).[4]

This agricultural expansion has come at a high environmental cost. More than half of Cerrado's native vegetation has already been cleared. Over the past decade, the biome has recorded the highest absolute deforestation in Brazil and the second-highest relative deforestation rate (Instituto Nacional de Pesquisas Espaciais 2025),[5] placing it among the most threatened ecosystems in the world (Santana 2024). Continued native vegetation loss undermines biodiversity, soil health, water security, and the livelihoods of local communities, while increasing GHG emissions at scale that directly affects Brazil's ability to meet its climate targets.

Deforestation in the Cerrado cannot be addressed through command-and-control policies alone. Outside of Permanent Preservation Areas (*Áreas de Preservação Permanente* - APPs) and Legal Reserves (*Reserva Legal* - RL) designated by Brazil's Forest Code, land clearing can be legally authorized. Under the Forest Code, RL requirements are set at 20% of property area outside the Legal Amazon and 35% within the Legal Amazon portion of the Cerrado, allowing for the legal conversion of more than half of native vegetation in many areas (INPE 2025).[6] This regulatory context, combined with high agricultural profitability, has accelerated land conversion. Without additional interventions, projections indicate continued deforestation, rising emissions, and increasing climate risks to agricultural productivity due to changes in rainfall patterns.[7]

In response, the Brazilian government has introduced a range of initiatives aimed at reducing deforestation and promoting more sustainable land use. The Action Plan for the Prevention and Control of Deforestation in the Cerrado biome (*Plano de Ação para Prevenção e Controle do Desmatamento no Bioma Cerrado* – PPCerrado) seeks to address deforestation through coordinated monitoring, enforcement, and incentive-based measures (MMA 2023). In

4 Values from 2021.
5 Data for the period 2013-2022.
6 Data for the period 2013-2022.
7 Between 2013 and 2022, the Cerrado experienced deforestation rates similar to those of the Amazon biome. Considering its size, which is about 50% of the tropical biome, the Cerrado has experienced twice as much relative deforestation in the last 10 years (INPE 2025).

parallel, agricultural policies have increasingly emphasized the role of finance in supporting sustainability. Programs such as the Brazilian Agricultural Policy for Climate Adaptation and Low-Carbon Emissions (*Plano de Adaptação e Baixa Emissão de Carbono na Agricultura* – ABC+ Plan, former ABC Plan)[8] and associated rural credit instruments aim to encourage the restoration of degraded lands, integrated crop–livestock–forest systems, and improved soil and landscape management (Oliveira 2024).

While these initiatives have generated localized improvements and helped slow deforestation in some areas, they have not been sufficient to reverse large-scale environmental degradation (CPI 2024). Weak enforcement capacity, limited technical assistance, and inadequate risk management tools continue to constrain their effectiveness. These limitations highlight the need to reassess how policy and financial instruments are designed, targeted, and scaled to address the magnitude of deforestation pressures in the biome.

Alongside public policy, blended finance mechanisms have gained prominence as a means of addressing market failures and mobilizing private capital for sustainable agriculture and conservation. By using concessional public or philanthropic capital—through instruments such as guarantees, first-loss tranches, or interest rate subsidies—these structures seek to reduce investment risk and crowd in private finance. Instruments deployed in this context include debt-based products, such as securitizations and green bonds, as well as payment mechanisms linked to ecosystem services.

Despite their promise, these financial approaches have yet to deliver a transformative impact in the Cerrado. Limited accessibility, bureaucratic complexity, and weak integration with regulatory and credit policy frameworks have constrained their scale. For example, although an estimated 38 million ha of pastureland with low or medium productivity are eligible for recovery under programs such as Brazilian Green Way,[9] mobilizing the volume of capital required for restoration remains a major challenge. To unlock this potential, financial instruments will need to be better aligned with public policy objectives, designed for scale, and integrated into a coherent strategy that supports both sustainable agricultural development and the conservation of remaining native vegetation in the Cerrado.

8 The Agricultural Sector Plan for Climate Change Mitigation and Adaptation for the Consolidation of a Low-Carbon Economy (*Plano Setorial de Mitigação e de Adaptação às Mudanças Climáticas para a Consolidação de uma Economia de Baixa Emissão de Carbono na Agricultura* – Plano ABC) was in force from 2010 to 2020. It was succeeded by the Brazilian Agricultural Policy for Climate Adaptation and Low-Carbon Emissions (*Plano de Adaptação e Baixa Emissão de Carbono na Agricultura* – ABC+ Plan), which is in force from 2020 to 2030.

9 The program aims to recover up to 40 million ha of low productivity pasture over the next 10 years, converting them to high productivity agricultural land without the need to deforest. Learn more at: Ministério da Agricultura e Pecuária (MAPA). O que é o Programa?, nd. Access date: September 15, 2025. bit.ly/46Gk8zc.

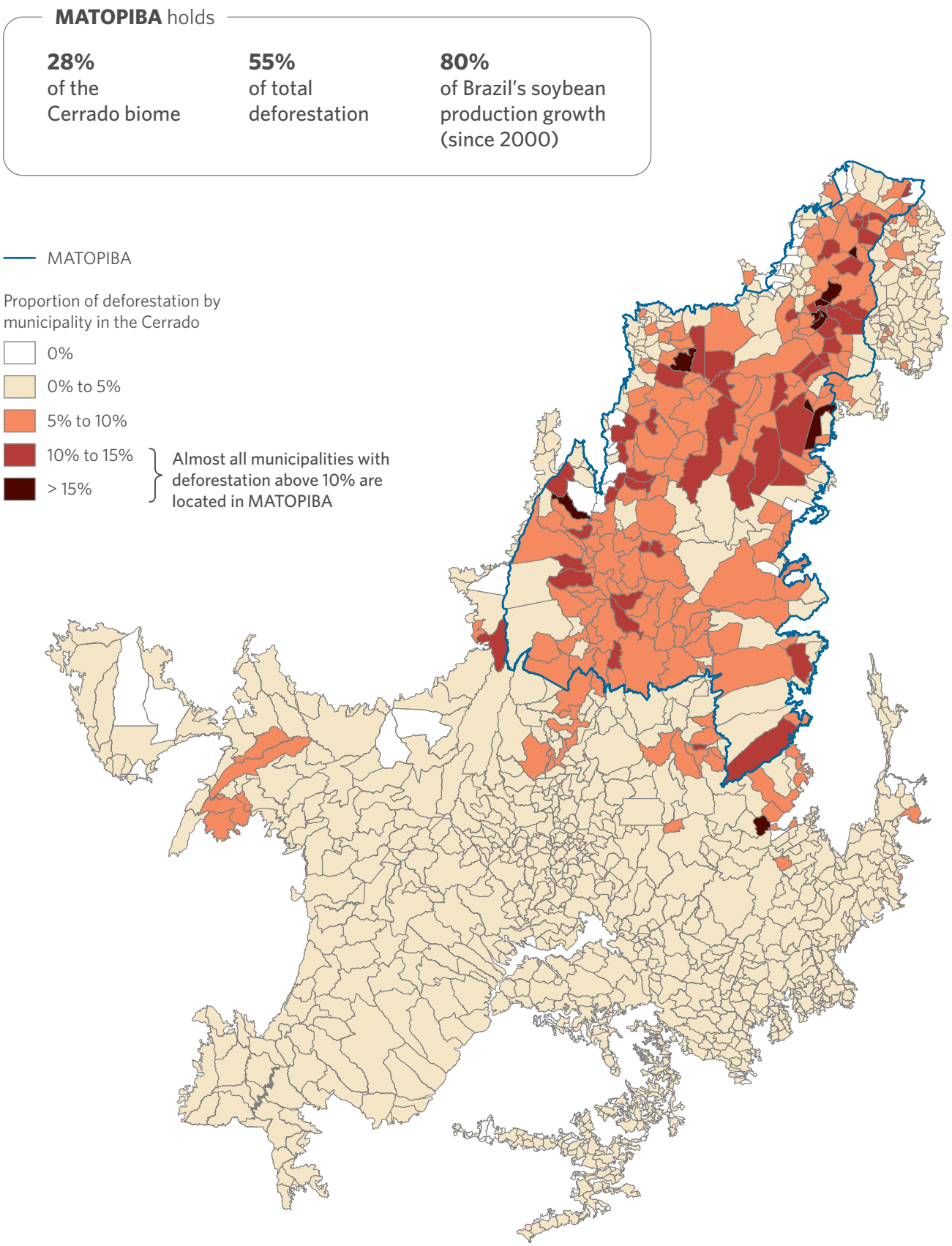
MATOPIBA: The Last Frontier

Deforestation in the Cerrado is mainly driven by the expansion of commercial crops, especially soybeans, and cattle ranching (MapBiomas 2024). Starting in the 1970s, farmers from southern Brazil migrated to the biome (mainly to the states of Goiás, Mato Grosso, and Minas Gerais) in search of cheaper land and favorable government incentives. Technological advances, such as the development of adapted seeds, soil correction, and agricultural mechanization, made large-scale crop production viable and promoted the rapid advance of deforestation. With rising land prices and a shortage of available areas in the Midwest, agricultural expansion shifted to the north of the biome, in the region known as MATOPIBA, an acronym that refers to municipalities in the states of Maranhão, Tocantins, Piauí, and Bahia designated by the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística* – IBGE), which stands out for its marked expansion of the agricultural frontier and crop production of grains such as soybeans and corn.

The MATOPIBA region represents about 28% of the total territory of the Cerrado biome.[10] Despite this, it was responsible for more than 55% of deforestation in the Cerrado between 2013 and 2022, as well as 80% of the growth in soybean production in Brazil since 2000 (INPE 2025) (TNC 2019).[11] Figure 1 below shows the proportion of deforested areas by municipality in the Cerrado and MATOPIBA regions, respectively.

10 Note that while some of the MATOPIBA states overlap with the Amazon biome, over 90% of the territory is contained in the Cerrado.
11 While MATOPIBA saw deforestation of around 4 million ha in the period, the rest of Cerrado outside MATOPIBA saw 3 million ha deforested.

Figure 1. Deforestation in MATOPIBA and the Cerrado, 2013–2022



Source: *CPI/PUC-RIO with data from PRODES, 2025*

Figure 1 highlights the prevalence of deforestation in the MATOPIBA region. Notably, **all municipalities with deforestation rates exceeding 10% of their territory are in the MATOPIBA region, underscoring its centrality in the biome's current deforestation dynamics**. MATOPIBA still retains approximately 60% of its native vegetation cover, compared to around 40% of the rest of the Cerrado. While this remaining vegetation represents a critical reservoir of biodiversity and carbon stocks, it also increases pressure for land conversion, particularly in a context where environmental regulations allow for more extensive deforestation. These conditions make MATOPIBA a priority region for strengthening and scaling sustainable financial instruments capable of incentivizing agricultural expansion toward already cleared or degraded lands.

