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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT PAPER

FOR

A SMALL RETF GRANT

IN THE AMOUNT OF US\$4,400,000

TO THE

FUNDAÇÃO LUIS EDUARDO MAGALHÃES

FOR A

BRAZIL CERRADO CLIMATE CHANGE MITIGATION

RURAL ENVIRONMENTAL CADASTRE AND FIRE PREVENTION IN BAHIA STATE
PROJECT

September 3, 2014

Environment and Natural Resource Management Global Practice
Brazil country Management Unit
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective September 18, 2013)

Currency Unit = Brazilian Real

US\$1.00 = R\$2.3

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

APP	<i>Área de Preservação Permanente</i> (Area of Permanent Preservation)
BCCCMTF	Brazil Cerrado Climate Change Mitigation Trust Fund
CAR	<i>Cadastro Ambiental Rural</i> (Rural Environmental Cadastre)
CEFIR	<i>Cadastro Estadual Florestal de Imóveis Rurais</i> State Forest Cadastre of Rural Landholdings
CPS	Country Partnership Strategy
CQS	Selection Based on Consultant's Qualifications
CRAD	<i>Centros de Referência em Recuperação de Áreas Degradadas</i> (Degraded Areas Recovery Centers)
FBS	Fixed-Budget Selection
FLEM	<i>Fundação Luis Eduardo Magalhães</i>
FM	Financial Management
GHG	Greenhouse Gases
GoB	Government of Brazil
GoBA	Government of Bahia
IFR	Interim Financial Report
INCRA	<i>Instituto Nacional de Colonização e Reforma Agrária</i> (National Institute for Colonization and Agrarian Reform)
INEMA	<i>Instituto do Meio Ambiente e Recursos Hídricos</i> (State Institute for Environment and Water Resources)
IPR	Independent Procurement Review
LCS	Least-Cost Selection
M&E	Monitoring and Evaluation
MMA	<i>Ministério do Meio Ambiente</i> (Ministry of Environment)
NCB	National Competitive Bidding
NGO	Nongovernmental Organization
PPCerrado	<i>Plano de Ação para Prevenção e Controle do Desmatamento e das Queimadas no Cerrado</i> (Action Plan to Prevent and Control Deforestation in the Cerrado Biome)
PRADs	<i>Planos de Recuperação de Áreas Degradadas</i> (Plans for Recovery of Degraded Areas)
QBS	Quality-Based Selection
QCBS	Quality- and Cost-Based Selection
RL	<i>Reserva Legal</i> (Legal Reserve)

SBD	Standard Bidding Document
SEIA	<i>Sistema Estadual de Informações Ambientais</i> (State Environmental Information System)
SEMA	<i>Secretaria de Meio Ambiente do Estado do Bahia</i> (Bahia State Secretariat of Environment)
SICAR	<i>Sistema Nacional de Cadastro Ambiental Rural</i> (Rural Environmental Cadastre System)
SISNAMA	<i>Sistema Nacional do Meio Ambiente</i> (National Environmental System)
SOE	Statement of Expenditure
SSS	Single-Source Selection
TORs	Terms of Reference

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Sector Manager:	Emilia Battaglini, Acting GENDR
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BRAZIL
Brazil Cerrado Climate Change Mitigation
Rural Environmental Cadastre and Fire Prevention in Bahia State Project

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DATA SHEET

BRAZIL
Brazil Cerrado Climate Change Mitigation
Rural Environmental Cadastre and Fire Prevention in Bahia State Project
Small RETF Grant Project Paper

LCR

LCSEN

Basic Information			
Date:	May 27, 2014	Sectors:	General agriculture, fishing and forestry sector: 50% Public administration–Agriculture, fishing and forestry: 50%
Country Director:	DeborahWetzel	Themes:	Climate change: 50% Land administration and management: 35% Biodiversity: 15%
Sector Manager/Director:	Emilia Battaglini / Paula Caballero	EA Category:	B
Project ID:	P143362		
Instrument::	Technical Assistance		
Team Leader(s):	Bernadete Lange, LCSEN		
Recipient: Fundação Luis Eduardo Magalhães			
Executing Agency: Fundação Luis Eduardo Magalhães			
Contact:	Nádia Holtz da Nova Moreira	Title:	Project Manager
Telephone No.:	55 71 3115-3064	Email:	nhmoreira@flem.org.br
Project Implementation Period: Start Date: July 1, 2014 End Date: December 30, 2017			
Expected Effectiveness Date:	July 10, 2014		
Expected Closing Date:	April 30, 2018		
Project Financing Data(US\$M)			
<input type="checkbox"/> Loan	<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Other	
<input type="checkbox"/> Credit	<input type="checkbox"/> Guarantee		
For Loans/Credits/Others			
Total Project Cost:	4.4	Total Bank Financing:	
Total Cofinancing:		Financing Gap:	
Financing Source	Amount(US\$M)		
BORROWER/RECIPIENT			
IBRD			
IDA: New			

IDA: Recommitted	
Others: DEFRA	4.4
Financing Gap	
Total	4.4

Expected Disbursements (in US\$ Million)

Fiscal Year	2015	2016	2017	2018					
Annual	1000	1500	1700	200					
Cumulative	1000	2500	4200	4400					

Project Development Objective(s)

The Project's main objective is to promote the reduction of climate change impacts in the Cerrado of the west of the Bahia State by: (i) promoting the environmental regularization of landholdings in the targeted municipalities and support actions to promote recovery of environmental liabilities; and (ii) strengthening the State's capacity to prevent and combat forest fires through the integration of local actors and promoting the adoption of sustainable production practices in the targeted municipalities.

