PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE

Report No.: PIDA7072

Project Name	FIP: Environmental regularization of rural lands in the Cerrado of Brazil (P143334)
Region	LATIN AMERICA AND CARIBBEAN
Country	Brazil
Sector(s)	Forestry (60%), Public administration- Agriculture, fishing and forestry (20%), General agriculture, fishing and forestry sector (20 %)
Theme(s)	Climate change (60%), Land administration and management (20%), Environmental policies and institutions (20%)
Lending Instrument	Specific Investment Loan
Project ID	P143334
Borrower(s)	Federative Republic of Brazil
Implementing Agency	Ministry of Environment
Environmental Category	B-Partial Assessment
Date PID Prepared/Updated	19-Sep-2014
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Estimated Date of First Grant Approval	18-Feb-2015
Decision	

I. Project Context

Country Context

A sustainable path of poverty reduction and development would be one that manages natural resources for future generations, ensures social inclusion, and adopts fiscal responsibility to ensure that gains are not short-lived or achieved at the cost of future prosperity.

Brazil has made significant social, economic and environmental management progress in recent years. Endowed with a broad diversity of landscapes and substantial land resources appropriate for agriculture and livestock production, Brazil ranks third among the world's major agricultural exporters, fourth for food products and second for bio-ethanol production. Much of this agricultural growth has occurred over the last decade, and much of it has taken place in the Brazilian savanna, known as the Cerrado Biome.

Cerrado Biome and Carbon. The Cerrado Biome, located in central Brazil, covers nearly one quarter, or 2.04 million km2, of the country, with a mosaic of 23 types of vegetation composed of

tropical savannas, woodlands, grasslands and forests. It covers a large area with significant carbon stocks and water resources, and with substantial biodiversity. Twenty-two percent of Brazil's population (42.7 million) lives in the Cerrado but only 14 percent of the population resides in the rural areas. Distributed over 11 Federative Units (the States of Goiás, Tocantins, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Bahia, Maranhão, Piauí, São Paulo and Paraná; and the Federal District), the Cerrado Biome is mostly occupied by private landholdings. Some 78 percent of about 1 million landholdings in the biome are small landholdings (up to four fiscal modules) but they occupy only 15 percent of the area of all landholdings . Protected Areas represent 8.2 percent of the biome, while Indigenous Lands occupy 4.3 percent of the area.

The structural diversity of vegetation types in the Cerrado involves a broad spectrum of total biomass amounts. Total biomass (the sum of biomass above and below ground up to two meters deep) in Central Brazil varies from 21.8 Mg/ha in the campo sujo (parkland) to 77.8 Mg/ha in the dense Cerrado (dry forest) The root/shoot ratio in all Cerrado vegetation types shows values above 1, ranging from 2.6 in the open Cerrado (woodland) to 7.7 in campo limpo (grassland) (Castro and Kauffman 1998). Organic matter in the soil represents the most substantial carbon stock in the Cerrado's ecosystems, as shown by Abdala (1993) in his study of carbon stocks in different segments of a typical Cerrado area. The total estimated carbon stock amounts to 265 Mg/ha, with soil organic matter comprising 70 percent (185 Mg/ha), when the vegetation and the soil up to 1m depth are considered.

A carbon uptake of 0.14 Mg C ha/year is estimated for the tropical savannas, including the Cerrado. This carbon uptake contributes to a total of 0.39 Gt C/year, representing up to 15 percent of all carbon fixed by vegetation in the world. Seasonal flows of CO2 in a typical Cerrado indicate that this ecosystem is a CO2 sink during the rainy season, as well as a source of CO2 for a brief period at the end of the dry season .

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The rapid expansion of agriculture in the Cerrado Biome has caused natural vegetation to be converted to alternative land uses and has also increased the use of slash-and-burn as an agricultural practice. In 2010 the Cerrado lost about 6,469 km2 of natural vegetation cover, similar to what was observed in the Amazon, but this still represents a far higher percentage in relative terms: 0.32 percent in the Cerrado versus 0.15 percent in the Amazon.

Studies indicate that the clearing and burning of native vegetation, followed by cultivation of the soil in the process of conversion of the Cerrado's agricultural areas, results in a reduction of carbon stocks in the soil and an increase in greenhouse gas (GHG) emissions .