Addressing these pressures also presents a significant opportunity. The expansion of agriculture without deforestation can be supported through well-designed low-carbon finance mechanisms that incentivize productivity gains rather than land conversion. To assess the barriers and opportunities for scaling such instruments, this report focuses on MATOPIBA and analyzes two broad categories of financial tools: public subsidized rural credit and blended finance mechanisms. This framework provides the basis for understanding how finance can more effectively support sustainable agricultural development in the region.[12]

12 All financial instruments analyzed deal with credit for rural production. While relevant, this study did not map sustainable instruments not associated with rural production, such as loans for solar panels, nor did it map non-credit instruments such as rural insurance.

Overview of Rural Credit in the Cerrado

Brazil's Agricultural Plan is the federal government's primary instrument for channeling financial resources to the agricultural sector. Through the Plan, public policy directs large credit flows toward agricultural production, thereby shaping investment and production incentives. Agricultural Plans operate on annual cycles running from July 1st to June 30th of the following year, with resources renewed at the end of each period.[13] This section examines the allocation and characteristics of rural credit in the Cerrado and MATOPIBA regions during the 2020/21 to 2023/24 agricultural years, a period in which the total rural credit disbursed to producers in Brazil reached approximately R$ 1.34 trillion (BCB 2025).

The Brazilian Agricultural Plan encompasses several distinct financing mechanisms, not all of which are subsidized. One channel consists of interest rate equalization, through which the federal government subsidizes credit lines aligned with strategic policy objectives, such as PRONAF and RENOVAGRO for producers adopting sustainable practices. A second channel involves public funding sources, whereby federal resources are transferred to specific funds that manage allocation according to predefined criteria and objectives. Examples include the FCFs and the Fund for the Defense of the Coffee Industry (*Fundo de Defesa da Economia Cafeeira* – FUNCAFÉ), which each operate credit lines with tailored eligibility rules. A third channel comprises targeted resources, under which financial institutions are legally required to allocate a portion of funding sources to rural credit. These include instruments such as Agribusiness Credit Notes (*Letras de Crédito Agrícola* – LCAs), for which at least 60% of issued resources must be directed to rural lending and rural savings accounts and are subject to mandatory allocation requirements. Depending on the financial institution, targeted resources may also include sustainability-related conditions.

These financing mechanisms are not mutually exclusive. A single credit line may combine public funding, interest rate equalization, and targeted resource requirements. For analytical purposes, rural credit lines in this report are classified into two broad categories: subsidized and non-subsidized.[14] During the period analyzed, subsidized credit lines accounted for approximately R$ 487 billion compared to unsubsidized lines, which totaled R$ 854 billion between 2020/21 and 2023/24 (BCB 2025). Although all rural credit operations are recorded in a centralized system (SICOR), the level of information available varies significantly between subsidized and non-subsidized credit. Subsidized loans require more detailed reporting, enabling a more granular analysis by region and program. In contrast, limited disclosure for non-subsidized credit restricts the ability to assess allocation patterns by biome or municipality. Given the policy relevance of interest rate subsidies for incentivizing low-carbon agricultural practices and the greater availability of detailed data,

13 This period is established as an agricultural year.

14 This report uses data from the SICOR Complement Basic Operation database. This database contains only subsidized operations from rural credit, as defined by the Central Bank of Brazil. Learn more at: Central Bank of Brazil (BCB). *Tabelas e Microdados do Crédito Rural e do Proagro. Sicor - Tabelas de Domínio do Crédito Rural e do Proagro*. 2025. Access date: December 2, 2025. bit.ly/4i15VkX.

this report focuses on subsidized rural credit as the most suitable entry point for evaluating the role of finance in promoting sustainable agriculture and reducing deforestation in the Cerrado and MATOPIBA.

Defining Sustainability

The concept of sustainability in agricultural finance encompasses a range of criteria and practices. Efforts are underway in Brazil to establish a national framework through the BST, which aims to standardize the classification of sustainable economic activities, including those in the agricultural sector.[15]

In the absence of a single national standard, other taxonomies and classification systems have made efforts to define sustainable practices, often with differing scopes and thresholds (Oliveira 2024). These classifications usually include practices such as drip irrigation, minimum cultivation and no-till farming, protected cultivation, afforestation and reforestation, ecological and organic agriculture, crop-cattle-forest integration (CCFI)[16] environmental recovery, and the use of bio-inputs, among others. The most widely used frameworks include Public Consultation no. 82, MAPA's Sustainable Production Systems, Practices, Products, and Processes of ABC+ Plan (*Sistemas, Práticas, Produtos e Processos de Produção Sustentáveis do Plano ABC+* – SPS_{ABC}) the Climate Bonds Initiative (CBI) Taxonomy, and the Brazilian Federation of Banks' (*Federação Brasileira de Bancos* – FEBRABAN).[17]

This analysis adopts the sustainability criteria defined by MAPA's SPSABC, which considers all RENOVAGRO/ABC Program credit lines that include some of the sustainable practices listed above.[18] Under this approach, sustainability is determined exclusively by the design of credit lines, rather than by ex-post verification of individual practices. All credit lines under the RENOVAGRO/ABC Program, as well as specific PRONAF subprograms focused on agroecology, bioeconomy, forestry, and semi-arid regions (*PRONAF Verde*), are classified as sustainable. This definition was selected because it is the only framework that allows sustainability to be consistently identified based solely on credit line characteristics, making it compatible with available administrative data.

15 The official Brazilian Sustainable Taxonomy was published in December 2025, at the time that this report was being finalized. It has yet to be implemented. Learn more at: Participa + Brasil. *Taxonomia Sustentável Brasileira - 2ª fase*, sd. bit.ly/463RDLM.

16 Crop-Cattle-Forest Integration (CCFI) is referred to in Brazil as Integrated Crop-Livestock-Forestry Systems (ICLFS) as defined by Brazilian Agricultural Research Corporation (*Empresa Brasileira de Pesquisa Agropecuária* - EMBRAPA). CCFI is an agricultural production strategy that integrates different production systems, namely agricultural, animal farming and forestry systems, within the same area. It can be performed through intercropping, crop succession or crop rotation, so that all the activities are mutually beneficial. Such integrated systems aim to optimize land use by increasing productivity levels in one area, better using inputs, diversifying production and generating more jobs and income. All of this in an environmentally sound way, with low greenhouse gas emissions or even mitigating such emissions." Learn more at: Empresa Brasileira de Pesquisa Agropecuária (Embrapa). *Integrated crop-livestock-forestry systems*. 2025. Access date: December 19, 2025. bit.ly/462jD2l.

17 All these different taxonomies are listed in CPI's work on Brazilian Sustainable Taxonomy. Learn more at: Oliveira Wagner et al. *Brazilian Sustainable Taxonomy: Inputs for Classifying Land Use Activities.* Climate Policy Initiative, 2024. bit.ly/BrazilianTaxonomy.

18 Established through the Ecological Transformation Plan in October 2025, the BST has a regulatory design—expressed through eligibility criteria, eligible purposes, and safeguards—that makes it possible to examine the extent to which they incorporate elements that are compatible or incompatible with the parameters established on the activities financed by the rural credit lines. On the other hand, while compatibe, the BST was not designed to frame credit policy instruments. Moreover, rural credit lines were not designed considering the BST, as they were formulated prior to its discussion. These are distinct institutional arrangements, with different origins, objectives, and internal logics. For this reason, this article chose the SPS_{ABC} criteria, which incorporates rural credit lines into its sustainability definitions.

The Finance Program for Sustainable Agricultural Production Systems (RENOVAGRO)

The RENOVAGRO is a program under Brazil's Agricultural Plan regulated under the Rural Credit Manual (*Manual de Crédito Rural* – MCR) in the chapter on Agricultural Investment Programs (*Programas de Investimento Agropecuário* – INVESTAGRO) (BCB 2025). Like other major programs in the Agricultural Plan, RENOVAGRO has an interest rate equalized by the federal government and distributed through financial institutions. It represents a reformulation of the former ABC Program, maintaining similar objectives and operational principles.

RENOVAGRO is designed to support sustainable agricultural practices. Its objectives include reducing GHG emissions from agricultural activities, curbing deforestation, increasing agricultural production on a sustainable basis, promoting compliance with environmental legislation, expanding planted forests, and stimulating the recovery of degraded lands.

The program is divided into subprograms with specific purposes aligned with these objectives. Depending on the subprogram, interest rates currently range between 8.5% and 10%. The subprograms include:

- **Recovery and Conversion:** Recovery of degraded pastures
- **Organic:** Implementation and improvement of organic agricultural production systems
- **No-Till Farming System:** Implementation and improvement of no-till systems with straw mulching for grains, sugarcane, and vegetables
- **Integration:** Implementation and improvement of CCFI systems, and other variations and agroforestry systems
- **Forests:** Implementation, maintenance, and improvement of forest management
- **Environmental:** Environmental compliance of rural properties, including restoration of RLs, APPs, etc.
- **Animal Waste Management:** Treatment and reuse of animal production waste for energy generation and composting
- **Palms:** Implementation, improvement, and management of palm forests for energy use
- **Bio-inputs:** Adoption and on-farm production of bio-inputs
- **Soil Management:** Conservation practices for soil use, management, and protection

Producers are eligible for RENOVAGRO financing once they submit a proposal consistent with one of these purposes and with the eligible items defined in the technical guidelines.

It should be noted that only practices financed through explicitly sustainable credit lines are classified as sustainable in this analysis. If a producer adopts similar practices using other credit lines that do not condition financing on sustainability criteria, those operations cannot be captured. While some subsidized rural credit lines outside the RENOVAGRO/ABC Program require practices such as CCFI, the absence of standardized reporting prevents verification of whether sustainability criteria were applied. This limitation highlights persistent transparency gaps, even when public resources are involved.

Credit Line Classification

To analyze the origin and characteristics of rural credit in the Cerrado and MATOPIBA, rural credit operations recorded in SICOR were grouped into seven categories, displayed in Table 1 where the ones highlighted in green are considered sustainable:

Table 1. Credit Line Classification

Credit Line	Description
RENOVAGRO/ABC Program	All RENOVAGRO and ABC Program subprograms, excluding PRONAF. These credit lines comprise multiple subprograms with specific objectives, including the reduction of GHG emissions, the prevention of deforestation, the promotion of environmentally sustainable increases in agricultural production, support for compliance with environmental legislation, the expansion of planted forests, and the recovery of degraded lands (see Box 1).
Sustainable PRONAF (*PRONAF Verde*)	PRONAF subprograms aligned with RENOVAGRO/ABC Program objectives (Agroecology, Bioeconomy, Forest, and Semi-Arid). These subprograms operate under PRONAF and pursue the same sustainability objectives described above, but are specifically targeted at small-scale producers.
Non-sustainable PRONAF *(PRONAF não Verde)*	Other PRONAF subprograms established under the Brazilian Agricultural Plan. Although these credit lines are designed to support smallholder farmers, they are not classified as sustainable because they do not include sustainability-related eligibility criteria.
PRONAMP	All PRONAMP subprograms established under the Brazilian Agricultural Plan. These lines are targeted at medium-scale farmers; however, none of the subprograms incorporate sustainability-related criteria and are therefore not considered sustainable.
Conventional credit lines	Other subprograms under the Brazilian Agricultural Plan not included in the categories above. None of these credit lines contain sustainability-related criteria.
FCF lines	Credit lines that are designed and operated exclusively by the FCFs. These lines encompass a wide range of subprograms, from those with sustainability-related criteria (e.g., *FNE Verde*) to those without such criteria. Because it is not possible to systematically distinguish sustainable from non-sustainable subprograms within this category, it is not classified as sustainable (see Box 2).
Credit lines without programs	Equalized subsidized credit lines offered by financial institutions that are not linked to either the Brazilian Agricultural Plan programs or the FCFs. While some of these lines may include programs with sustainability-related criteria, they are not classified as sustainable due to the lack of clear identification.