Components

Component Name	Cost (US\$ Million)
Rural Environmental Regularization	2.4
Prevention and Control of Forest Fires	1.5
Project Administrative and Financial Management	0.44

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]
Does the project require any exceptions from Bank policies?	Yes []	No [X]
Have these been approved by Bank management?	Yes []	No [X]
Is approval for any policy exception sought from the Board?	Yes []	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No []

Safeguard Policies Triggered by the Project

	Yes	No
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04	X	
Forests OP/BP 4.36	X	
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X
Involuntary Resettlement OP/BP 4.12		X
Safety of Dams OP/BP 4.37		X
Projects on International Waters OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

Legal Covenants

Name	Recurrent	Due Date	Frequency
Description of Covenant			

Team Composition**Bank Staff**

Name	Title	Specialization	Unit	UPI
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Name	Title	Office Phone	City

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Brazil	State of Bahia	Cerrado Biome			

I. STRATEGIC CONTEXT

A. Country Context

Deforestation in the Cerrado Biome of Brazil

1. Brazil's territory encompasses a broad diversity of landscapes and seascapes. These include the Cerrado Biome, which is considered the world's richest savanna in terms of biodiversity. This biome has faced high rates of elimination of its native vegetation cover since the 1970s due to mechanized agriculture, livestock and charcoal production to meet the demands of the steel industry.
2. In 2010, the biome had lost about 49 percent, or 1.0 million km², of its native vegetation cover: about 4.5 percent in the 2002–2010 period. Although the Cerrado's deforested area in 2010 was the same size as that of the Brazilian Amazon in the same year (6,400 km²), it represented a larger percentage of the biome (0.32 percent versus 0.15 percent). However, annual deforestation has declined in recent years, both in the Cerrado and the Amazon.
3. Deforestation in the Cerrado is associated not only with the clear-cutting of natural vegetation, but with the uncontrolled use of slash-and-burn practices. In 2010 alone, 74,120 hotspots were detected in the biome, 70 percent of which were located in areas with remnant native vegetation.

Greenhouse Gas (GHG) Emissions

4. In Brazil, by far the largest share of net CO₂ emissions comes from land-use change, especially the conversion of natural vegetation to crop land and pasture (77 percent of total net CO₂ emissions in 2005). The Cerrado is the second largest biome in Brazil and South America (24 percent of the country's total land area). In this context, land-use change in the Cerrado contributed 22 percent of net anthropic emissions in 2005.
5. Additionally, recent estimates from the Brazilian Ministry of Science, Technology, and Innovation (MCTI) suggest a substantial decrease in Brazil's GHG emissions in 2010 (1,246 MtCO_{2e}, compared to 2,032 MtCO_{2e} in 2005), with agriculture becoming the country's main source of GHG emissions (35%), followed by the energy (32%) and the land use change and forest (22%) sectors¹. In 2010, agricultural emissions in Brazil were mainly due to enteric fermentation (56%) and agricultural soils (35%), and to a lesser extent due to animal waste management (5%), rice cultivation (2%) and burning of agricultural residues (1.5%).
6. Besides the conversion of natural vegetation for use of livestock and agriculture, the use of fire in the traditional management of pastures and cutting of wood for charcoal production has resulted in large losses of biomass and carbon emissions.
7. It is estimated that the Cerrado's relative contribution has increased: since 2005,

¹ Ministério da Ciência, Tecnologia e Inovação (MCTI), 2013. Estimativas anuais de emissões de gases de efeito estufa no Brasil. Available at: <http://gvc.es.com.br/arquivos/177/EstimativasClima.pdf>

deforestation levels in the Amazon have fallen more steeply than those in the Cerrado. The Cerrado is important not only as the savanna with the world's largest biodiversity, but also because of the large amounts of carbon it stores, with about 70 percent occurring in the soil and underground biomass.

National Policy on Climate Change

8. Through the National Policy on Climate Change (Law 12.187/2009 and Decree 7.390/2010), the Government of Brazil (GoB) made a voluntary commitment to reduce by 40 percent the annual rates of deforestation in the Cerrado Biome, based on average deforestation between 1999 and 2008.

9. Launched in September 2010, the aim of the Action Plan to Prevent and Control Deforestation in the Cerrado Biome (PPCerrado; Decree 5.577/2005) is to promote sustained reductions in the rates of deforestation and forest degradation, as well as in the incidence of burnings and forest fires in this biome.

National Policy for Prevention and Control of Forest Fires

10. The Forest Code (Law 12.651/2012) requires landholders to ask the State environmental agency for prior authorization to use fire on vegetation in locations or regions whose characteristics justify its use in agro-pastoral or forestry practices. It also states that Federal, State and Municipal environmental agencies, which comprise the National Environmental System (*Sistema Nacional do Meio Ambiente, SISNAMA*), shall update and deploy contingency plans for fighting forest fires and that the Federal Government should establish a National Policy for Prevention and Control of Deforestation and Forest Fires.

National Police for Rural Environmental Cadastre

11. A key tool to monitor and control deforestation in landholdings is 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 georeferenced details of the total area of individual landholdings, the areas earmarked for alternative land use, Areas of Permanent Preservation (*Áreas de Preservação Permanente, APPs*) and Legal Reserves (*Reservas Legais, RLs*). The CAR also specifies APP and RL areas that should be restored. The system will help to distinguish between legal and illegal land clearing, and will facilitate land-use planning.