Between 2003 and 2008, emissions from deforestation and burning (including CH4 and N2O emissions) of Cerrado areas resulted in the emission of 1,450 Mt CO2eq. Of this total, conversion to pastures corresponds to approximately 820 Mt CO2eq (Bustamante et al. 2012). Moreover, according to the Brazilian Greenhouse Gases Inventory (Brazil 2010), carbon emissions due to deforestation in the Cerrado increased from 0.05 Pg C yr–1 (1988 to 1994) to 0.06 Pg C yr–1 (2002 to 2008). Continuing along such a path would threaten the long-term future of the Brazilian Cerrado Biome and its natural resources, and consequently the process of economic growth and poverty reduction.

Therefore, the Government of Brazil (GoB) recognizes that improving the effectiveness and efficiency of Brazil's environmental management system is a necessary step to: (i) improve the

resilience of environments to climate change; (ii) face the challenges imposed by economic growth which demands greater natural resource use; and (iii) promote an inclusive and environmentally sustainable growth.

Sectoral and institutional Context

Climate Change Policy Framework. The main reference points for Brazil's REDD+ type actions are the National Plan on Climate Change, launched by Brazil in 2008, and the National Policy on Climate Change, Law 12.187/2009 (Política Nacional de Mudanças Climáticas, PNMC), enacted in 2009. The PNMC defines the objectives and guidelines for domestic operations in Brazil aimed dealing with climate change. It legally defines the country's voluntary commitment to reduce emissions, which could generate a reduction of 36.1 to 38.9 percent in the projected emissions for 2020. Brazil's goal is to achieve an 80 percent reduction in deforestation in the Amazon from the 1996–2005 average (19,535 km²), and a reduction of 40 percent in the Cerrado from the 1999–2008 average (15,700 km²).

The aim of the Action Plan to Prevent and Control Deforestation and Fires in the Cerrado Biome (Plano de Ação para Prevenção e Controle do Desmatamento e das Queimadas no Cerrado, PPCerrado 2010), which is one of the PNMC's instruments, is to promote sustained reductions in the rate of deforestation and forest degradation, as well as in the incidence of fires and forest fires in this biome.

Forest Legal and Policy Framework. The Brazilian Forest Code (Law 12.651 of 2012) requires that: (i) all private rural landholdings maintain a percentage of native vegetation as Legal Reserves (Reservas Legais, RLs) ; and (ii) Areas of Permanent Preservation (Áreas de Preservação Permanente, APPs), such as riparian forests along watercourses, steep slopes, mountain tops, etc., also be maintained by landholders. The Forest Code also obliges landholders to register their landholdings in the Rural Environmental Cadastre (Cadastro Ambiental Rural, CAR) . The CAR is an electronic register of rural landholdings maintained by an official environmental entity whose aim is to effectively monitor, supervise, control, plan and ensure the environmental compliance of landholdings. This register contains details of the total area of individual farms, the areas earmarked for alternative land use, APPs and RLs. The CAR will provide essential information for monitoring and controlling private rural land use, including compliance with reforestation obligations. The system will be able to distinguish between legal and illegal land clearing, and will facilitate land use planning.

In addition, Decree 7.830 of 2012 defines the system and gives special treatment to small landholdings or family agricultural landholdings , settlements, agrarian reform projects, demarcated Indigenous Lands, and traditional communities that make collective use of their territory (i.e., quilombos, extractive communities).

Forest Investment Program (FIP). The FIP is a targeted program of the Strategic Climate Fund (SCF), which is one of two funds under the framework of the Climate Investment Funds (CIF) managed by the World Bank. The SCF was created to provide financing for new ways of developing or upscaling activities that seek to respond to a specific challenge related to climate change or to provide a sectoral response through targeted programs. The FIP was created as one of these targeted initiatives in order to catalyze policies and measures and mobilize funds to facilitate the decrease in deforestation and forest degradation, with a view toward promoting more

sustainable forest management, thus leading to reduced emissions and enhanced conservation of forest carbon stocks (REDD+) . The FIP finances efforts to address the underlying causes of deforestation and forest degradation and to overcome barriers that have hindered past efforts to do so in eight FIP pilot countries (Brazil, Burkina Faso, Democratic Republic of the Congo, Ghana, Indonesia, Lao People's Democratic Republic, Mexico and Peru).