Note: *This aligns classification with the SPS_{ABC} framework, where only the RENOVAGRO/ABC Program and PRONAF Verde lines are classified as sustainable. Although FCF lines and credit lines without programs may include environmental conditions, they also encompass loans without any sustainability requirements, and there are no current means to distinguish them.*

Constitutional Financing Funds (FCFs)

FCFs were established to promote socioeconomic development in specific regions in Brazil. The FCFs for the Midwest Region (*Fundo Constitucional de Financiamento do Centro-Oeste* – FCO), Northeast (*Fundo Constitucional de Financiamento do Nordeste* – FNE), and North (*Fundo Constitucional de Financiamento do Norte* – FNO) aim to support productive activities aligned with regional development plans, including agriculture, agro-industry, industry, commerce, and services. Beneficiaries include individuals, firms, and cooperatives operating in the respective regions.

Each year, the funds receive 3% of federal revenue from Income Tax (*Imposto de Renda* – IR) and the Tax on Industrialized Products (*Imposto sobre Produtos Industrializados* – IPI) allocated as follows: 0.6% to the FCO, 1.8% to the FNE, and 0.6% goes to the FNO.[19,20] These resources are tax-exempt and are managed primarily through regional federal banks: Banco do Brasil for the FCO, Banco do Nordeste for the FNE, and Banco da Amazônia for the FNO. Within the Cerrado, states are covered by different funds depending on their geographic location.[21]

In addition to operating Agricultural Plan programs such as PRONAF and PRONAMP, FCFs offer their own credit lines aligned with regional development strategies. Some of these lines incorporate environmental or sustainability criteria including *FNE Verde*, *FCO Verde*, and *Amazônia Rural Verde*, which share similarities with the RENOVAGRO/ABC Program, but differ in scope and operational design.

Under the SPS_{ABC} framework, only the RENOVAGRO/ABC Program and *PRONAF Verde* lines are classified as sustainable. Although FCF lines and non-program credit lines may include environmental conditions, they also encompass loans without any sustainability requirements. Because SICOR does not allow these distinctions to be identified, sustainable finance in the Cerrado and MATOPIBA is likely underestimated in this analysis. Where relevant, the report explicitly indicates how data limitations and transparency gaps affect the interpretation of results.

Results

This analysis assesses the role of sustainable credit in the Cerrado region, with an emphasis on MATOPIBA, to better understand the prevalence and penetration of sustainable finance and identify challenges and opportunities for its expansion.

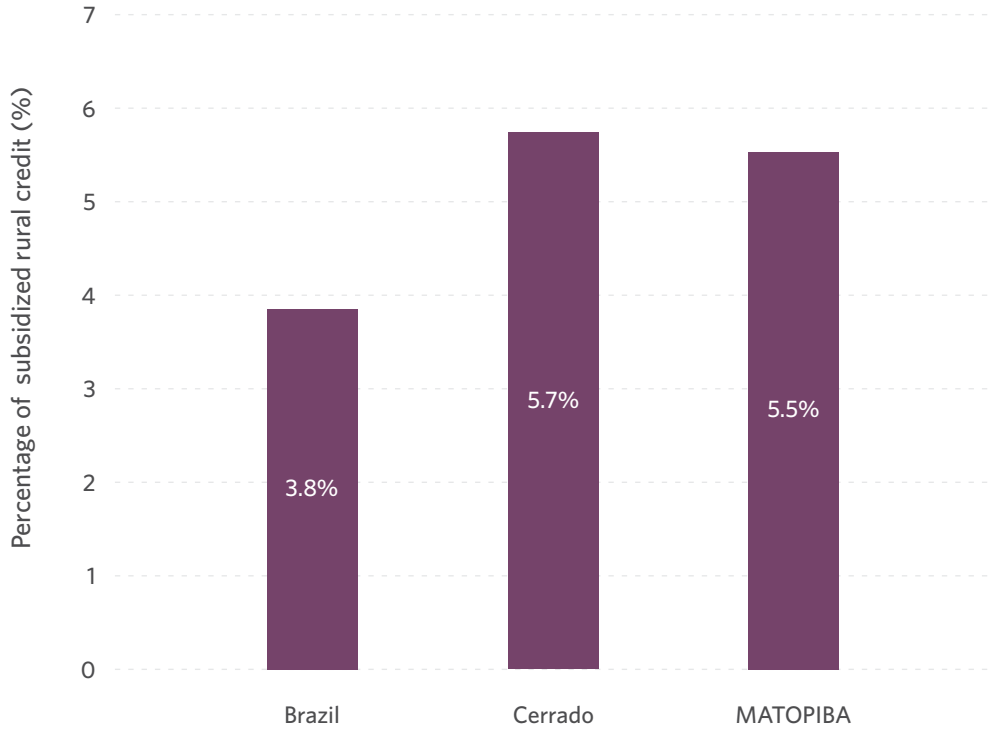
Analysis of subsidized rural credit shows that sustainable lines make up only a small share of the total subsidized credit, amounting to less than 4% nationally. Figure 2 compares the percentage of subsidized sustainable credit between MATOPIBA, the Cerrado, and Brazil. While the share of sustainable lines for the Cerrado and MATOPIBA is slightly higher than the national average, they remain below 6% of the total.

19 Law no. 7,827, September 27, 1989 - Regulates Article 159, item I, subitem c, of the Federal Constitution, establishes the Constitutional Financing Fund of the North Region (FNO), the Constitutional Financing Fund of the Northeast Region (FNE), and the Constitutional Financing Fund of the Midwest Region (FCO), and makes other provisions. bit.ly/4rcLzJp.

20 FCFs have other forms of finance such as interest, amortizations, and donations. However, as this article aims to understand the benefits granted by the government that generate some expense for society, we only address transfers from the public sector to these funds.

21 The states of Rondônia and Tocantins are covered by the FNO; Maranhão, Piauí, and Bahia by the FNE; Mato Grosso, Mato Grosso do Sul, Goiás, and the Federal District are covered by the FCO.

Figure 2. Share of Sustainable Lines in Subsidized Rural Credit (2020/21–2023/24)



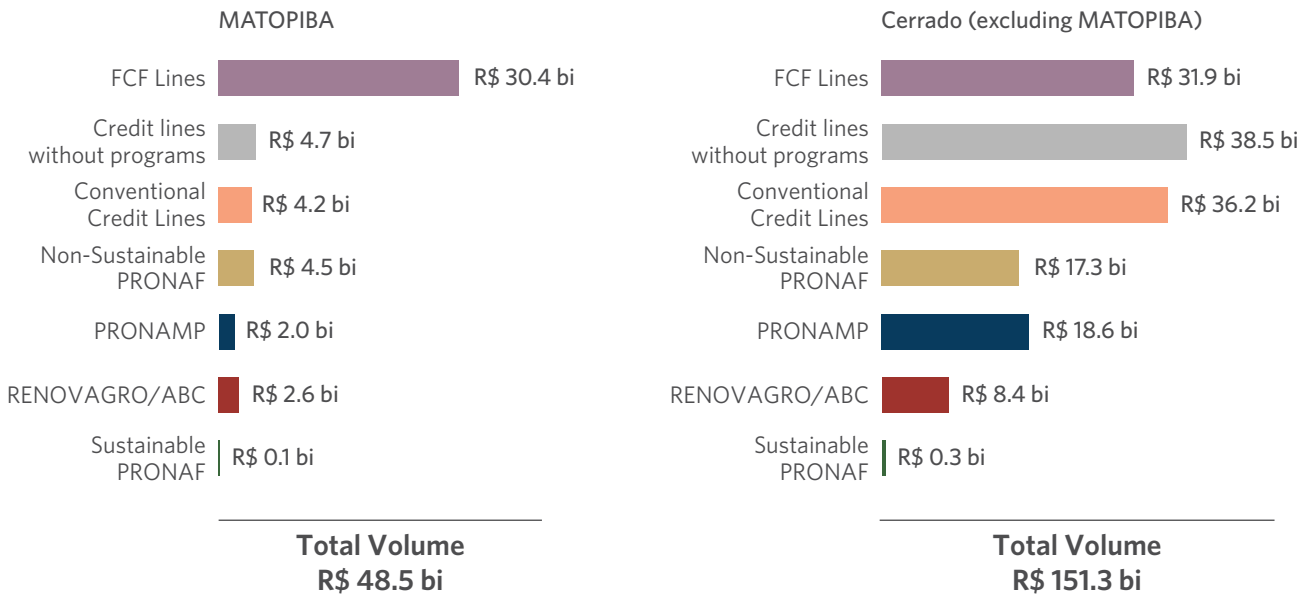
Source: *CPI/PUC-RIO with data from SICOR, 2025*

Between the agricultural years 2020/21 and 2023/24, the amount of subsidized credit—adjusted to December 2024 prices—amounted to approximately R$ 543.3 billion nationwide. **Over the same period, the Cerrado and MATOPIBA regions accounted for roughly R$ 198.8 billion and R$ 48.5 billion, respectively.**

In contrast, the volume of credit allocated to sustainable credit lines was substantially smaller, totaling R$ 20.9 billion for Brazil as a whole, R$ 8.8 billion for the Cerrado, and R$ 2.7 billion for MATOPIBA. These figures represent only a limited share of total subsidized credit, and the actual volume of sustainable financing may be underestimated. This is because several credit line classifications encompass both sustainable and non-sustainable instruments, and the available data do not allow for a clear distinction between them. Even so, because RENOVAGRO/ABC Program is and was the government's primary program for improving environmental outcomes through rural credit, the funding allocated to it remains disproportionately small, even when considering only subsidized rural credit, as shown in Figure 2.

Consequently, assessing how this lack of transparency affects the estimation of sustainable credit requires a detailed examination of the distribution of credit across different line classifications. In this regard, Figure 3 illustrates the volume allocation of subsidized rural credit by credit line classification in MATOPIBA and Cerrado.