State Police for Rural Environmental Cadastre

12. Bahia has its own electronic registration system called *Cadastro Estadual Florestal de Imóveis Rurais – CEFIR* (State Forest Cadastre of Rural Properties) which was established by the State Law 10.431/2006, as part of the *Sistema Estadual de Informações Ambientais – SEIA* (State Environmental Information System). The first paragraph of article 14 of Law 10.431/2006, defines CEFIR as "the instrument for monitoring Areas of Permanent Preservation, Legal Reserve, the Easement Environmental and forestry production, necessary to effectively control and supervise all forestry activities in the State, as well as provide information to enable the

creation of ecological corridors." In the State of Bahia, CEFIR exercises the functions and objectives of the Rural Environmental Registry (CAR) and is now fully integrated into the national system.

13. Under current law, the State government has the responsibility to make the registry and the Plan for Recovery of Degraded Areas (PRAD) of all small landholdings, as well as offer technical support for the restoration of the natural vegetation.

B. Sectoral and Institutional Context

The Cerrado in the State of Bahia

14. In the State of Bahia, the Cerrado occupies a total area of 151,348km², and by the year 2010, more than 30% of this total had been cleared. Of the 52 priority municipalities for actions to combat deforestation in the Cerrado listed in Ordinance MMA No. 97/2012, eight belong to Bahia and are all located in the extreme west of the state, namely: Barreiras, Cocos, Correntina, Formosa do Rio Preto, Jaborandi, Luís Eduardo Magalhães, Riachão das Neves and São Desidério.

15. The total area of these eight municipalities amounts to 71,393 km², of which 49,590 km² (almost 70%) corresponding to remnants of native Cerrado vegetation. According to Census 2010, the eight municipalities have 328,031 inhabitants. On one hand, the region has high levels of extreme rural poverty, *i.e.*, an average of 28% of the population living in a rural location survive with up to one eighth of the minimum wage. On the other hand, the municipalities are on the top of the list of the largest agricultural Gross Domestic Product (GDP) of the State, according to IBGE, 2009.

16. Western Bahia is characterized by economic growth based on agriculture and agribusiness exploitation whose intensification occurred in the 80s and has seen high rates of wealth. The native vegetation of the Cerrado has been replaced by monocultures of corn, rice, beans cotton, coffee, and especially soybeans. Two municipalities (Luís Eduardo Magalhães and Barreiras) had highlighted in its agro-industrial development in recent years and are considered potential cities for economic advancement by the Secretariat of Agriculture, Irrigation and Agrarian Reform of the State of Bahia - SEAGRI.

17. Most priority municipalities for combating deforestation in western Bahia also have a large part of their territory with remnants of native vegetation. However, the conversion of these areas into monocultures of grains with high economic value for Brazilian exports represent a major threat to the conservation of the Cerrado, the ecosystem services related to it and the quality of life of the human population that inhabits it.

18. Part of the work required for the completion of CAR / CEFIR has been done in partnership with non-governmental organizations and associations of farmers in the large landholdings in western Bahia. According to data presented by The Nature Conservancy (TNC) in 2012, nearly 10,000km² of territory in western Bahia is registered, but the information has not been entered in the new state system yet.

19. The hot spots detected from 2007 to 2011 in the State of Bahia are concentrated in the

extreme west, coinciding with the eight municipalities for actions to combat deforestation. The state government of Bahia, aimed at combating forest fires through the program "Bahia sem Fogo" (Bahia without Fire), launched in 2011, in partnership with the federal government. This program articulates the actions of fighting fires, and promotes actions such as training of firefighters and environmental education. The state has a Committee for Prevention and Fire Fighting established since 2009, which needs to be strengthened to address the problem of forest fires with the involvement of municipalities and coordination with different sectors related to the topic.

The State Environmental Secretariat of Bahia

20. The State Environmental Secretariat of Bahia (SEMA) was established by Law No. 8,538, of December 20, 2002. Originally called Secretary of Environment and Water Resources (SEMARH), had its name changed to Environmental Secretariat - SEMA on June 6, 2008, from the implementation of its administrative reform (Law No. 11,050) and Law 12.212, of May 4, 2011.

21. SEMA aims to ensure the sustainable development of the State of Bahia, formulating and implementing public policies to harmonize the preservation, conservation and sustainable use of the environment with respect to ethnic-racial-cultural and environmental justice in the State of Bahia.

22. Currently, SEMA has the indirect administration bodies of the Institute of the Environment and Water Resources (INEMA) and the Agency of Environmental Engineering of Bahia - CERB. Thus, it creates a synergistic structure, in which the organs of the environmental area retain their duties, but with the focus of public policy directed toward complementary goals.

23. The Bahia State has a program to prevent and combat forest fires called "Bahia without fire" since 2009. This program has the support of the Military Police and the Fire Department that has supported the work by monitoring via satellites, hotspots and overflights in the region. Two permanent teams of participatory supervision are available in the region. These teams, in addition to combat, guide communities on new forms of cultivation, reporting on environmental legislation and the strengthening of organized groups in order to minimize outbreaks of fires.

24. For the consolidation of geographic information, the Superintendence of Economic and Social Studies of Bahia (SEI) began through a partnership with the Directorate of the Army Geographical Service, updating the database with mapping data throughout Bahia, with a term completion in 2015. For the western region of the state delivery of 1,076 cartographic sheets are expected, with a scale of 1:25,000 by the end of the first semester of 2014.

