



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 14-Apr-2022 | Report No: PIDC34077



BASIC INFORMATION

A. Basic Project Data

Country Brazil	Project ID P178888	Parent Project ID (if any)	Project Name Brazil Climate Finance Project (P178888)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Jun 10, 2022	Estimated Board Date Aug 01, 2022	Practice Area (Lead) Finance, Competitiveness and Innovation
Financing Instrument Investment Project Financing	Borrower(s) Banco do Brasil	Implementing Agency Banco do Brasil	

Proposed Development Objective(s)

To support the expansion of sustainability-linked finance for mitigation and strengthen capacity to access carbon credit markets in Brazil.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	500.00
Total Financing	500.00
of which IBRD/IDA	500.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	500.00
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Environmental and Social Risk Classification
Substantial

Concept Review Decision
Track II-The review did authorize the preparation to continue



Other Decision (as needed)

B. Introduction and Context

Country Context

Brazil reached upper-middle income status with a resource-based economic model that contributed to the degradation of its forests and environmental resources. Development in Brazil over the past two decades has benefited from growth in the agriculture and extraction sectors,¹ while manufacturing has declined. In 2000, agriculture and extractive industries accounted for 9 percent and 7 percent of total exports, respectively. By 2020, these sectors represented 23 percent and 23 percent of exports. This model, which reflects a legacy of import substitution and reliance on commodity exports, is straining the country's natural resources and is unlikely to deliver the rapid growth needed to reach high-income status. Brazil needs to foster growth and inclusion through higher productivity but has been struggling to do so, especially beyond its resource sectors. A more productivity-focused and less resource-intensive economic model would boost growth and lessen pressures on land-based natural resources. More rapid and inclusive growth would also boost resilience to current and future climate risks by making populations more able to adapt and cope with climate impacts.

Brazil has significant potential to become a global leader in the transition to a low-carbon economy. Brazil is a critical player for mitigating global climate change in view of its size and potential for carbon removal. Its emissions profile, which is dominated by agriculture and forestry, differs from that of other large economies that is dominated by the carbon footprint of the energy sector.² This is because Brazil is home to 60 percent of the world's largest rainforest, the Amazon, covering about 50 percent of the country's territory. Moreover, renewable energy accounts for almost 50 percent of the Brazilian energy matrix and more than 80 percent of its electricity matrix. These characteristics not only differentiate Brazil but also offer enormous potential in transitioning to a low carbon economy if paired with the right policy and institutional context and access to capital to finance the transition.

Yet, the country faces a growing disconnect between its climate commitments and outcomes. Brazil set a nationally determined contribution (NDC) target for a 50 percent reduction in GHG emissions³ by 2030 and carbon neutrality (net-zero) by 2050. Yet, its carbon footprint has been growing over the past ten years and it remains the world's seventh top emitter, contributing 2.9 percent of global net GHG emissions in 2019.⁴ In 2020, Brazil's net emissions grew by 16 percent (compared to the average of the previous three years) driven by the rapid emissions increase in land use change and forestry (155 percent of the total increase). Increased deforestation rates in the Amazon, Cerrado and other biomes, undermining their potential as global carbon sinks, are of local, regional, and global concern.⁵ These outcomes are observed despite Brazil having strengthened its institutional and legal frameworks. Brazil adopted the National Climate

¹ Agriculture grew by approximately 97 percent since 2000, making up 6.8 percent of the Brazilian 2020 gross domestic product (GDP), with agribusiness as a whole contributing to approximately 20 percent of the Brazilian GDP and 16.2 percent of total employment. Likewise, the extractive industry grew 87.9 percent since 2000. Source: Brazil CCDR (forthcoming).

² The sectors with the largest shares of GHG emissions in Brazil in 2020 were land use change and forestry (46%), agriculture (28%), and energy (18%). Source: https://plataforma.seeg.eco.br/total_emission

³ From 2005 levels.

⁴ The top eight global GHG emitters are (by share of global GHG emissions): China (23.9%), USA (11.8%), India (6.7%), EU-27 (6.7%), Russia (4.1%), Indonesia (3.5%), Brazil (2.9%), Japan (2.4%). Source: Climate Watch <https://www.climatewatchdata.org/>

⁵ Based on satellite data monitoring by Brazil's National Institute of Space Research from August 2020 to July 2021.