Figure 3. Volume of Subsidized Credit per Billion Reais (2020/21–2023/24)



Source: *CPI/PUC-RIO with data from SICOR, 2025*

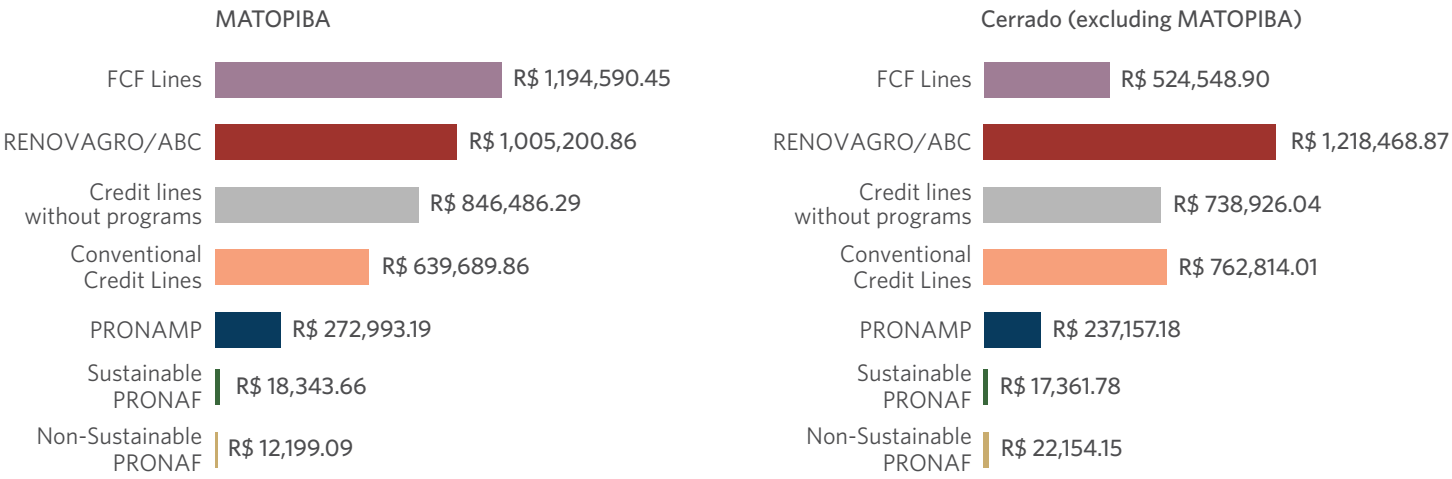
The figure above shows that FCF finance plays a prominent role in MATOPIBA. **With a total amount of R$ 30.41 billion, FCF credit accounts for more than 62% of the total credit in the region.** When combined with credit lines from other programs, more than 72% of MATOPIBA lacks identifiable sustainability criteria beyond those established under the SPS_{ABC}.

In the rest of the Cerrado, FCFs represent a significantly smaller share of the finance—approximately 21% of subsidized credit and 47% when including the non-program lines. **Despite being the region with the highest deforestation rates, MATOPIBA exhibits the lowest transparency regarding sustainability linked financial instruments, with only about 28% of subsidized rural credit subject to sustainability criteria beyond SPS_{ABC}.**

Sustainable credit lines account for only a small share of total credit, R$ 2.7 billion in MATOPIBA and R$ 8.7 billion in the rest of the Cerrado, and remain smaller than other credit categories in all cases, except for PRONAMP in MATOPIBA.

Beyond the aggregate volume of resources, understanding the effectiveness of public policies aimed at sustainable outcomes requires an assessment of how these resources are distributed. Broad accessibility—across different types of producers and in as many municipalities as possible—is essential to encourage the adoption of sustainable agricultural practices and to achieve the scale necessary to reduce GHG emissions and deforestation. To examine how sustainable credit lines are distributed across producers relative to other types of credit, Figure 4 presents the average credit value per program for MATOPIBA and for the remainder of the Cerrado, respectively.

Figure 4. Volume of Subsidized Credit per Contract Installment (2020/21–2023/24)



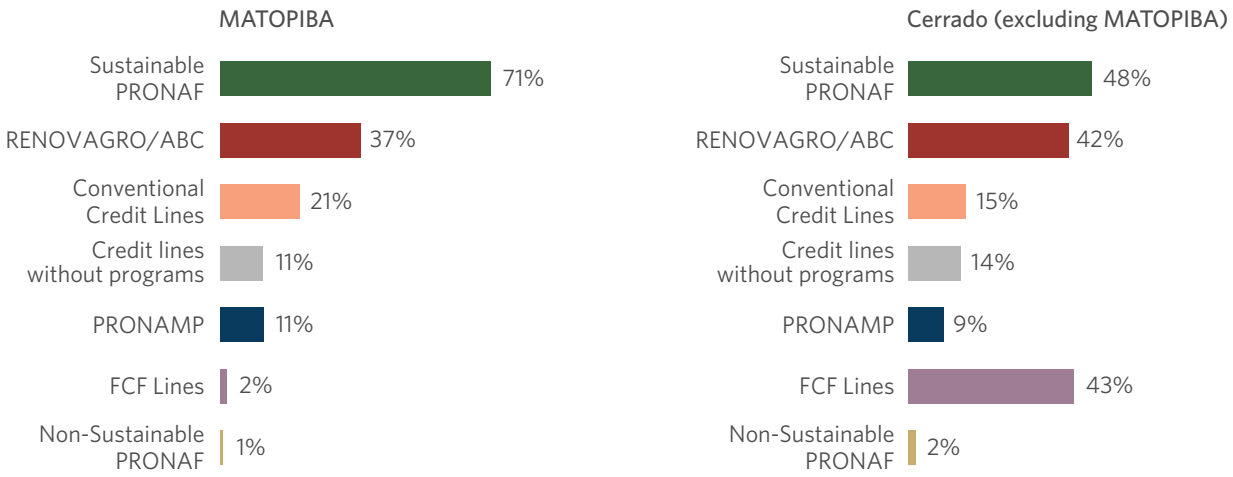
Source: *CPI/PUC-RIO with data from SICOR, 2025*

An analysis of the average installment value per contract in MATOPIBA shows that FCFs stand out with the highest volumes. At the same time, these funds offer limited transparency regarding the allocation of resources, as the SICOR database contains restricted information on these credit lines.

The RENOVAGRO/ABC Program also presents higher average credit volumes than conventional lines and lines without a program in MATOPIBA and the rest of the Cerrado. This pattern also suggests that producers accessing sustainable credit may, on average, operate larger properties and have stronger economic conditions than those receiving other types of financing. While the overall profile of sustainable credit in the rest of the Cerrado resembles that of MATOPIBA, FCFs account for less than half the volume observed in MATOPIBA, indicating that these funds may be disproportionately financing larger producers in that region.

The availability of finance is a key determinant of access to sustainable credit. In terms of municipal coverage, Figure 5 presents the share of municipalities in which no producers accessed credit, disaggregated by the type of credit line.

Figure 5. Percentage of Municipalities Without Subsidized Operations by Credit Line (2020/21–2023/24)

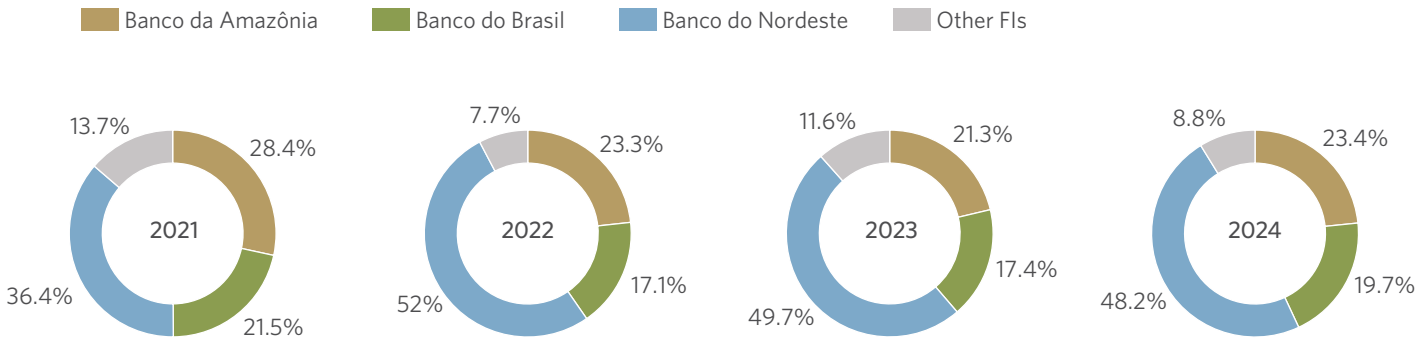


Source: *CPI/PUC-RIO with data from SICOR, 2025*

The distribution of sustainable credit lines is the poorest among all classifications. Sustainable PRONAF fails to reach 71% of municipalities in MATOPIBA, while the RENOVAGRO/ABC Program reaches only 37%. Coverage gaps are also substantial in the rest of the Cerrado, where FCF lines likewise fail to cover a significant share of municipalities. Overall, these patterns suggest that sustainable credit lines are not effectively reaching producers across the biome.

To better understand the market for subsidized lines and, in particular, for sustainable credit, the following figures highlight the market conditions for both MATOPIBA and the rest of the Cerrado. Figure 6 shows MATOPIBA's market share of banks for total subsidized rural credit. The market share in MATOPIBA consists mainly of three banks that hold around 85% to 90% of the total: Banco do Brasil, Banco do Nordeste, and Banco da Amazônia.

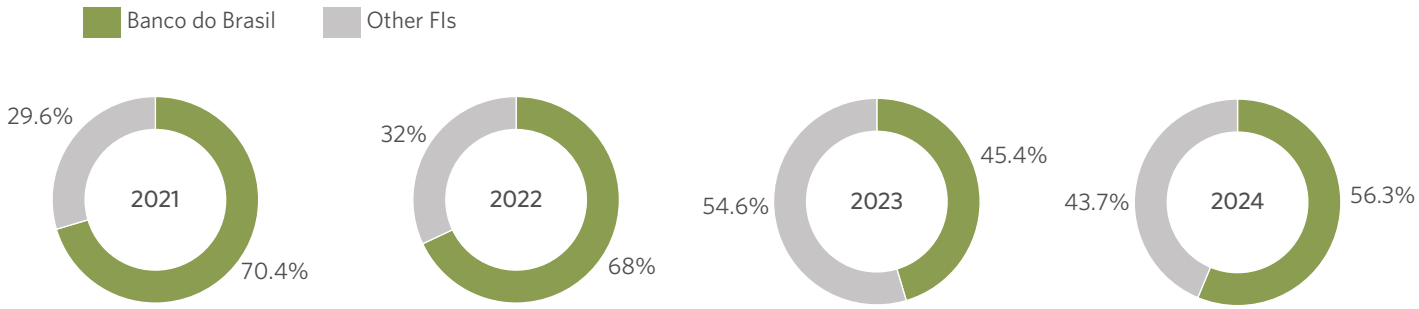
Figure 6. Volume of Subsidized Rural Credit per Year and per Institution in MATOPIBA (2020/21–2023/24)



Source: *CPI/PUC-RIO with data from SICOR, 2025*

Figure 7 highlights the market share for sustainable lines in the period analyzed. In the case of sustainable lines, Banco do Brasil stands out, holding close to 50% of the total operations in the region over the period. This demonstrates a highly concentrated market, dominated by banks that manage FCFs.