25. The State Program of Shared Environmental Management (GAC) has as main objective to support the process of organizing and expanding the capacity of municipalities for environmental management, with a view to structure and enforce the State Environmental System (SISEMA).

Relationship to CPS

26. Aligned with the Government's environmental priorities, the objectives of the proposed Project are also fully in line with the current Country Partnership Strategy (CPS 2012–2015),

discussed by the World Bank's Executive Directors on November 1, 2011 (Report No. 63731-BR), under Strategic Objective 4: Improving sustainable natural resource management and climate resilience. The engagement in the biome seeks to: (i) support the mapping of degraded areas across all Brazilian biomes and help develop financial incentives to promote their rehabilitation; (ii) support increased sustainability of agricultural production and forestry in the Cerrado; (iii) support efforts by the Federal and selected subnational Governments to further strengthen and integrate their environmental management systems, including those at the metropolitan level, and ensure environmental compliance in rural areas; (iv) help improve the efficiency and effectiveness of environmental licensing and monitoring systems; and (v) help the Federal Government and the private sector to implement Brazil's National Climate Change Plan.

Cerrado Biome approach

27. The World Bank is organizing its approach to Brazil's Cerrado Biome through partnership building with all government levels, private sector and civil society. The Biome approach combines conservation with the promotion of local and regional rural economic development. The Bank is currently supporting a set of initiatives by the Government of Brazil (GoB) to promote inclusive development through complementary programs and projects: (i) the Sustainable Cerrado Initiative; (ii) the Brazil Cerrado Climate Change Mitigation Trust Fund; and (iii) the Forest Investment Program (FIP): Brazil Investment Plan.

28. Each of the programs or projects will fund investments and activities that support actions of the various implementing agencies and their relationships with other entities and projects or programs. Moreover, the World Bank is supporting the Federal and State Governments' efforts to improve efficiency in the planning and execution of projects.

Brazil Cerrado Climate Change Mitigation Trust Fund (BCCMTF)

29. Launched in 2012 as part of the Cerrado Biome approach, the Brazil Cerrado Climate Change Mitigation Trust Fund (BCCMTF) is a single-donor trust fund with Bank- and recipient-executed components from the Department for Environment, Food and Rural Affairs of United Kingdom (DEFRA).

30. The Program's main preliminary goals are: (i) the capture of 22.5 million tons of CO₂ equivalent over 30 years through the recovery of forests, 26 million tons through direct reductions from deforestation, and 65 million tons by reducing fires (including a reduction in the burning of forests and agricultural lands); (ii) the restoration of 360,000 hectares (ha) of native vegetation and 128,000 ha of avoided deforestation (a 46 percent reduction), with a substantial impact on reducing biodiversity loss; and (iii) intervention with 1,000 small landholders (20 percent of the total target of 5,000 farmers) to improve livelihoods through a combination of access to credit and the adoption of improved agricultural practices and natural resource management.

31. The proposed Project will contribute to the environmental regularization of rural properties in the Cerrado of Bahia and to the decrease in forest fires in the Cerrado. Greater environmental compliance and mitigation of wildfires mean less illegal deforestation, fewer degraded lands and more reclaimed areas. In a more global view, this will contribute toward reducing net greenhouse

gas (GHG) emissions and conserving ecosystem services and biodiversity.

C. Higher-Level Objectives to which the Project Contributes

32. The proposed Project is part of the BCCCMTF. It will support the GoBA in reducing illegal deforestation on rural landholdings, reducing GHG emissions, and increasing carbon sequestration by: (i) promoting farmers' compliance with the Brazilian Forest Code, based on the strengthening of monitoring and enforcement of mandatory reserve requirements through environmental registration of rural properties; and (ii) promoting controlled burning, preventing forest fires, replacing burning with more sustainable agricultural practices, and strengthening firefighting capacity.

II. PROJECT DEVELOPMENT OBJECTIVES (PDO)

A. PDO

33. The Project's main objective is to promote the reduction of climate change impacts in the Cerrado of the west of the Bahia State by:

- Promoting the environmental regularization of landholdings in the targeted municipalities and support actions to promote recovery of environmental liabilities; and
- Strengthening the State's capacity to prevent and combat forest fires through the integration of local actors and promoting the adoption of sustainable production practices in the targeted municipalities.

Project Beneficiaries

34. Taking into consideration the specific activities, the main beneficiaries are:

- The Federal, State and Municipal Governments and Municipal environmental organizations in the targeted municipalities, which will be trained to implement the CAR and prevent and fight forest fires.
- Family farmers² in the targeted municipalities, who will receive direct support for the CAR registration of their landholdings. An estimated 4,823 families meet this criterion.
- Farmers in general (medium- and large-scale) within the targeted municipalities, who have greater access to registration in the CAR, as established by Law 12.651/2012. An estimated 916 landholders meet this criterion.

² Family farmers are those who carry out activities in rural areas and meet the following requirements: (i) they do not possess, in any way, an area greater than four fiscal modules²; (ii) they mainly use labor of their own family for the economic activities of their establishment or undertaking; (iii) they have a minimum percentage of household income stemming from the economic activities of their establishment or enterprise, as defined by Law No. 12.512 of 2011; and (iv) they run their establishment or undertaking with their family, as defined by Law No. 11.326 of 2006.

