

Opinion article

Brazil in the G20: Leveraging climate finance for sustainable agriculture

Presidência do Brasil no G20: Oportunidades para mobilizar financiamento climático para agricultura sustentável

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Abstract

Brazil's upcoming leadership roles in international forums, notably the G20 presidency, offer an opportunity to drive progress in mobilizing resources for climate finance and sustainable development, especially through nature-based solutions (NBS) by prioritizing finance towards climate-resilient and low-carbon agriculture. Brazil's expertise in leveraging private finance for low-carbon agriculture can provide ways for shifting towards a low-carbon economy, especially in sustainable food production and energy-intensive industries. This article evaluates key findings from Brazil's national climate finance landscape on land use and, discusses opportunities within the G20 for leveraging climate finance in the agricultural and forest sector through policy and innovation.

Keywords: Brazil. Climate finance. G20. Land use. Sustainable agriculture.

Resumo

O papel de liderança que o Brasil assumirá em fóruns internacionais nos próximos anos, como a Presidência do G20, se apresenta como uma oportunidade para impulsionar a mobilização de recursos para financiamento climático e desenvolvimento sustentável, especialmente por meio de soluções baseadas na natureza (SBN) que priorizem o financiamento para agricultura resiliente ao clima e de baixo carbono. A expertise do Brasil, a partir de políticas públicas, em alavancar financiamento privado para agricultura de baixo carbono pode contribuir com a transição para uma economia de baixo carbono, especialmente na produção de alimentos sustentáveis e indústrias intensivas em energia. Este artigo apresenta o cenário doméstico de financiamento climático para uso da terra no Brasil e discute oportunidades dentro do G20 para alavancar os fluxos financeiros alinhados a objetivos climáticos no setor agropecuário e de florestas por meio de políticas e inovação.

Palavras-chave: Brasil. Financiamento climático. G20. Uso da terra. Agropecuária sustentável.

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Introduction

Climate change has become a priority agenda for governments all over the world. The window of opportunity to modify the carbon emission trajectory to achieve the Paris Agreement and limit global temperature rise by 1.5C is rapidly running out. Efforts to mitigate and adapt to climate change require global coordination, policy instruments to guide economies, and investments in a sustainable development path. Mobilizing sufficient resources and effectively allocating them to priority areas is crucial in supporting the transition to a low-carbon economy and fostering resilience to climate-related risks.

The good news is that average annual global climate finance flows almost doubled in the last decade, with a cumulative USD 4.8 trillion in climate finance committed between 2011-2020 (Buchner et al., 2022). In 2021/2022, Climate Policy Initiative (CPI) tracked USD 1.27 trillion in average annual global climate flows (Buchner et al., 2023). However, despite the increase, current investment levels are still significantly below the estimated needs, especially for emerging markets and developing countries. In the average scenario, we need between USD 5.4 trillion and USD 11.7 trillion in annual finance flows by 2030 to avoid the worst impacts of climate change (Buchner et al., 2023).

In this context, Brazil's leadership role in international forums, through the G20, BRICS, and COP30 presidencies in the next three years should allow the country to drive progress in climate finance and sustainable development.

Under the G20, the climate agenda holds a prominent role, both under the Sherpa track with the Task Force for the Global Mobilization against Climate Change and under the Finance track, where discussions on sustainable finance and international financial architecture gain momentum to promote low carbon and resilient economies.

Brazil now has a unique opportunity to direct the climate-action agenda to bolster climate finance and investments for both mitigation and adaptation. By championing initiatives that facilitate access to international climate finance and promote nature-based solutions (NBS), Brazil can not only foster advances in emerging economies, but also set an example for global sustainable development.

Despite a focus on NBS, Brazil's G20 Presidency has not explicitly addressed agricultural activities as a priority. Discussions on agriculture have been gaining ground in international climate negotiations in recent years, acknowledging its contribution as a third of global greenhouse gas emissions and recognizing a significant need for investment in building resilience and increasing climate adaptation in rural areas. During the COP 28 in Dubai last December, agriculture and food systems gained prominence from the perspective of adaptation and food security (Chiavari & Cárcamo, 2023). However, COP 28 was unable to give clear instructions to governments on how funding can be increased to enable adaptation and build resilience, in particular for the support of smallholders and family farmers. In addition, the UN climate negotiations did not reach a consensus on the recommendations to reduce emissions and change practices in the sector.