Figure 7. Volume of Sustainable Subsidized Rural Credit per Year and per Institution in MATOPIBA (2020/21–2023/24)

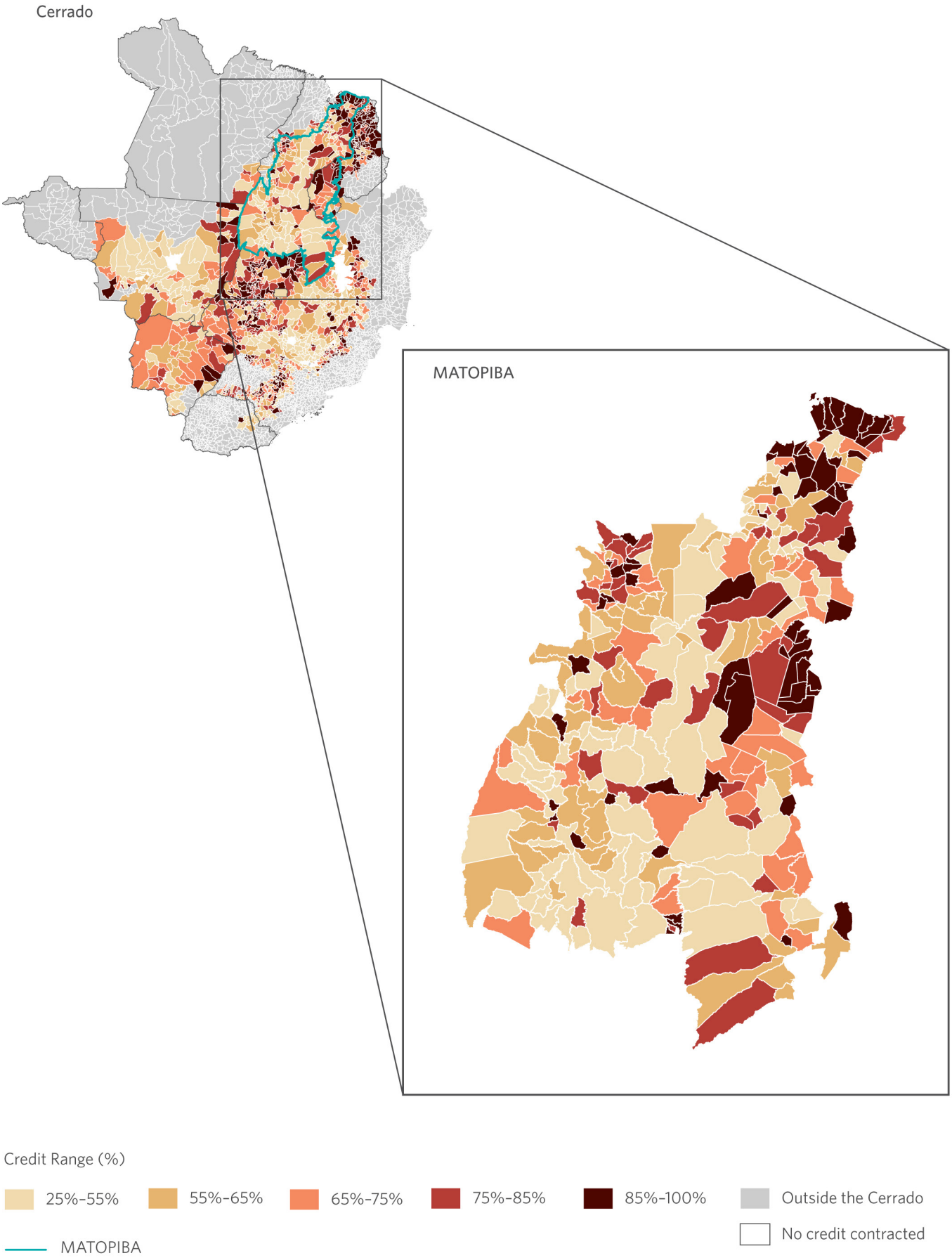


Source: *CPI/PUC-RIO with data from SICOR, 2025*

Beyond overall market share, it is essential to assess whether supply options are limited by examining how this market share is distributed—or concentrated—across municipalities.

Figures 8 shows the market share of the main financial institution per municipality in the Cerrado and MATOPIBA.

Figure 8. Percentage of Subsidized Rural Credit From the Main Bank by Municipality in the Cerrado and MATOPIBA (2020/21–2023/24)

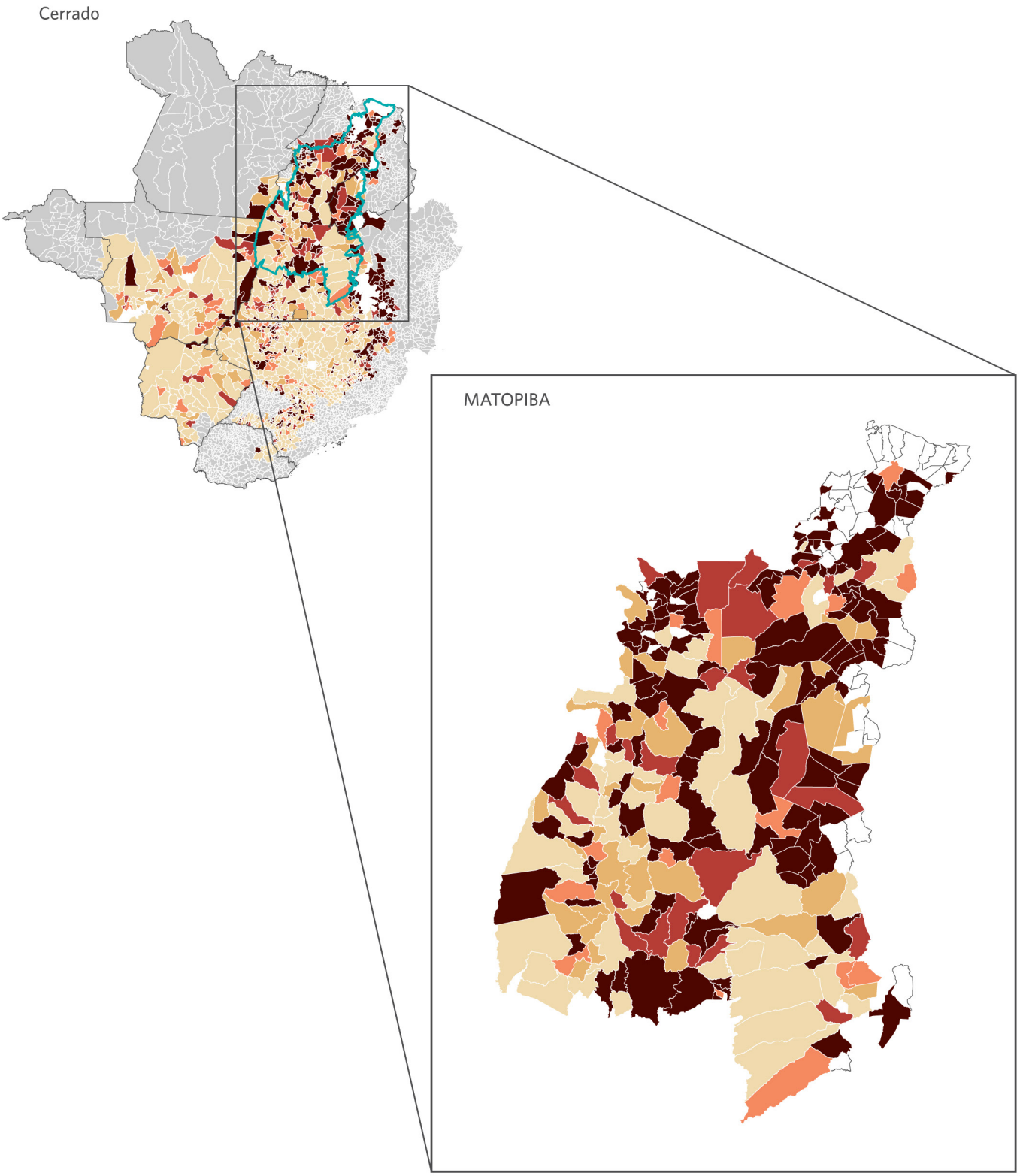


Source: *CPI/PUC-RIO with data from SICOR, 2025*

The figure indicates that the credit landscape in MATOPIBA broadly similar to that of the rest of the Cerrado, with the leading financial institution holding a comparable market share in both regions. In municipalities outside MATOPIBA, the largest institution accounts for an average of 69.7% of the market, while in MATOPIBA, the average is slightly higher, at 71%.

Overall, this suggests a similar level of market concentration across the two regions. However, the picture changes when focusing exclusively on private financial institutions. Figure 9 presents the market share of subsidized rural credit among private institutions in MATOPIBA and in the broader Cerrado, respectively.