35. In addition, the Project's indirect beneficiaries will be: (i) rural technical assistance organizations, nongovernmental organizations (NGOs), research and educational institutions (e.g., universities), representative organizations (Rural Workers Union, Local Producers Associations and Cooperatives, etc.) that operate in the targeted municipalities and will have access to technical information on prevention and control of forest fires and sustainable production; (ii) all landholders in Bahia (small, medium and large-scale), who will have access to the CEFIR for registration of rural landholdings and SEMA will have trained and experienced professionals; (iii) rural communities that will have greater transparency due to the implementation of CEFIR that will organize information on the use and occupation of land, the registration of properties facilitating the development and implementation of policies and programs for this target audience, increase in the labor supply by installing agribusinesses and other related companies once they feel encouraged to settle in more organized municipalities; and (iv) the private sector with the environmental regulation of rural properties which will enable the marketing of products through proof of legality and environmental responsibility in the production chain.

PDO-Level Results Indicators

36. Rural environmental registration of small rural landholdings of targeted municipalities:

- Land area where sustainable land management has been adopted as result of the project (core indicator).
- Land users adopting sustainable land management practices as result of the project. (core indicator).

37. Prevention and control of forest fires in the targeted municipalities:

- Reduction of forest fired area observed in each targeted municipalities.(percentage)
- Number of actions to combat forest fires in the targeted municipalities as a result of the project. (number)

III. PROJECT DESCRIPTION

A. Project Area

38. The Project will cover eight municipalities of the Cerrado Biome in west of Bahia. The following criteria were used to select the priority municipalities: (i) Ministry of Environment's Decree 97/2012, which lists 52 municipalities deemed priorities under the PPCerrado based on the following: (a) areas of remnant native vegetation larger than 20 percent of the municipality, or existence of protected areas; and (b) deforestation over 25km² observed during the 2009–2010 period; (ii) numbers of hotspots detected in 2011; (iii) concentration of extreme poverty in rural areas; and (iv) municipalities that are not financially supported by external funds or grants to carry out a cadastre of small rural landholdings.

39. Based on the above criteria, the municipalities are Formosa do Rio Preto, Cocos, Jaborandi, Correntina; São Desidério, Riachão das Neves, Barreiras e Luís Eduardo Magalhães. In these

municipalities there are about 5,000 small rural landholdings (less than 500 hectares), which will directly benefit from this project.

40. Considering the amount of funds available, the State establish criteria to determine where to focus the CAR registration efforts, which included: (i) have access conditions and logistics to implement Project activities within the Project's time frame; (ii) with state Protected Areas (UCs); (iii) with a significant area of remaining native vegetation; (iv) well-organized local organizations to support the process; (v) potential synergies with existing activities in the CAR; and (vi) have local administrative capacity to implement the project immediately.

41. Based on these criteria, the following municipalities have been selected: Formosa do Rio Preto, Riachão das Neves, São Desidério e Luís Eduardo Magalhães. In a total of 4,823 small rural landholdings, in an estimated area of 119,860ha.

B. Project Components

42. **Component 1: Rural Environmental Regularization (Estimated Cost: US\$2.42 million).** The aim of this component is to promote environmental regularization by implementing the CAR for small landholders and promoting the recovery of degraded areas in APPs and RLs in these landholdings located in the targeted municipalities.

43. This component will focus on building the institutional capacity of the State and the targeted municipalities' agencies to implement the CAR and on developing a framework to support the recovery of degraded areas in these municipalities. Activities are envisaged to: (i) update the land use maps for the target municipalities; (ii) establishment of "situation rooms" in the target municipalities to monitor CAR registration and deforestation; (iii) delivery of training to environmental agencies technicians, state and municipal staff and rural extensions staff, as well as consulting firms in environmental regularization of rural properties in how to operate CEFIR and how to prepare Plans of Recovery of Degraded Areas (PRAD); (iv) design and implement a communication strategy and campaign to involve local and interdisciplinary team for joining CEFIR and on the activities to be developed; (v) organize events to promote the CAR; (vi) support the preparation of plans for recovery of degraded areas in small rural landholdings and the preparation of the environmental assessment of the targeted municipalities; (viii) develop a financial sustainability plan for the Degraded Areas Recovery Centers (Centros de Referência em Recuperação de Áreas Degradadas, CRADs); (ix) promote the creation of a seed collection network in the targeted municipalities and/or establish nurseries linked to the CRADs; (x) provide technical training courses on degraded areas recovery and sustainable economic alternatives; and (xi) design a financial sustainability strategy for the CRADs.

44. **Component 2: Prevention and Fight of Forest Fires (Estimated Cost: US\$1.54million).** The aim of this component is to strengthen the capacity to prevent and fight forest fires and promote alternatives to the use of fire in the State of Bahia, especially in the Project's targeted municipalities.

45. This component will focus on strengthening the capacity of the State and targeted municipalities to prevent and fight forest fires, and on developing practices to promote alternatives to the use of fire. Activities envisaged are: (i) empowering the Prevention and Fight

Forest Fires State Committee to prevent and fight forest fires in targeted municipalities; (ii) assisting in the creation of municipal committees or municipal protocols for preventing and fighting forest fires and of the contingency plan; (iii) promoting the development of municipal operating plans for preventing and fighting forest fires; (iv) developing a communication strategy to disseminate actions on preventing and fighting forest fires; (v) providing training on how to prevent and fight forest fires; (vi) establishing municipal situation rooms to monitor deforestation and forest fires; (vii) implementing units to demonstrate alternatives to the use of fire, and promoting community forest fire prevention protocols; (viii) providing training on practical alternatives to the use of fire and on sustainable economic activities; (ix) promoting the subject of forest fire prevention and control through environmental education efforts, and (x) acquiring equipment and materials to support preventive and repressive inspection efforts.