Change Policy in 2009 as the cornerstone and overarching legal framework for climate change mitigation and adaptation.⁶ Critically, Brazil adopted the Forest Code⁷ in 2012 as an integral part of the country's climate strategy given the contribution of deforestation to Brazil carbon profile. It constitutes one of the most advanced and stringent forest regulations in the world. But significant challenges persist in terms of weak implementation and enforcement, as reflected in the growing rate of deforestation in recent years.

In this context, urgent action is required to accelerate mitigation outcomes, including by complementing public interventions with private solutions and financing if Brazil is to meet its NDCs. The most recent estimates of the cost of meeting Brazil's NDCs stand at US\$1.4 trillion between 2016 and 2030, equivalent to US\$100 billion (or about 7 percent of GDP) per year.⁸ Continued progress in strengthening institutions and enforcing laws to accelerate the climate transition is critical. But these figures also underline the need for a sharp acceleration in market-based financing and more robust climate finance markets if Brazil is to meet the costs of this process, especially given a more constrained fiscal setting post-COVID-19.

Sectoral and Institutional Context

Globally and in Brazil, financial institutions are channeling more resources to green and climate-related activities through a range of financial products, including sustainability-linked financing. Green "use of proceeds" loans or bonds that channel resources to specific uses that are consistent with a green taxonomy have been the primary instrument used in climate finance markets in recent years.⁹ These instruments can be characterized as "output-based" in that they track the application of the resources to specific projects undertaken by borrowers, rather than results or outcomes achieved. Since 2019, the global climate finance market has expanded its toolkit to introduce outcome-based financing instruments known as sustainability-linked loans or bonds. Unlike "use of proceeds" instruments, sustainability-linked financing instruments are "outcome-based" in that they track the achievement of results through sustainability performance targets that pertain to the overarching carbon footprint¹⁰ of the borrowing company's, not just of a specific project. Resources raised through these instruments could go to general corporate purposes, but the terms of the financing are tied to the achievement of these targets, with coupon/interest rate "step-ups" (or "step-downs")¹¹ depending on performance. In this way, sustainability-linked instruments aim to encourage the issuer or borrower to adapt their business model, track and achieve results at the company level, as opposed to the project level.

Even though the sustainability-linked mechanism is gaining popularity among Brazilian issuers, the instrument is largely serving large firms and best practices have not been evenly applied, potentially setting weak market benchmarks. To date, sustainability-linked deals in Brazil have mostly benefited larger companies in a few industries (mainly renewables and paper and pulp),¹² and have been limited to Scope 1 and 2 emissions.¹³ In addition, international best practices such

⁶ The National Plan on Climate Change (Plano Clima) was established together with the National Climate Change Policy, as an instrument to support its implementation.

⁷ Native Vegetation Protection Law established by the Law 12.651/2012.

⁸ Source: IFC, 2016. By 2030, the financing gap for achieving net-zero emissions is estimated at US\$ 1.3 trillion for energy, transportation, building, waste management, and industrial energy efficiency sectors. An additional US\$163 billion for agriculture, of which \$78 billion in livestock-related activities is obtained from Climate Bonds Initiative, 2020.

⁹ See annex 1 for an overview of Brazil's green finance market.

¹⁰ Sustainability targets can relate to environmental, social and governance outcomes. In the case of this projects they will relate to mitigation outcomes.

¹¹ Step-ups are increases in the coupon/ interest rates whereas step-downs are decreases.

¹² Six of the ten international deals were benchmark-sized, from companies such as Movida (US\$500m), Simpar (US\$625m), Klabin (US\$500m) and Suzano (US\$500, US\$750m, US\$1.6bn).

¹³ Scope 1 emissions cover direct emissions from a companies owned or controlled resources. Scope 2 emissions cover indirect emissions from the use of purchased electricity, steam, heating and cooling consumed by the company. Scope 3 emissions include all other indirect emissions that occur in a company's value chain.



as independent external reviews (second party opinion), have not been consistently applied. Only a third of sustainability-linked deals received an external review.¹⁴ This raises concern around the lack of transparency with performance-linked instruments. Developing this financing tool in a manner that promotes integrity and high-quality outcomes will require efforts to raise the transparency and quality assurance standards of the market through strong benchmark deals. In addition to this, the Brazilian market has used sustainability-linked instruments to target Scope 3 emissions, which account for the bulk of the carbon footprint of anchor firms in key industries such as livestock, agriculture and forestry, in very few cases. Therefore, developing solutions to generate results through the supply chains will help to extend sustainability-linked finance to Scope 3 emissions and deepen mitigation outcomes.