Forest Investment Program: Brazil Investment Plan (BIP). The BIP, approved by the FIP Subcommittee in May 2012, seeks to promote sustainable land use and forest management improvement in the Cerrado Biome in order to reduce pressure on remaining forests, reduce GHG emissions and increase carbon dioxide (CO2) sequestration. The BIP's specific objectives are to: (i) improve environmental management in previously converted areas in the Cerrado Biome and (ii) produce and disseminating environmental information at the biome scale. Therefore, it will be essential to take these actions forward in a joint effort in order to avoid the conversion processes that could occur if command and control actions are not accompanied by incentives to promote sustainable productive activities. The BIP has two thematic areas and four projects, to be implemented as a coordinated set. Project 1.1 is the subject of this document.

Brazil Investment Plan
Project: Brazil Forest Investment Plan Management
Grant:US$1 million MDB:IBRD

Theme 1: Management and Use of Already Anthropized Areas - Improvement of producers' access to resources available for Low Carbon Emission Agriculture
Implementation of the Rural Environmental Cadastre in the entire biome
Project 1.1. Environmental regularization of rural lands (based on Rural Environmental Cadastre, CAR) - MDB: IBRD
Project 1.2. Sustainable production in areas previously converted to agricultural use (based on ABC Plan) - MDB:IDB

Theme 2: Generation and Management of Forest Information - Generation and availability of spatially and temporally consistent environmental information = forest inventory, remote sensing monitoring and early warning system for forest fires
Project 2.1. Forest information to support public and private sectors in managing initiatives focused on conservation and valorization of forest resources - MDB: IBRD
Project 2.2. Implementation of an early-warning system for preventing forest fires and a system for monitoring the vegetation cover - MDB: IBRD

Special Window: Dedicated Grant Mechanism for Indigenous People and Local Communities
Set aside: Private concessional funds

In addition, as a special window under the FIP, the Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (DGM) has been established to provide Brazilian communities with financing and learning mechanisms to support their participation in and complement the BIP. The Brazil DGM will provide grants to enhance their capacity and support specific initiatives in order to strengthen their participation in the FIP and other REDD+ processes at the local, national and global levels.

Furthermore, under the FIP, over US$50 million in grants and concessional funds were set aside to

contribute to the financing of innovative programs and projects that engage the private sector in reducing emissions from deforestation and forest degradation and promote sustainable forest management in FIP pilot countries. To date, two projects from Brazil were approved: (i) Brazil: Macaúba Palm Oil in Silvicultural Systems, and (ii) Brazil: Commercial Reforestation of Modified Lands in the Cerrado. See Annex 8 for further information.

The continental size and environmental complexity of Brazil's Cerrado Biome and the need to ensure the consistency of the various instruments employed, coordinate efforts in the regions, and share timely and relevant information are all challenges that call for the building of synergies among the various actors and activities with a view toward securing cost-effective solutions. Each of the projects in the BIP will contribute to this coordinated effort by funding investments and activities designed to support actions by the various executors and their working relationships with other government entities involved.

The BIP will therefore contribute to the efforts being undertaken by the GoB to reduce emissions and maintain the carbon stock of the country's second-largest biome.

II. Proposed Development Objectives

The Project Development Objectives are to: (i) enhance the capacity of the Ministry of Environment (Ministério do Meio Ambiente, MMA) and nine State Environmental Agencies to receive, analyze and approve rural environmental cadastre entries and link them to the national system (Sistema de Cadastro Ambiental Rural, SICAR); and (ii) support, in selected municipalities, landholding registration in the CAR system.

III. Project Description

Component Name

Strengthening the Environmental Agencies' capacity to implement the CAR system.

Comments (optional)

The aim of this component is to: (i) empower the OEMAs to receive, analyze and approve rural environmental cadastre entries and link them to the national electronic system (SICAR); and (ii) establish the necessary conditions to implement or connect to the SICAR, in terms of staff training, maps, imagery and thematic bases, and operational infrastructure, including equipment and technical tools.

Component Name

Registration of Landholdings in the Selected Municipalities.