46. Component 3: Administrative and Financial Management (Estimated Cost: US\$0.44 million). The aim of this component is to support the Project’s effective and efficient management, administration, monitoring and evaluation. This component will include activities such as: Project coordination, monitoring and reporting; adequate financial management, and procurement; and Project financial and technical activities for Project closure.

C. Project Financing

47. The Project will be funded in Bahia through a US\$4.4 million grant from the Brazil Cerrado Climate Change Mitigation Trust Fund (BCCCMTF). The Recipient will be a nongovernmental institution that will sign a Grant Agreement with the World Bank.

Project Cost and Financing

Project Components	Project Cost	Grant Financing	% Financing
Component 1. Environmental Regularization	2,417,000	2,417,000	100
Component 2. Prevention and Control of Forest Fires	1,543,000	1,543,000	100
Component 3: Administrative and Financial Management	440,000	440,000	100

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

48. Fundação Luis Eduardo Magalhães (FLEM) will manage the Project in close agreement with the primary partners, SEMA and INEMA. This Secretariat will be signed a Technical Cooperation Agreement with FLEM aimed at achieving Project objectives. The agreement between FLEM, SEMA and INEMA commits the parties, in a coordinated manner, to the implementation of joint actions and implementation of control mechanisms, according to their responsibilities as set in the Cooperation Agreement. The Ministry of Environment (MMA) will be responsible for coordinating the cooperation between the parties involved, and to supervise

and monitor the progress of work and achievement of results. For the purpose of overseeing the implementation of the Grant, an inter-institutional group will be organized for purposes of full Project implementation. Each of the institutions involved (MMA, SEMA, INEMA, and FLEM) will designate a focal point who will be responsible for monitoring Project implementation.

49. SEMA will coordinate the technical implementation of the Project, while SEMA and INEMA will technically implement the Project in accordance with the respective policies, procedures and approaches that rule CAR and Forest Fires Prevention and Fighting, and will monitor and evaluate the Project (including its indicators). SEMA will also implement the organizational structure needed for executing the Project, and will develop a communication strategy that will also identify potential environmental and social problems that may arise during Project execution, including prevention and mitigation measures, and the necessary cooperation agreements with municipalities, universities and unions.

B. Results Monitoring and Evaluation

50. The monitoring and evaluation (M&E) system will be led by SEMA. M&E will be conducted in accordance with: (i) the BCCCMTF monitoring and evaluation plan to be prepared; and (ii) established BCCCMTF rules and procedures. SEMA will have primary responsibility for tracking technical progress related to Project outputs and outcomes. Project progress reports will be prepared and submitted to the Bank and MMA twice a year.

C. Project Sustainability

51. The institutional sustainability of the project will be ensured through the use of CEFIR. Local Municipalities and local community associations will contribute to the social sustainability through its participation in the project.

52. All products will benefit MMA, the State and local governments with regard to the long-term decision making.

V. KEY RISKS AND MITIGATION MEASURES

Stakeholder Risk	Risk Rating	Mitigation Measures
Implementing Agency Risk		
Capacity	Low	FLEM has ample experience in implementing World Bank projects, they were responsible for a GEF project that just closed and had a Satisfactory performance. Training and technical assistance have been undertaken so that FLEM, SEMA and INEMA can efficiently and effectively manage Project resources.
Governance	Low	The Project will be carried out by an NGO, not by the state government, with the aim of streamlining procurement processes, in collaboration with SEMA and INEMA. The latter's active participation is required more toward the second quarter of 2014, when new State administrations should have geared up.
Project Risk		

Design	Moderate	The Project's technical implementation is complex since it includes actions at the Federal, State and Municipal levels. Therefore, the Project's technical implementation would be the overall responsibility of MMA, SEMA and INEMA. SEMA will be responsible for technical oversight, management and monitoring of Project activities. MMA will be responsible for supervising all activities. Both institutions will need to be staffed with technical employees, including biodiversity and environmental specialists, and an administrative specialist to liaise with FLEM.
Social and Environmental	Low	The Project would not have any direct negative impact on the environment. The registration of landholdings and their characteristics in the environmental cadastre and the subsequent licensing of economic activities could lead to indirect impacts that trigger certain Bank safeguard policies, such as Environmental Assessment, Natural Habitats, and Forests. The registration of rural holdings, whether as property or occupation, in the environmental cadastre does not imply recognition of any tenure rights. The campaign to inform local landholders would stress and clarify this distinction.
Program and Donor	Low	
Delivery Monitoring and Sustainability	Low	There may be an initial difficulty in generating baselines and establishing monitoring routines. The Project will be supervised regularly and support will be provided for integration with other MMA actions on CAR issues and prevention and control of forest fires.
Overall Implementation Risk	Moderate	

A. Overall Risk Rating Explanation

53. The following are the principal risks inherent in the proposed Project design: (i) the Project's feasibility and success are highly dependent on the participation and commitment of key stakeholders such as State and Municipal agencies and landholders; and (ii) the operation's complexity, particularly its multilevel implementation, will require a strong technical champion.