The G20 presents an opportunity for holding discussions on how to make funding available to better align climate, food systems, and nature objectives. Brazil should be well positioned to share its experience on the use of public policy to direct private finance and investments towards low-carbon agriculture, and the use of blended finance instruments. This is particularly relevant ahead of COP30 in Brazil, when countries will submit their new Nationally Determined Contributions (NDCs) and National Adaptation Plans, which should address agriculture and land use issues.

This article evaluates key findings from Brazil's national climate finance landscape on land use and discusses opportunities within the G20 for leveraging climate finance in the agricultural sector through policy and innovation.

Landscape of climate finance for land use in Brazil

In Brazil, activities related to land use play a central role in decarbonizing the economy, as agriculture and deforestation together account for almost three quarters of the country's greenhouse gas (GHG) emissions (SEEG, 2021). As such, finance strategies must be developed to promote a transition to low-carbon agriculture and forest protection.

To understand climate finance for land use in Brazil, researchers from CPI conducted a comprehensive tracking exercise to quantify financial flows directed towards agriculture and forests aligned with climate goals.

The Landscape identified flows coming from public and private sources, both domestically and internationally. It also examines the disbursement channels, financial instruments, financed sub-sectors, and climate objectives of the flows (Figure 1). This work quantified an average of US\$ 6.6 billion per year channeled towards climate finance for land use in Brazil, between 2015 and 2020, with 95% of the finance coming from domestic sources. During this time, financial flows increased from US\$ 6.6 billion in 2015 to US\$ 7.1 billion in 2020, representing a growth of 65% in Brazilian reais (Chiavari et al., 2023).

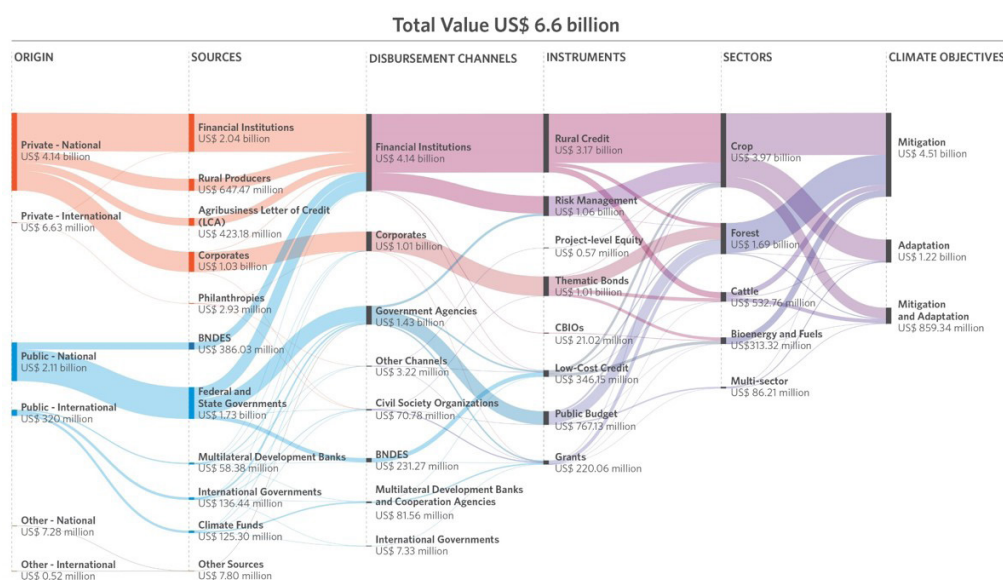


Figure 1. Landscape of Climate Finance for Land Use in Brazil, 2015-2020.