Brazil's carbon credit market.¹⁵

The carbon market adds to the mix of financing instruments for reaching net-zero emissions. Carbon credits are not a substitute for reducing emissions but can be an important tool to offset emissions that have not been eliminated yet on the path to net zero. Carbon credit markets help finance companies that are investing in emission reductions or removals and support firms that have a credible corporate climate commitment in compensating for emissions that they have not been able to eliminate yet, for example, due to prohibitive costs or technological limitations. They could help the country to unlock investments in emissions reductions and removal projects and technologies, meet its NDC cost-effectively while promoting economic development, and support domestic companies in reaching net-zero commitments in a cost-effective manner.

Brazil's past experience with international carbon markets was mainly through its participation in the Clean Development Mechanism (CDM), established under the Kyoto Protocol. To date, Brazil's engagement with carbon markets has been on the voluntary markets. Brazil was the fourth largest global seller of "Certified Emission Reductions"¹⁶ and ranked as the third largest host country for CDM projects. Since then, however, the global financial crisis of 2008 stirred the policy discussions away from climate-related aspects and contributed to the collapse of the international demand for carbon credits after 2012.¹⁷ This, combined with the delay in the overarching definitions of a global market under the United Nations Framework Convention on Climate Change (UNFCCC), led to a substantive decline in the international carbon market dialogue until 2015 and halted the prospects for the development of a carbon market in Brazil at that time.

More recently, Brazil has been an active player in the current revival of carbon markets, with a growing share in global issuances. Brazil's carbon credit issuances have been growing steadily, increasing from 1.3 percent of global issuances in 2018 to 11.4 percent by end 2021. The bulk of the growth stems from activities that reduce emissions from deforestation and forest degradation (REDD+). This trend corresponds to Brazil's net emission profile, which sees growth in emissions driven by land-use change and deforestation and indicates the potential for further growth in this sector as well as others such as livestock waste management, amongst others.

A more rapid expansion of the Brazilian carbon market could be held back by the complex and lengthy process for creating carbon credits, which also raises integrity risks if not well managed. The process involves the application of specialized methodologies to assess mitigation outcomes and performance targets and to monitor, report, and verify compliance with internationally agreed standards. The complexity of the carbon credit creation process and its degree of industry-level specialization creates informational asymmetries and raises transaction and implementation costs for interested firms. If the carbon credit creation process is not well managed, it can raise credibility risks (i.e., concerns about "greenwashing") affecting the market's integrity and liquidity.

¹⁴ [CBI \(2021\). Agriculture Sustainable Finance State of the Market, Brazil briefing paper.](#)

¹⁵ See annex 2 for more information on the trends and challenges of carbon markets.

¹⁶ A certified emission reduction is an emissions unit (or carbon credit) generated from a clean development mechanism project activity.

¹⁷ Under the scopes of both the Kyoto Protocol and the European Union ETS (EU ETS).



Carbon credit trading poses further challenges as it takes place within a highly heterogeneous and fragmented global market, adding transaction costs and uncertainty on the price outlook for the carbon credits. The Paris Agreement introduced a bottom-up approach for addressing climate change by recognizing that countries may engage in carbon markets to meet their NDCs and may promote the development of diverse voluntary carbon markets driven by non-state actors. The fragmentation in carbon credit trading rules and institutions leads to a wide price dispersion, adding uncertainty to the price outlook for carbon credit sellers.

Relationship to CPF

The project is closely aligned with the World Bank Group’s Brazil Country Partnership Framework (CPF) for FY2018 – FY2023, discussed by the Board of Executive Directors in July 2017. The project directly contributes to the third focus area of the CPF, which aims to address longer-term issues of equitable and sustainable development, including supporting Brazil’s NDC under the Paris Agreement. Under this focus area, the CPF envisages the development of economic instruments to reduce carbon emissions across economic sectors in Brazil. The project will also contribute to the CPF second focus area that seeks to improve credit availability and allocation by tackling the developmental challenge of limited access to long-term finance for businesses (especially for SMEs).

C. Proposed Development Objective

To support Brazil’s achievement of its mitigation outcomes through the expansion of sustainability-linked finance and strengthening capacity to access carbon credit markets.

Key Results

1. GHG emission reductions achieved through project financed activities as measured by an independent third party.
2. Carbon credits registered in an internationally recognized registry through project financed activities.
3. Total amount of capital leveraged from domestic and international sources in sustainability-linked finance for mitigation under the project.