Figure 9. Percentage of Subsidized Rural Credit from the Main Private Bank by Municipality in MATOPIBA (2020/21–2023/24)

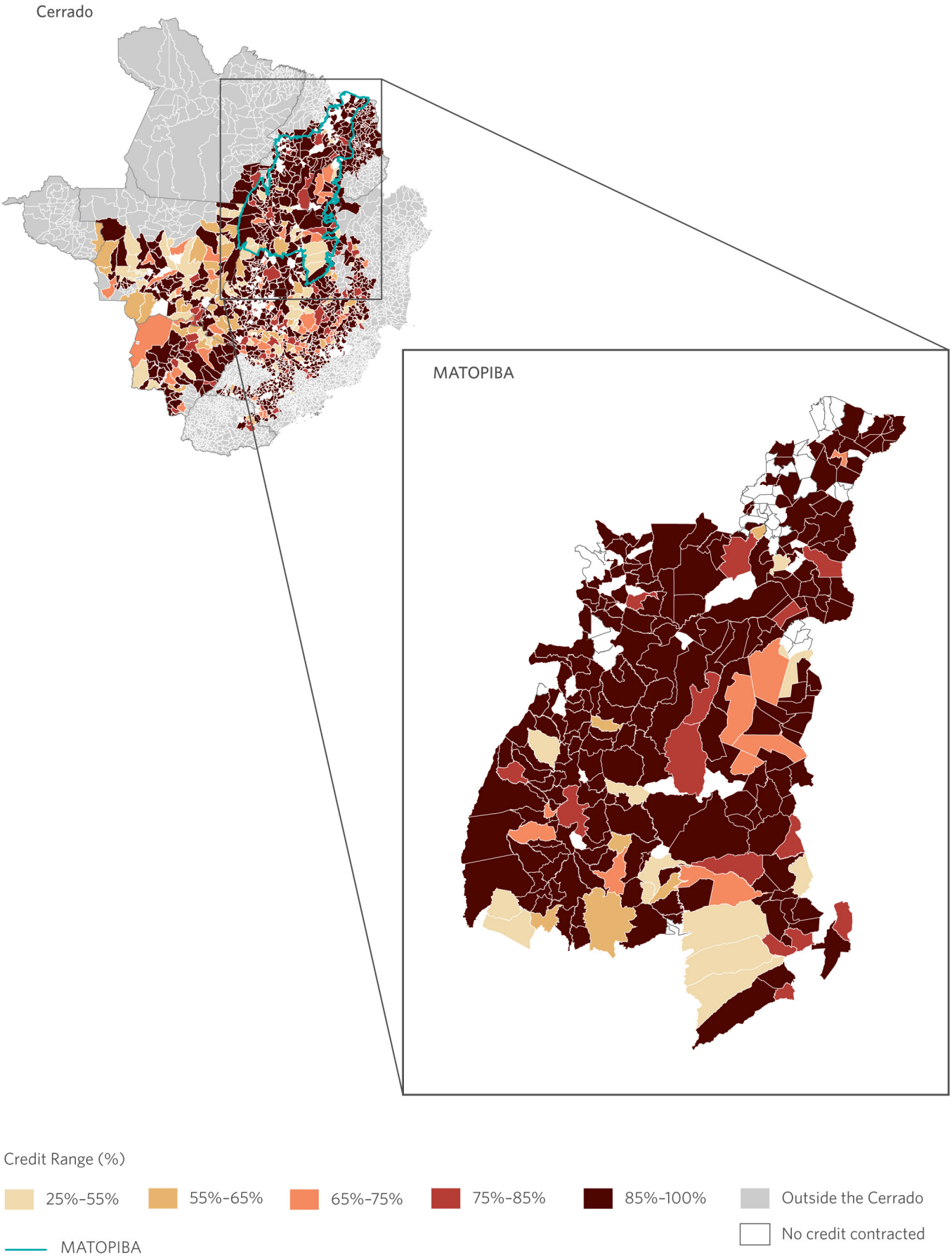


Source: *CPI/PUC-RIO with data from SICOR, 2025*

Figure 9 shows that the concentration of private institutions is considerably higher in MATOPIBA than in the rest of the Cerrado. **While in the broader Cerrado, the main financial institution holds around 59% of the non-public market share; this figure rises to 72.5% in MATOPIBA. This suggests that private institutions have more limited penetration and face greater concentration in MATOPIBA compared to other areas of the Cerrado.**

Thus far, the analysis has considered all subsidized credit lines. However, to properly assess the effectiveness of sustainable credit, it is essential to examine market concentration specifically within sustainable credit lines. In terms of sustainable credit, the concentration index of the leading financial institution is similarly high in both MATOPIBA and the rest of the Cerrado, indicating excessive market concentration across the two regions. Figure 10 shows the municipal-level concentration of sustainable subsidized rural credit held by the main financial institution in MATOPIBA and the broader Cerrado.

Figure 10. Percentage of Sustainable Subsidized Rural Credit from the Main Bank by Municipality in MATOPIBA (2020/21–2023/24)

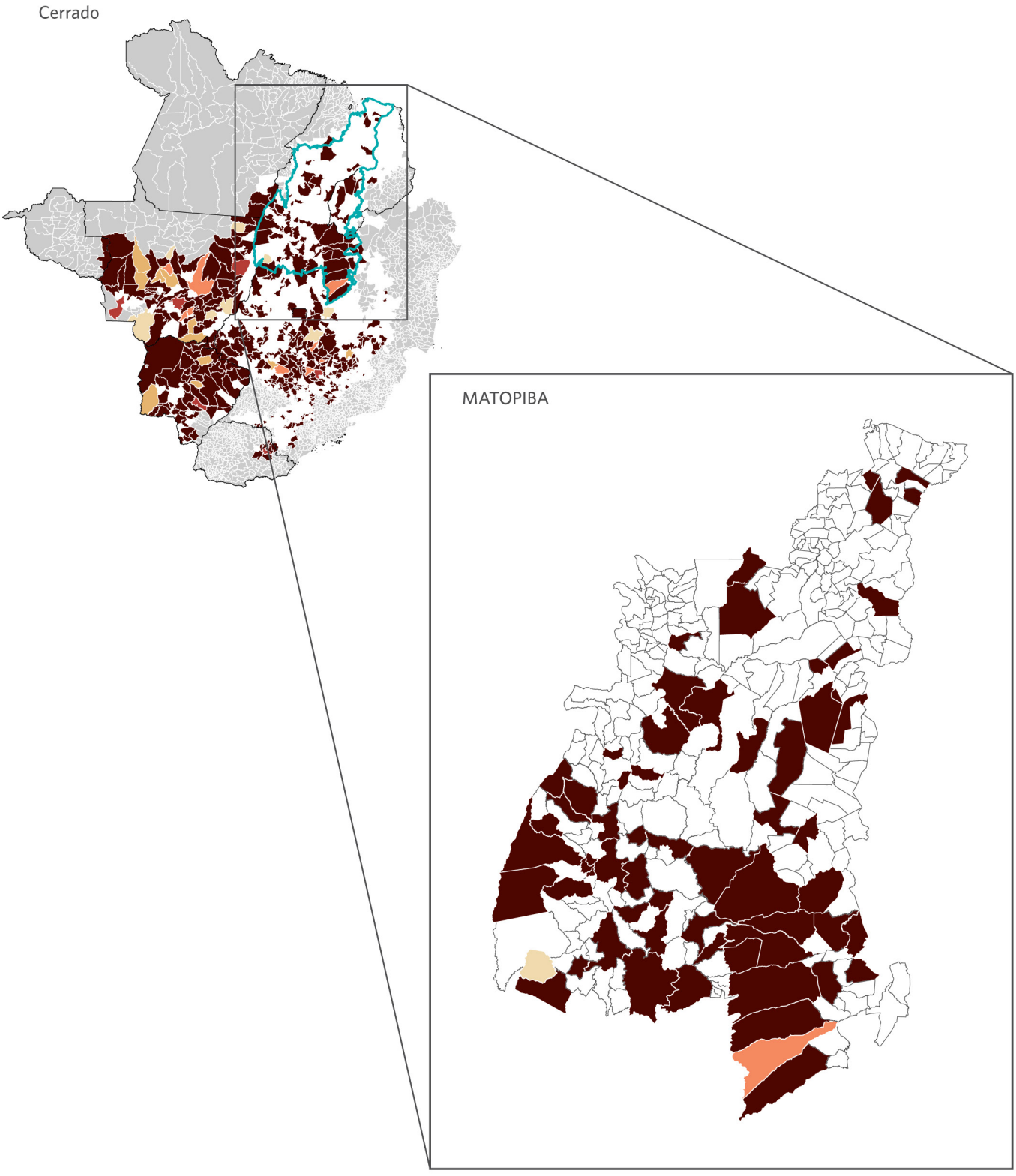


Source: *CPI/PUC-RIO with data from SICOR, 2025*

A substantial number of municipalities recorded sustainable rural credit contracts from only one financial institution or by none at all. In both MATOPIBA and the broader Cerrado, the leading institution holds, on average, more than 90% market share in sustainable credit among municipalities where at least one sustainable loan was issued. Although other sustainable lines may exist, the high concentration observed in RENOVAGRO/ABC Program and Sustainable PRONAF is concerning and suggests limited competition and restricted access.

The situation is even more pronounced when focusing exclusively on non-public financial institutions. Figure 11 presents the market share of sustainable rural credit held by the main private financial institution in MATOPIBA and the broader Cerrado.

Figure 11. Percentage of Sustainable Subsidized Rural Credit from the Main Private Bank by Municipality in MATOPIBA (2020/21–2023/24)



Source: *CPI/PUC-RIO with data from SICOR, 2025*

Although there is little difference between MATOPIBA and the rest of the Cerrado, the data show that, in municipalities where sustainable credit is offered by private institutions, the leading non-public bank holds an average market share of approximately 95%. In the majority municipalities, however, no private institution issued sustainable credit contracts at all.

Because FCF credit is primarily administered by public banks, the concentration problem among private institutions is likely even more pronounced than suggested in the previous figure.

An important exception appears in the states of Mato Grosso and Mato Grosso do Sul, where more consolidated crop production systems are associated with greater private sector participation in sustainable credit markets.

Blended and Private Financial Structures

The analysis shows that there are limits to the capacity of the traditional rural credit system to provide financing lines that promote sustainable agriculture in MATOPIBA. In this context, blended finance structures—which leverage concessional resources more efficiently—can help shift this dynamic. This analysis of nine instruments illustrates how these structures can complement the rural credit system in financing agriculture in Brazil.

By definition, a blended financial instrument leverages concessional or catalytic capital, meaning below market-rate capital, to de-risk and crowd in commercial investment. These instruments can take many forms, including equity, debt, and guarantees, and can offer targeted flexibility in terms and structure that public subsidies cannot easily provide.

In the Cerrado, blended instruments can be particularly valuable for reaching parts of the sustainable finance ecosystem where public credit is unavailable or not suitable. These instruments can also act as a bridge for farmers who do not require full government subsidization but are not yet able to fully afford commercial rates. In this way, blended finance expands the reach of both public and private sustainable finance while also directly contributing to sustainable outcomes.

This section presents an overview of nine active and retired blended-finance instruments identified for promoting sustainable agriculture in the Brazilian Cerrado. These examples are not exhaustive but illustrate a range of blended approaches in the region. The analysis highlights key strengths and weaknesses of each instrument, as well as profiles of the targeted farmers, to provide an understanding of the successes and limitations of blended approaches.

The analysis shows that, although there have been some major successes in recent years, the use of blended finance alone is not enough to prevent deforestation and promote sustainable activities at the necessary scale. The primary limiting factor to the success of blended instruments in the Cerrado is that the **financial incentives they offer are small in comparison to the economic gains that farmers can obtain through deforestation**. As a result, blended instruments must rely on a combination of financial incentives and additional economic features, such as flexible terms, to reach farmers who would otherwise be disposed to deforest.

Methodology

Through a combination of desk research and structured conversations with key stakeholders, CPI analysts identified nine initiatives leveraging blended structures for sustainable agriculture in the Cerrado. These nine initiatives are not exhaustive of all existing blended structures in the biome but instead represent different approaches to financing sustainable agriculture. A representative sample was reached once names of new instruments were no longer mentioned during stakeholder interviews via the snowball method.