Comments (optional)

The aim of this component is to obtain up-to-date environmental cadastral data that contains information about smallholders, their landholdings, and their enrollment in the CAR system of the OEMAs, focused on 47 selected municipalities.

Component Name

Project Management, Monitoring and Evaluation.

Comments (optional)

The aim of this component is to support the Project's effective and efficient management and administration (in close coordination with other projects that support the CAR under MMA), monitoring and evaluation.

IV. Financing *(in USD Million)*

Total Project Cost:	58.91	Total Bank Financing:	0.00
Financing Gap:	0.00		

For Loans/Credits/Others	**Amount**
Borrower	26.43
Strategic Climate Fund Credit	32.48
Total	58.91

V. Implementation

Institutional and Implementation Arrangements

The Project will be implemented over a four-year period. It will be managed by MMA's Secretariat of Extractivism and Sustainable Rural Development (Secretaria de Extrativismo e Desenvolvimento Rural Sustentável, SEDR). Several OEMAs would participate in Project implementation, under the overall coordination to be conducted by MMA. SEDR will establish a Project Management Unit (Unidade de Gestão do Projeto, UGP), which will be responsible for the Project's integrated coordination and implementation. The UGP will coordinate all Project activities in states with the OEMAs. Each OEMA will identify a focal point for Project activities; this focal point will act as the main interlocutor with MMA.

Financial resources will not be transferred to the Federative Units. The necessary goods and services for each state will be arranged by MMA, which has the responsibility for all Project procurement. The UGP will be the Bank's main interlocutor during Project implementation.

For proposes of assisting in the carrying out of Components 1, 2, and 3 of the Project, MMA shall enter into an International Cooperation Project with an International Cooperation Entity (ICE), in which their respective roles and responsibilities will be stipulated with regard to the implementation of the Project, as described in Annex 3.

Results Monitoring and Evaluation

Good rural environmental cadastre governance plays a key role in achieving the registration of private landholdings. It is also critical to ensure the effectiveness of the CAR system's implementation. In order to assess, monitor and evaluate the OEMAs' institutional capacity to register landholdings in the CAR system, MMA, in collaboration with the German Cooperation Agency (GIZ), is developing an electronic system to monitor the OEMAs' implementation of the CAR.

The number and area of landholdings registered in the CAR will be monitored by the SICAR, which automatically generates progress reports and statistics, disaggregated by landholding type (small or non-small) and gender.

In addition, Project monitoring and evaluation (M&E) will be conducted in accordance with: (i) the BIP monitoring and evaluation plan to be prepared; and (ii) established FIP rules and procedures. Two evaluations will be undertaken. The UGP will have primary responsibility for tracking progress related to Project outputs and outcomes. Project progress reports will be prepared and submitted to

the Bank and BIP–EC twice a year. The M&E indicators and arrangements are further detailed in Annexes 1 and 3.

Sustainability

Overall, the Project will help MMA, the OEMAs and landholders to comply with the new Forest Code mandate of conducting a cadastre of landholdings to be enrolled in the SICAR. The Project will reinforce the importance of the SICAR in MMA and in the OEMAs, and will help to mainstream this mandatory tool for the monitoring of landholdings with regard to environmental compliance and for controlling illegal deforestation in APPs and RLs.

It is important to note that the CAR's implementation is a priority for the Federal Government. The strong commitment by MMA and the OEMAs to implement the SICAR was evidenced during the Project preparation by: (i) technical agreements signed by the OEMAs and MMA; (ii) investments made by MMA to provide satellite images for the mapping of rural landholdings in order to create a database of the SICAR's geographic information system (GIS), aimed at the implementation of the CAR; and (iii) progress by some states in the environmental regulation process. Municipal authorities and local landholders' associations will contribute to social sustainability through their participation in the Project.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	×	
Natural Habitats OP/BP 4.04	×	
Forests OP/BP 4.36	×	
Pest Management OP 4.09		×
Physical Cultural Resources OP/BP 4.11		×
Indigenous Peoples OP/BP 4.10		×
Involuntary Resettlement OP/BP 4.12		×
Safety of Dams OP/BP 4.37		×
Projects on International Waterways OP/BP 7.50		×
Projects in Disputed Areas OP/BP 7.60		×

Comments (optional)

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