D. Concept Description

This is a financial intermediary (FI) project where the World Bank is supporting a credit entity (BB) to fund clearly defined FI subprojects.¹⁸ It seeks to offer an integrated package of financing and TA to attract investors and firms committed to achieve mitigation outcomes and interested in accessing sustainability-linked finance and carbon markets.

The project comprises two components: (1) a financing component to expand access to sustainability-linked financing and (2) a technical assistance (TA) component to develop more robust carbon markets. The project seeks to pilot a “one-stop shop” climate finance solution, in partnership with *Banco do Brasil (BB)*.

Component 1: Expanding access to sustainability-linked finance.¹⁹ This component aims to support Brazil’s climate mitigation outcomes through the expansion of sustainability-linked finance:

¹⁸ Project preparation follows the guidance in OPSPQ “Investment Project Financing—FI Financing” of March 2016.

¹⁹ The project could also adopt other outcome-linked financing instruments as relevant based on market developments.



Subcomponent 1a: Sustainability-Linked Credit Line (IBRD US\$ 400 million). BB will use the resources of this subcomponent to originate sustainability-linked loans for companies that have committed to reduce their carbon footprint. Unlike “use of proceeds” instruments, sustainability-linked financing instruments are “outcome-based” in that they track the achievement of mitigation results and have a broad scope in that they pertain to the borrowing company’s overarching carbon footprint, not just a specific project. Resources raised through these instruments could go to general corporate purposes, but the terms of the financing are tied to the achievement of mitigation targets. Mitigation outcomes will be measured through sustainability performance targets (SPTs) following internationally accepted market standards and for which accredited verification agencies can provide high-quality independent review. Each borrower would undergo ex-ante independent third-party validation of the loan’s potential for climate mitigation and the alignment of the proposed targets with the goals of the Paris Agreement, including that mitigation outcomes are additional, permanent, and not double-counted. BB will support interested borrowers to get carbon credit certifications and will offer a digital solution to link sellers and buyers (see Subcomponent 2b). The sale of carbon credits could reduce the borrowers’ all-in cost of the loan.

Subcomponent 1b: Pilot Climate Debt Fund (IBRD US\$ 98 million). This subcomponent seeks to pilot a Climate Debt Fund (CDF) that will mobilize private capital beyond Subcomponent 1a in order to expand sustainability-linked finance in the broader economy. Instruments eligible for investment by the pilot CDF will include debt securities issued by Brazilian entities that contain commitments to climate mitigation outcomes as measured by SPTs that conform to internationally accepted market standards and for which accredited third parties will provide high-quality independent review as under Subcomponent 1a. BB will seed the CDF using IBRD loan proceeds of this subcomponent and will increase the CDF size by marketing it to other domestic and international investors whose investment objectives are aligned with those of the CDF.²⁰ The CDF’s eligible securities will include BRL-denominated bonds issued by eligible Brazilian corporates and securitization instruments structured and issued by domestic financial intermediaries and backed by assets of eligible Brazilian companies. It is expected that BB will securitize some of the loan portfolio that it will originate under Subcomponent 1a.

Component 2: Technical assistance (IBRD US\$ 2 million plus an estimated US\$2 million by Banco do Brasil). This component would provide technical assistance to BB to develop solutions that reduce the high transaction costs of creating high-quality carbon credits and to increase access to carbon credit markets.

Subcomponent 2a: TA supporting carbon credit creation. The project proposes to simplify and raise the integrity of the carbon credit creation process by supporting BB to provide a **one-stop-shop** for the technical assistance needs of participating firms (complementing the financing component), including:

- **Establishing a cadre of service providers that are aligned with predefined standards set by the project.** The project will support BB in selecting internationally agreed standards and industry-specific methodologies for climate mitigation performance targets and monitoring, reporting, and verification (MRV) systems.²¹ It will also support BB in selecting and accrediting a cadre of service providers and accredited third party verification entities to assist companies with designing, validating, monitoring, reporting and verifying projects for carbon credit generation, consistent with the project’s standards.

²⁰ The IFC cannot provide a direct loan to *Banco do Brasil*, since it is a state-owned entity. Potential IFC entry points in this project include debt and equity financing and advisory support. IFC may also syndicate carbon-credit linked loans, structure lending backed by carbon assets, invest in wholesale funds for storing and trading carbon assets, or invest in funds specializing in disruptive technologies being developed by firms that will service Brazil’s carbon value chain. MIGA potential entry point includes credit enhancement of the investment profile of the climate fund.