VI. APPRAISAL SUMMARY

54. The Project was designed specifically to maximize sustainability and efficiency. To this end, it will invest in activities that seek an optimum combination of immediate and long-term benefits.

55. The Project's rational considers the costs against the benefits or effectiveness of actions to reach a set of measures that maximizes the expected results for a specific public policy. In this case, it means strengthening the main instrument for native vegetation maintenance and/or restoration in the rural private landholdings under the new Forest Code, the CAR.

56. By choosing key municipalities in the Cerrado Biome, in terms of deforestation status, the Project shows a strong economic rationale both for providing the socio-economic benefits arising from the CAR, as well as accelerating the implementation of this instrument at a crucial time to

the implementation of the new forest code.

57. The environmental benefits of the project will be: (i) CO₂ retention/removals due to forest conservation activities to be performed by the landholders and triggered by the CEFIR; (ii) CO₂ emission reduction due to control and reduction in the use of fire as an agricultural practice (pasture burning), and thus to reduce accidental forest or bush fires, and (iii) reduced rate of biodiversity loss, through the maintenance and/or restoration of natural vegetation. The value of these benefits cannot be readily quantified.

58. The pilot experiences of the CAR in the Amazon Biome municipalities indicate the timeline and costs, as shown in the table below.

Municipalities	Project costs (R\$)	Period of execution (month)		Landholdings (number)	Average cost (R\$)	
		original	revised		By hectare	By CAR
Marcelândia	860,000	9	15	900	1.15	958.75
Acrelândia/ Plácido de Castro/ Senador Guimard	1,000,000	9	12	6,500	1.66	154.97
Dom Eliseu/ Ulianópolis	1,800,000	9	12	2,900	3.36	632.75

59. Cost-effectiveness analysis is where one seeks to achieve a certain benefit at minimum cost. In this kind of analysis, the benefits or externalities are not considered. In order to perform a simple calculation of cost effectiveness, the following assumptions were made: (i) forest restoration costs were not considered; (ii) only funding provide by the DEFRA was considered, and (iii) estimated total of R\$ 2,760,000/ US\$1,200,000 for 3,376 landholdings enrollment in the CEFIR. In this analysis the estimated average cost by landholding is R\$ 817.53.

60. The CAR process costs in each selected municipality will be monitored during Project implementation.

61. The required fiduciary and financial assessments have been completed.

62. The Project will focus on rural environmental regularization. The prevention and combating of forest fires would not have any negative environmental impacts. It will support the GoBA in its efforts to strengthen environmental management tools aimed at sustainable use of natural resources, and to reduce illegal deforestation.

63. The Project will work directly with landholders, landholder associations and Municipal and State governments. Benefits will accrue to all rural landholders, directly or indirectly, from the environmental regularization promoted by the Project. Key stakeholders associated with this Project have been involved in its preparation.

ANNEX 1: RESULTS FRAMEWORK AND MONITORING

Brazil Cerrado Climate Change Mitigation: Rural Environmental Cadastre and Fire Prevention in Bahia State Project

Project Development Objective (PDO): The Project's main objective is to promote the reduction of climate change impacts in the Cerrado of southern Bahia by: (i) promoting the environmental regularization of landholdings in the targeted municipalities; and (ii) preventing and combating forest fires through the integration of local actors and promoting the adoption of sustainable production practices in the targeted municipalities.

PDO Level Results Indicators*	Core	Unit of Measure	Baseline	Cumulative Target Values**					Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description (indicator definition etc.)
				YR 1	YR 2	YR3	YR 4	YR5				
Indicator: Land users adopting sustainable land management practices as result of the project	<input checked="" type="checkbox"/>	Number	0	0	1,440	3,376	3,376	----	annual	CEFIR reports	SEMA	Number of small rural landholdings enrolled in CEFIR
Indicator: Land area where sustainable practices have been adopted as result of the project.	<input checked="" type="checkbox"/>	Number hectares	0	0	35,958	83,902	83,902	--	annual	CEFIR reports	SEMA	This indicator measures the land area that as a result of the project enrolled in CEFIR
Indicator: Reduction of forest fired area observed in each targeted municipalities as a result of the project		Percentage	To be defined in YR1	0	5%	10%	10%	--	annual	INPE reports	INPE	This indicator will be measured by
Indicator: Number of actions to combat forest fires in the targeted municipalities as a result of the project		Number	0	0	50	150	150	--	annual	SEMA reports	SEMA	Actions carried out in target municipalities. The proposed targets will be revised by the YR2
INTERMEDIATE RESULTS												
Intermediate Result (Component 1): Rural Environmental Regularization												
<i>State Environment Agency (OEMA) of Bahia provide with capacity to promote the registration of rural properties in CAR / CEFIR in the target municipalities of the Project in coordination with federal and municipal agencies.</i>		%	To be defined in YR1	0	50%	70%	70%	---	Semiannual	MMA's matrix	SEMA	Preparedness of State Environment Agency to implement the CAR . The reports will monitor the results using the

												CAR system monitoring tool developed by the MMA.
<i>Small landholdings registered into the CAR system as a result of the Project</i>	<input type="checkbox"/>	Number	0	0	1,440	3,376	3,376	----	semiannual	CEFIR reports	SEMA	Number of small rural landholdings enrolled in CEFIR
<i>People in the State and Municipal environmental agencies trained to prepare and assist with the PRAD</i>	<input type="checkbox"/>	Number	0	0	100	200	200	----	semiannual	SEMA reports	SEMA	Number of staff trained. Of which female
Intermediate Result (Component 2): Prevention and Control of Forest Fires												
<i>People trained on techniques to prevent and fight forest fires</i>	<input type="checkbox"/>	Number	0	0	50	120	120	----	semiannual	SEMA reports	SEMA	Number of staff trained, of which female
<i>People trained in alternatives to the use of fire under the Project.</i>	<input type="checkbox"/>	Number	0	0	60	160	160	---	semiannual	SEMA reports	SEMA	Number of staff trained, of which female
<i>Targeted Municipalities equipped to combat forest fires.</i>		Number	0	0	4	8	8	---	semiannual	SEMA reports	SEMA	

*Please indicate whether the indicator is a Core Sector Indicator (see <http://coreindicators>).