Note: the values refer to the average amount of financial flows in Brazilian Real (R\$) during the analyzed period, deflated by the IPCA using December 2020 as reference. The values were converted into United States Dollar (US\$), according to the average exchange rate for the corresponding year, as provided by the Central Bank of Brazil (Banco Central do Brasil – BCB). **Source:** CPI/PUC-RIO with data from SICOR/BCB, SIOP/MPO, MAPA, SES/SUSEP, MMA, BNDES, MME, B3, NINT, OECD-DAC, and IDB (2023).

The climate finance ecosystem for land use in Brazil is complex and involves diverse stakeholders and institutional arrangements. CPI's evaluation organizes this ecosystem into five areas: agricultural credit policy, agricultural risk management, government expenditures, financial markets, and international cooperation and development. Key findings under each area include:

- **Agricultural credit policy plays a central role in Brazil's strategy to incentivize sustainable agriculture and combat deforestation.** Rural credit is the main source of climate finance for the land use sector in Brazil, with US\$ 3.2 billion/year identified as aligned with mitigation and/or adaptation objectives. This amount, however, corresponds to only 8% of the total volume of rural credit for finance, investment, and industrialization purposes.
- **The Brazilian Agricultural Plan should aim to enhance productivity while safeguarding the environment by offering improved credit conditions to producers adopting low-**



carbon practices. It's crucial to ensure that no credit is extended to properties involved in illegal deforestation. In recent years, the rural credit policy has been introducing significant measures to promote socio-environmental aspects in agricultural production and to prevent illegalities. However, there are still key definitions and gaps that need addressing for the policy to facilitate the transition to sustainable agriculture and protect native vegetation.

- **Agricultural risk management instruments constitute the main tool for climate adaptation** (US\$ 1 billion/year) being vital for mitigating climate-related risks faced by rural producers. Brazilian agriculture has suffered the consequences of increasingly frequent extreme events caused by climate change. However, small producers, poorer regions and most crops are currently underserved and expanding insurance coverage remains challenging. Public policy, such as subsidies for rural insurance premiums like the Rural Insurance Premium Subsidy Program (Programa de Subvenção ao Prêmio de Seguro Rural – PSR), has the potential to enhance agricultural risk management. Additionally, subsidies should be targeted towards producers engaged in sustainable agriculture (Souza et al., 2023).
- **Government expenditures play a crucial role in funding policies to conserve forests and promote sustainable land use practices.** Federal public budget expenditures for land use with climate mitigation and adaptation objectives totaled, on average, US\$ 767 million/year between 2015 and 2020, equivalent to 11% of the total tracked for that period. Sustained public investment is essential for combating deforestation and advancing climate resilience. Ensuring the continuity of public policy is crucial for government programs to yield lasting and impactful results.
- **Financial markets offer opportunities for mobilizing private finance at scale.** Thematic bond issuances amounted to US\$ 1 billion/year, or 16% of finance tracked between 2015 and 2020. Also relevant was Brazilian Development Bank's (BNDES) approval of US\$ 242 million/year for climate finance via low-cost credit in that period. An additional US\$ 126 million in Decarbonization Credits (CBIOs) were traded in 2020, the first year they were issued. Although thematic bond issuances and low-cost credit facilities are increasingly being utilized to finance climate-aligned projects, challenges remain in tracking private sector contributions. In the context of strengthening the Environmental, Social, and Governance (ESG) agenda, improving disclosure requirements is necessary to understand project implementation and operation better.
- **International cooperation and development finance are far below their full potential, being mainly channeled via grants and mostly earmarked for the forest sector.** They provided US\$ 320 million annually for climate finance in Brazil's land use sector, 5% of climate-aligned financial flows. The primary sources were international governments (US\$ 136 million/year) and climate funds (US\$ 125 million/year), with a focus on the Amazon Fund (US\$ 53 million/year). Much of the international finance was allocated to public policies related to deforestation reduction, protected areas, environmental and land regularization, and territorial planning.