²¹ This includes compliance with a recognized taxonomy and validated methodologies, requirement for independent ex-ante and ex-post validation of project design, adopting an additional layer of quality assurance as needed.



- **Providing standardized documentation to facilitate project transactions.** The project will support BB to develop and standardize documents, including template terms of reference and contracts with service providers, and contracting templates for emission reduction purchase agreements (ERPAs). For example, a single project design document could cover multiple distributed projects and MRV could be standardized across projects for simplicity and reduction of transaction costs. The technical assistance will seek to reduce administrative burdens on BB’s clients and uncertainty regarding how to engage in project development and purchase agreements.
- **Adopting new technologies for end-to-end digitalization of carbon asset generation.** Significant technological progress has been made in offering digital services that can streamline processes and lower costs for the generation of carbon credits. These systems have the potential to reduce the time required for data collection, increase the accuracy of reporting, lower reporting and third-party verification costs, and increase the scalability and security of databases. The technical assistance will also design a data management system to collect MRV information and access market transaction services.

Subcomponent 2b: TA supporting carbon credit monetization. The project would support *BB* in establishing a “carbon credit marketplace”, pooling high-quality carbon credit projects to monetize the credits produced by project beneficiaries and crowd-in other market players. This is a key component for realizing the returns of investing in GHG reduction. The marketplace will offer multiple channels, including:

- **“Over the counter” transactions and auctions:** Over the counter transactions link sellers with buyers in domestic and international markets on spot or forward terms, including options to secure longer-term repeat transactions between sellers and buyers seeking a supply of quality credits.
- **Linkages to exchanges and global marketplaces:** The project will support BB in establishing linkages to liquid international carbon credit exchanges. It will also link BB to the World Bank’s Climate Warehouse, which is an effort to support the global carbon marketplace through the establishment of a public information system in which information on carbon credits will be transparently shared from linked registries and exchanges.
- **Emerging technologies:** Carbon credits can be converted into digital carbon assets and reside on a blockchain. Tokenization can help to increase the fungibility, liquidity and tradability of credits. In addition, specifying the minimum quality and characteristics associated with the carbon credits can help to target certain categories of buyers in specific market segments.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

Environmental and Social Categorization

FI-2



This is a financial intermediary (FI) project where the Bank is supporting a credit entity (Banco do Brasil, BB). The Project targets BB's clients operating in sectors that contribute the most to Brazil's carbon footprint (such as: agriculture and livestock, land use/forestry, transport, or energy).

Component 1 will support eligible borrowers to get carbon credit certifications and will offer a digital solution to link sellers and buyers. In addition, this subcomponent seeks to pilot a Climate Debt Fund (CDF) that will mobilize private capital to expand sustainability-linked finance. No unprecedented adverse impacts such as involuntary land acquisition, impacts on indigenous people, biodiversity and habitats, or cultural heritage are expected from the financed subprojects as they aim at disseminating low carbon and climate-smart technologies and productive practices.

Component 2 would provide technical assistance to BB to develop solutions that reduce the high transaction costs of creating high-quality carbon credits and to increase access to carbon credit markets. This technical assistance will not have large-scale, significant, and irreversible adverse direct impacts and/or downstream implications on society and the environment in the country. Component 2 also proposes to support BB in establishing a "carbon credit marketplace", pooling high-quality carbon credit projects to monetize the credits produced by project beneficiaries and crowd-in other market players.

Therefore, the Project is expected to have overall positive effect across the country by offer an integrated package of financial incentives and TA to attract investors and firms committed to accelerate mitigation outcomes and interested in accessing sustainability-linked finance and carbon markets.

Consequently, it has been classified as a Category FI-2 according to the World Bank's BP 4.03 as environmental and social risks and impacts arising from most of the subprojects are expected to be limited, generally site specific and can be addressed through implementation of Good International Industry Practice (GIIP), although a very limited number of subprojects may have potential significant adverse environmental or social risks or impacts that are diverse, irreversible, or unprecedented. In accordance with BB's Environmental and Social Management System, subprojects with high environmental and social risks would not be eligible to project financing.

Key issues and impacts – such as: the principles, processes and implementation capacity of BB's environmental and social management system; labor and working conditions including occupational health and safety; community health and safety – will be assessed during preparation.

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APPROVAL

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