Once the instruments were identified, CPI/PUC-Rio analysts held interviews with the implementors of these initiatives covering the structure of the instrument, the farmer profile the instrument targeted, key successes of the instrument, and barriers that were inhibiting success. Additionally, analysts interviewed other relevant stakeholders, including lawyers who work on structuring these instruments. In total, the study included eleven expert interviews on sustainable finance for agriculture in the Cerrado. The entities that shared their insights and experiences included AGRI3, Traive,TNC, Violet Capital, SIM Finance, Itaú Unibanco, and Pinheiro Neto Advogados.

Mapping of Blended-Finance Instruments

Table 2 summarizes nine blended-finance instruments at different stages of the funding lifecycle, from early fundraising through final close and retirement. Each instrument captured leverages a novel approach to direct capital toward projects that promote sustainable practices in the Cerrado. Given that agricultural production, and more specifically soybean cultivation, is a primary driver of deforestation and thus environmental degradation in the Cerrado (WWF 2019), most of the blended-finance instruments identified aim to incentivize farmers to limit their deforestation.

Seven of the nine instruments are active, meaning they are currently fundraising, deploying capital, or in the repayment phase, while the remaining two are retired. Almost all instruments deploy debt-based products except for one that provides guarantees. Among the debt instruments, four employ Agribusiness Receivables Certificates (*Certificados de Recebíveis do Agronegócio* – CRAs) as the primary investment vehicle, underscoring investor preference for this structure. Instruments range in size from roughly R$ 20 million to more than R$ 1.5 billion. While all instruments target agricultural activities in the Cerrado, only three focus exclusively on this biome, with the remainder operating across multiple geographies. All instruments use novel approaches beyond just offering competitive pricing to incentivize farmers to become more sustainable. The table provides a summary of the key approaches identified as being crucial to success and the primary barriers that blended finance faces today in the Cerrado.

Table 2. Key Blended-finance Instruments for Sustainable Agriculture in the Cerrado[22]

Instrument	Description	Farmer Profile	Strengths	Shortcomings
Responsible Commodities Facility (RCF) SIM Finance Status: Active; Fundraising & Deploying Capital	Aims to limit deforestation in the Cerrado by providing competitively priced credit to soybean producers through a simplified process. The Fund was launched in 2022 and has raised R$ 750 million to date, with roughly R$ 300 million in disbursements to producers in the latest round.	Provides financing to medium and large-scale farmers in the Cerrado with 2,000–10,000 hectares of land. Participating farmers must exceed Forest Code legal reserve requirements, with a portfolio target of maintaining at least 5% of farm area as native vegetation in addition to the statutory minimum. Farmers must also avoid internationally banned agrochemicals.	Leverages CRAs to address barriers that international investors face when deploying capital in Brazil. UK-based supermarkets and the Mobilizing Finance for Forests (MFF) program by Financierings-Maatschappij voor Ontwikkelingslanden (FMO) provide capital to the junior tranche.	Deployment has been slowed by difficulty sourcing a pipeline of farmers that meet the RCF's requirements. The availability of subordinated capital, which is essential for mobilizing capital at scale, is also constrained.
VERT Transition Bond JGP Asset, Agrogalaxy, and Vert Capital Status: Retired; Final Close & Deployed Capital	Aimed to accelerate the transition to bio-inputs and the recovery of degraded lands in the Amazon, Cerrado, and Atlantic Forest by providing credit to grain farmers. The Bond was launched in 2022 and disbursed R$ 19 million.	Provides financing to small- and medium-sized farmers with investment tickets of up to R$ 1 million and total farm areas up to 20,000 hectares. Eligible producers may cultivate soybeans, wheat, corn, or coffee and operate in the Amazon, Cerrado, or Atlantic Forest. Farmers must commit to zero deforestation after 2020 and refrain from using chemicals banned by the World Health Organization (WHO). Each borrower signs a Financial Rural Product Note (*Cédula de Produto Rural Financeira* - CPR-F) loan agreement.	Leverages a CRA structure to address barriers faced by international capital providers investing in Brazil. It was the first fund to apply the IFACC (Financial Innovation for the Amazon, Cerrado, and Chaco) framework, helping establish greater legitimacy for impact-focused investors.	The company that provided the inputs and originated the farmers, AgroGalaxy, filed for a related Chapter 11 insolvency procedure in 2024 due to rising interest rates. All loans were settled before bankruptcy was declared.
Green CRA Tech Produzindo Certo, Traive Finance and Gaia Impacto Status: Retired; Final Close & Deployed Capital	Aimed to limit deforestation by providing competitively priced credit to farmers through a simplified credit assessment process that integrated crop loss insurance provided by Munich RE. The Fund was launched in 2021 and deployed R$ 63.3 million.	Provided financing to small-to-medium-sized farmers with an average size of 5,000 hectares who had zero deforestation post-2022. Although the farmers could be from anywhere in Brazil, all farmers who received financing were in the Cerrado. The farmers had to use the financing to make improvements that increased inputs.	First CRA that met CBI standards and was certificated as a Green CRA. Included customized agriculture insurance from Munich RE that reduced risk for investors. Policies were priced according to the farmer's own history.	Retired in 2022 because of rising interest rates and changing macroeconomic conditions in Brazil. Questions of additionality remain, as the Green CRA could not directly prevent legally permitted deforestation, but it instead rewarded surplus legal reserve and compliance with the Forest Code.

22 All information captured in table had been verified with respective fund managers as of October 2025.

Instrument	Description	Farmer Profile	Strengths	Shortcomings
Reverte Pasture Recovery Program Syngenta, Banco Itaú BBA, and TNC in the Cerrado Status: Active; Fundraising & Deploying Capital	Aims to restore degraded pastureland in the Cerrado through financing inputs for soy and livestock production. Launched in 2021, the program and its financing facility have deployed R$ 1.6 billion to date, including more than R$ 1 billion in the Cerrado.	Provides financing to farmers in the Cerrado to support the adoption of degraded pastureland recovery practices. Farmers must meet eligibility and monitoring criteria aligned with the Forest Code, maintain zero legal deforestation after 2018 and zero illegal deforestation after 2008, and be existing Syngenta clients. There are no minimum or maximum farm size requirements.	Partners with agricultural value chain companies (e.g., Syngenta) to identify investable projects that other funds have struggled to access due to a lack of value chain connections. Backed by a corporate guarantee from Syngenta as first-loss capital, the fund offers a flexible 10-year loan with a 3-year grace period.	Farmers are required to purchase only Syngenta products through the program, which limits market competition.
AGRI3 AGRI3 & Rabobank Status: Active; Fundraising & Deploying Capital	Aims to reduce deforestation in Brazil by partnering with large financial institutions to provide guarantees and technical assistance. Examples include: Guaranteed a 10-year, approximately R$ 70 million loan from Rabobank to restore degraded pastureland to crop production in Goiás. Guaranteed a 10-year, approximately R$ 105 million loan from Rabobank to Locks Group for transitioning to regenerative agriculture in Mato Grosso. Guaranteed 10-year loans from Rabobank to large cattle farmers in the Cerrado and Amazon to incentivize degraded pastureland restoration.	Does not provide direct financing to farmers; instead, it partners with established financial institutions to guarantee financial products that serve farmers meeting agreed environmental, social, and impact eligibility criteria.	Leverages guarantee mechanisms to lower risk, extend loan tenors, and enhance financial viability, while utilizing existing financial institution networks to reach farmers.	Products guaranteed by AGRI3 sometimes struggle to prevent deforestation, as financial incentives to clear land remain strong despite the competitive rates AGRI3 offers.
Corn Ethanol Loan &Green & Fueling Sustainability (FS) Status: Active; Deployed Capital & Repayment	Aims to curb deforestation in Mato Grosso by providing a long-term corporate loan to FS to develop a deforestation-free corn and biomass supply chain. In 2022, FS received a US$ 30 million (approximately R$ 152 million) loan for this purpose.	FS sources corn from farmers in Mato Grosso who produce it as a secondary crop. Participating farmers must comply with the Forest Code and adopt enhanced geospatial monitoring systems to strengthen compliance.	Rather than working directly with producers, it engages value chain players (e.g., financial institutions) to adopt a broader supply chain approach, enabling replication across biofuel and animal feed value chains.	Farmers who are not suppliers to FS are ineligible for the follow-on benefits of &Green's corporate loan.

Instrument	Description	Farmer Profile	Strengths	Shortcomings
The Growth Next-Generation Agriculture (GAN) Fund Traive Finance, Folio, and Integral Investimentos Status: Active; Fundraising	Aims to accelerate the transition to regenerative agriculture by financing the working capital needs of companies producing, distributing, or commercializing bio-based inputs and other regenerative agriculture solutions. It has not yet deployed capital, with GAN being launched in 2025.	GAN provides financing indirectly through input providers and therefore only requires that farmers comply with the Forest Code. There are no specific size, crop, or regional criteria, though most beneficiaries are likely medium-sized soy farmers.	Addresses a critical market gap by providing working capital to suppliers of biological inputs and other regenerative agriculture solutions, enabling them to scale and expand offerings to farmers.	The Fund uses a Receivables Investment Fund (*Fundo de Investimento em Direitos Creditórios* – FIDC), which, unlike a CRA, does not have favorable tax treatment and can create hurdles for international investors. It does not impose any deforestation requirements beyond Forest Code standards, as it does not work directly with farmers.
Farmer First Clusters WBCSD, Soft Commodities Forum, and the Consumer Goods Forum (CGF) Forest Positive Coalition Status: Active; Fundraising & Deploying Capital	Aims to eliminate soy-driven deforestation and land conversion in the Cerrado by offering incentives to farmers producing deforestation- and conversion-free soy. Soft Commodities Forum (SCF) members have committed US$ 7.2 million (approximately R$ 38 million) for a three-year pilot, with the CGF Forest Positive Coalition (FPC) contributing US$ 5 million (approximately R$ 25 million) in co-funding through the Sustainable Landscapes Partnership.	Provides financial incentives and technical support to soy producers of all sizes through implementing partners. To date, investments have supported 237 farms ranging from 11 to 22,941 ha. Farmers participating in the initiative must comply with the Forest Code and commit to deforestation- and conversion-free soy production for one to three years.	Leverages key value chain players with established relationships with producers. A public-facing, collective action model is central to driving adoption and ensuring program success.	The current pilot relies heavily on up-front grant capital rather than scalable commercial finance. The Deforestation and Conversion Free (DCF) commitment is limited to three years, creating uncertainty for long-term forest protection.
Itaú's Biodiversity and Social Initiatives Bond IFC, IDB Invest, and Itaú Unibanco Status: Active; Deploying Capital	Aims to enhance biodiversity across Brazil's biomes, including the Cerrado, by expanding access to credit for sustainable projects. The US$ 250 million (approximately R$ 1.25 billion) Bond, issued in 2025, is split into two series: the first funds Syngenta's Reverte program, and the second invests in Itaú's micro, small, and medium enterprise (MSME) portfolio.	Funds farmers through Syngenta's Reverte program, which requires Forest Code compliance, adoption of regenerative practices, and Syngenta client status. The Bond's second series does not fund farmers directly but targets MSMEs.	Mobilizes substantial capital for a blended instrument by leveraging the success of Syngenta's Reverte program and Itaú's MSME portfolio. Employs International Capital Market Association (ICMA) green and social bond principles to attract development financial institution (DFI) investment.	Financed almost entirely by DFI capital, with up to US$ 200 million from the IFC and US$ 50 million from IDB Invest, and does not mobilize institutional investor capital despite the commercial credibility of Itaú Unibanco.