Opportunities for leveraging climate finance for sustainable agriculture through Brazil's leadership in the G20

Brazil is well-placed to provide ways for shifting towards a low-carbon economy, especially in sustainable food production and energy-intensive industries. Fulfilling this potential requires substantial investments. In addition, recent work has also shown the potential of tropical forests in capturing carbon from the atmosphere, which would involve additional financial flows.

Currently, through a global dialogue platform, Brazil's G20 presidency can accelerate action and drive sustainable agriculture on a global scale. G20 financial discussions on climate change can be a platform to set a climate finance agenda that includes sustainable agriculture during Brazil's G20 tenure.

Brazil could share its experience financing sustainable agriculture and help identifying topics of interest of other G20 member countries, including:



- **Addressing challenges for mobilizing private climate finance at scale:** Public finance will not be enough to leverage sustainable agricultural practices. In Brazil, between 2015 and 2020, there was a 39% drop in real terms in climate finance channeled via the public budget to land use, while thematic bonds increased almost fourfold. The volume of resources raised via this instrument, however, still corresponds to only a small portion of traditional capital market finance. In Brazil, thematic bonds were used to raise finance mainly for the forest sector and, more recently, for the cattle sector. Through the G20, Brazil could better understand the obstacles for channeling finance towards sustainable agriculture via thematic bonds and other financial market instruments and identify how to address them. Brazil has a significant potential to promote sustainable agricultural practices and advance the conservation and restoration of forests, presenting a compelling opportunity to attract private investment. Specifically, the carbon market stands out as a crucial avenue for financing this agenda.
- **Leveraging the role of the public sector in mobilizing private finance through public policies:** In Brazil, the public sector is relevant not only as a source of climate finance for land use through the federal public budget, but also in mobilizing private finance. A significant portion of the private finance is, indeed, mobilized by public policies. This is particularly the case for the rural credit, in which the Brazilian agricultural policy requires financial institutions to allocate part of their funds to certain credit lines. It is also the case for CBIOs Decarbonization Credit, established by the National Policy for Biofuels to increase the use of renewable fuels in the Brazilian transport grid, as distributors that sell fuel are mandated to reduce CO₂ emissions through the purchase of these credits. Identifying other experiences of G20 member countries that have used public policies to encourage private finance and their impacts would be particularly useful.
- **Promoting measures to increase climate finance flows for adaptation in the rural sector:** In a context where rural producers are increasingly impacted by extreme weather events, adaptation actions have become necessary to manage risk and increase the resilience of agricultural activities. However, in Brazil, 68% of financial flows relevant to climate finance for land use are associated with mitigation actions, while 19% are geared towards adaptation and 13% have both mitigation and adaptation objectives. Increasing climate investments in adaptation and resilience in the land use sector requires identifying the most suited financing solutions, building strong business cases, piloting, and demonstrating their profitability. Collecting examples of measures directed towards these priorities from G20 member countries would provide a valuable resource as countries aim to increase investment in adaptation.
- **Eliminating barriers to attract more international finance to sustainable agriculture:** International finance has been mostly directed towards public policies and strategies aimed at reducing deforestation and preserving protected areas. To further attract international climate finance to Brazil, it is necessary for the country to implement a robust and long-term government policy addressing environmental and climate concerns, supported by clear guidelines and ambitious targets. This commitment should encompass achieving zero deforestation and swiftly transitioning to a low-carbon agriculture. At the G20, international financial actors also play a role in addressing barriers that hinder the mobilization of international resources for emerging markets and developing countries.

Conclusion: a call to action for climate finance

As Brazil takes a leadership role in international forums like the G20, BRICS, and COP30, it holds a unique opportunity to advance sustainable development goals. By championing initiatives that facilitate access to international climate funds, mobilize private investment, and scale up NBS, Brazil can not only drive progress in emerging economies but also set an example for sustainable development on a global scale. Brazil, with its vast natural resources and position as a global agricultural powerhouse, has an opportunity to explicitly address agricultural activities as a priority, addressing critical funding needs to enable adaptation, build resilience, and reduce emissions in the sector. This is particularly important in the roadmap to COP 30, where the alignment of climate, food systems, and nature will be at the forefront of the negotiations.



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Conflict of interest

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