Approaches for Success

Competitive pricing is usually insufficient to incentivize farmers to engage in sustainable activities since unsustainable activities (e.g., deforestation) often offer much greater immediate economic gains. Blended instruments must deploy other forms of incentives to encourage sustainable practices. Fund managers reference leveraging the following approaches to go beyond pure financial incentives:

Financial Risk-Mitigation Mechanisms

Climate change is increasing crop-related risks for farmers in the Cerrado, with potential losses that cannot be easily compensated for through unsustainable activities like deforestation. Some blended instruments, including *Green CRA Tech* and *AGRI3*, use financial risk-mitigation mechanisms, including insurance and guarantees, that are responsive to growing climate risks and act as a hedge for farmers..

Simplified Credit Assessment Process

Traditional credit assessments for farmers in the Cerrado often involve long and prohibitively burdensome processes. Many blended instruments, including *GAN Fund* and the *RCF,* offer simplified credit assessments.

Flexible Loan Agreements

Loans offered by traditional commercial banks in Brazil are often rigid, with terms that do not always align with the needs of farmers. Some blended instruments, including the *Reverte Pasture Recovery Program*, provide more flexible terms with extended grace periods and earlier contract periods.

Alternative Revenue Streams

Relying on a limited number of revenue streams increases farmers' exposure to market volatility and climate risk. Initiatives, including the *Corn Ethanol Loan,* incentivize farmers to engage in sustainable activities by helping generate new revenue streams such as the sale of corn for biofuels.

Technical Assistance

Transitioning to sustainable agricultural activities such as regenerative farming practices often requires bespoke support tailored to specific farmers. Many blended instruments, including *AGRI3, Green CRA Tech, RCF* and the *GAN Fund* leverage technical assistance as a core value offering to encourage farmers to participate in sustainable activities.

Value Chain Partnerships

Value chain partnerships not only help with pipeline identification and development but also can serve as a necessary source of concessional financing for instruments. Forming partnerships with value chain players including input providers and agricultural retailers is essential for the success of many instruments, including the *RCF*, the *Reverte Pasture Recovery Program,* and *Itaú's Biodiversity and Social Initiatives Bond*.

Favorable Tax Treatment

International investors can often be deterred from investing in Brazil, given its relatively complex financial and tax system, which inhibits the ability of blended instruments to raise concessional capital. As a result, almost all the identified initiatives leverage CRAs, given their favorable tax treatment for international investors.

Impact Frameworks

Leveraging internationally certified impact frameworks can help blended instruments build impact investor confidence and secure concessional capital. Frameworks including CBI's Climate Bond Standard and the IFACC Framework were used by *Green CRA Tech* and the *VERT Transition Bond*, respectively. Additionally, *Itaú's Biodiversity and Social Initiatives Bond* aligns with ICMA's green and social bond principles.

Barriers to Success

Although blended instruments have had some success in incentivizing sustainable agricultural activities in the Cerrado, several hurdles limit their impact and scale. The analysis identified the following barriers hindering the success of the nine instruments:

Bankable Project Pipeline

Identifying a bankable project pipeline that meets eligibility requirements is a major challenge for several blended instruments, including *RCF* and *AGRI3*. Many farmers do not meet deforestation requirements or do not qualify as creditworthy. Potential solutions include working directly with value chain players to identify bankable projects and providing technical assistance to increase creditworthiness.

Deforestation-Free Premium

Value chain players and the larger commodity market are not yet willing to pay a significant premium for deforestation-free grains, limiting the financial incentives that blended instruments can offer. Potential solutions include working directly with value chain partners, as *Farmer First Clusters* has done with the World Business Council for Sustainable Development's Soft Commodities Forum.

Brazilian Interest Rates

The unaffordability and volatility of Brazilian interest rates severely limit the ability of blended instruments to incentivize sustainable agricultural activities in the Cerrado. *Green CRA Tech* and *VERT Transition Bond* have had to retire their value offerings due to interest rate volatility. Potential solutions include guarantees offered by funds like *AGRI3* but any significant change must come from federal-level policymakers and regulatory agencies.

Brazilian Foreign Investment Regulations

Although Brazil has one of the most developed capital markets in Latin America, it sometimes struggles to attract foreign investors who are unfamiliar with its financial system. Brazil has several requirements that are seen as burdensome to foreign investors, which limit the ability of blended vehicles to secure concessional capital. Potential solutions include the introduction of instruments that have favorable tax and regulatory treatment, like CRAs.

Farmer Size

Almost all of the nine blended instruments identified primarily provide financing to medium-sized farmers, but often do not reach small- or large-sized farmers. This is because small-scale farmers are often considered not bankable by the private sector,[23] and large-sized farmers can access competitive financing from commercial institutions instead of blended instruments. Potential solutions include using risk-mitigation mechanisms to make small-scale farmers bankable, as done by *Green CRA Tech,* or working directly with commercial banks, as the *Reverte Pasture Recovery* Program does.

Impact of Concessional Pricing

It is unclear if finance provided by blended instruments to encourage sustainable agriculture has the ability to change production techniques since many of the farmers receiving finance might have engaged in sustainable activities regardless of receiving these funds. Given the economic incentives around deforestation, some respondents question the extent to which a farmer would limit their deforestation by the competitive pricing offered through blended instruments alone.

23 Small-sized farming in Brazil (also referred as smallholders farming or family farming) has a precise characterization under Brazilian law. Essentially, smallholders farming is characterized by a small property (under 4 fiscal modules, i.e., a rural property area measure that varies across municipalities) and by the fact that farmers work in, manages, and has their income originated mostly from their small farms (Law n. 11.326/2006). Moreover, in terms of credit acquisition, more precise income limits might be applied to these smallholders. That is the case for the Central Bank of Brazil's MCR that limits smallholders farmers income characterization for credit acquisition to an annually family income threshold of R$ 500,000.

Improving Conditions for Blended Finance

1. Mainstream a combined approach that leverages enforcement, policy incentives, and finance.

While blended finance alone is not enough to curb deforestation and other unsustainable practices in the Cerrado, it can play a catalytic role in transitioning agricultural production if integrated into a coordinated approach that strengthens enforcement. Coordinated efforts allow for more effective targeted incentives that can support farmers in transitioning to more sustainable practices.

One example of a relevant initiative includes the Brazil Climate and Ecological Transformation Investment Platform (BIP), launched in 2024, that aims to link climate plans with investment opportunities. The BIP maps and prioritizes projects aligned with the government plans and identifies mechanisms to scale; convenes public and private sector investors, development finance institutions, and multilateral climate funds to expand domestic and international capital available; develops financing mechanisms and potential partnerships; raises awareness around investment barriers for the private sector; and, advances Brazil's development and climate finance priorities.[24]

2. Facilitate capital inflows through regulations and public policy to stimulate greater international capital to the agricultural sector.

International investors interested in financing sustainable practices such as deforestation-free agriculture in the Cerrado may be inhibited by Brazil's complex financial structure. CRAs are one of the most-used vehicles to finance sustainable practices, in part because they have favorable tax treatment and attract international investors. Additionally, investors face high foreign exchange risks that rely on hedging. Government support plays an important role in structuring the market.

Brazil has taken steps to address this challenge. In 2024, the government of Brazil, with support from the Inter-American Development Bank (IDB) and the United Kingdom's Foreign, Commonwealth & Development Office (FCDO), launched *Eco Invest Brasil,* which serves as a foreign capital mobilization and currency hedging program housed within Brazil's national climate fund, *Fundo Clima*. Using blended finance auctions, long-term derivatives, and catalytic credit lines, *Eco Invest* aims to help address currency mismatches that constrain foreign investment.

3. Increase collaboration with value chain partners to strengthen incentives that prevent deforestation and other practices leading to environmental degradation.

Actors from across the agricultural value chain, including input providers and grain traders, must do more to promote sustainable activities. These actors can create powerful incentives as the primary financiers and purchasers of agricultural products. For example, deforestation premiums paid for sustainably produced grains can be critical for preventing deforestation.

4. Promote greater transparency to enable comparability with rural credit and support data-intensive analysis.

More producer-level information must be disclosed to determine whether low demand for sustainable practices stems from limited producer interest, financial instrument design, or ineffective credit implementation in improving environmental outcomes and reducing GHG emissions. This includes data on producer location, credit amounts, financed practices, and related attributes. Fund managers should also align their disclosures with publicly available rural credit data to improve comparability and help clarify the degree to which alternative instruments complement traditional agricultural financing.

24 BNDES acts as the secretariat for BIP, managing the day-to-day operations. Learn more at: Ministry of Finance (MF). *Brazil Climate and Ecological Transformation Investment Platform*, nd. bit.ly/40ED5yY.

Conclusion

This report finds that while significant public resources are already directed toward the Cerrado—particularly in MATOPIBA—the current sustainable finance architecture remains constrained by limited scale, insufficient transparency, concentration among larger producers and institutions, and uneven territorial coverage. As a result, financial flows are not yet fully aligned with the objective of decoupling agricultural growth from deforestation. Strengthening this alignment will be essential for achieving Brazil's long-term sustainability and climate goals.

Three priorities emerge: **First, improving transparency and sustainability classification frameworks is fundamental.** Strengthening reporting systems and advancing instruments such as the BST can clarify how taxpayer-supported credit is allocated and ensure that subsidies are effectively linked to verified sustainable practices—an especially urgent need in high-pressure regions like MATOPIBA. Enhanced transparency would also help reveal a potentially larger share of credit that already supports sustainable practices but is not currently identified as such.

Second, expanding the role of sustainable credit within the broader rural finance system is critical. Given the extensive fiscal support embedded in rural credit through subsidies and tax expenditures, the federal government has a strategic opportunity to sharpen incentives by increasing the share of financing tied to sustainability outcomes. A more coherent and targeted credit architecture can accelerate the adoption of sustainable practices while supporting productivity gains on already converted land.

Finally, leveraging financial innovation will be essential to mobilize additional capital and broaden access. Blended finance mechanisms and other innovative structures can complement public credit by crowding in private investment, diversifying funding sources, and reaching underserved producers. Scaling these approaches—while incorporating lessons from existing instruments—will be key to building a more inclusive, competitive, and effective financing ecosystem for sustainable agriculture in the Cerrado.

Addressing these priorities can strengthen the role of finance as a central lever for sustainable land use, ensuring that agricultural expansion in the Cerrado occurs within environmental limits rather than at their expense.

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