**Target values should be entered for the years data will be available, not necessarily annually.

Notes:

- (i) The expected project period is July 1, 2014 to December 30, 2017.
- (ii) The baseline value and annual values of observed forest area fired in each selected municipalities will be provided by the National Institute of Spatial Research (INPE). MMA, as ProCerrado program, will be responsible to

ANNEX 2: DETAILED PROJECT DESCRIPTION

Brazil Cerrado Climate Change Mitigation: Rural Environmental Cadastre and Fire Prevention in Bahia State Project

Brazil Cerrado Climate Change Mitigation Trust Fund (BCCMTF)

1. Launched in 2012 as part of the Cerrado Biome approach, the Brazil Cerrado Climate Change Mitigation Trust Fund (BCCMTF) is a single-donor trust fund with Bank- and recipient-executed components from the Department for Environment, Food and Rural Affairs of the United Kingdom (DEFRA).
2. The Program's main preliminary goals are: (i) the capture of 22.5 million tons of CO₂ equivalent over 30 years through the recovery of forests, 26 million tons through direct reductions from deforestation, and 65 million tons by reducing fires (including a reduction in the burning of forests and agricultural lands); (ii) restoration of 360,000 ha of native vegetation and 128,000 ha of avoided deforestation (a 46 percent reduction), with a substantial impact on reducing biodiversity loss; and (iii) intervention with 1,000 small landholders (20 percent of the total target of 5,000 farmers) to improve livelihoods through a combination of access to credit and the adoption of improved agricultural practices and natural resource management.
3. The proposed Project will contribute to the environmental regularization of rural properties and to the decrease in forest fires in the Cerrado in the west Bahia. Greater environmental compliance and mitigation of wildfires mean less illegal deforestation, fewer degraded and more reclaimed areas. In a more global view, this will contribute toward reducing net emissions of greenhouse gases and the conservation of ecosystem services and biodiversity.
4. To date, the BCCMTF is composed of the following Projects:
 - Piauí: Rural Environmental Cadastre and Fire Prevention; Implementing Agency: Fundação Agente; Executor: SEMAR/PI – P143362;
 - Bahia: Rural Environmental Cadastre and Fire Prevention; Implementing Agency: Fundação Luís Eduardo Magalhães (FLEM); Executor: SEMA/BA – P143376;
 - Monitoring and warning of burning and forest fires in the Cerrado Biome; Implementing Agency: Funcate; Executor: INPE – P149189;
 - MMA Program Coordination;³ and
 - Technical Assistance on Climate Change in the Cerrado (Non-Lending Technical Assistance - NLTA): Bank-executed – P145822.
5. The proposed Project is part of the BCCMTF. It will support the Government of Bahia's

³ Project under preparation. Implementing agency will be a NGO.

efforts to reduce illegal deforestation on rural landholdings, reduce GHG emissions and increase carbon sequestration by: (i) promotion of farmers' compliance with the Brazilian Forest Code, based on strengthening the monitoring and enforcement of mandatory reserve requirements through environmental registration of rural properties; and (ii) promotion of controlled burning, prevention of forest fires, replacement of burning with more sustainable agricultural practices, and strengthened firefighting capacity.

National Policy for Prevention and Control of Forest Fires

6. The Forest Code (Law 12.651/2012) requires landholders to ask the environmental state agency for prior authorization to use fire on vegetation in locations or regions whose characteristics justify its use in agro-pastoral or forestry practices. It also states that federal, state and municipal environmental agencies, which form the National Environmental System (*Sistema Nacional do Meio Ambiente*, SISNAMA), shall update and deploy contingency plans for fighting forest fires, and that the Federal Government should establish a National Policy for Prevention and Control of Deforestation and Forest Fires.

Rural Environmental Cadastre

7. A key tool to monitor and control deforestation in landholdings is 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 georeferenced details of the total area of individual landholdings, the areas earmarked for alternative land use, Areas of Permanent Preservation (APPs) and Legal Reserves (RLs). The CAR also specifies APP and RL areas that should be restored. The system will be able to distinguish between legal and illegal land clearing, and will facilitate land-use planning.

8. The Forest Code (Law 12.651/2012) stipulates mandatory membership in the CAR for all rural properties and possessions in Brazil. Moreover, it states that the Federal and State governments should implement Environmental Regularization Programs (*Programas de Regularização Ambiental*, PRAs) to ensure landholders' commitment to adequate legal requirements related to the recovery of environmental liabilities in APPs and RLs. The Forest Code and Decree 7.830 of 2012 provide special treatment, with no fees, to small landholders or family farming landholdings^{4,5}, settlements, agrarian reform projects, demarcated Indigenous

⁴ Family landholders and rural family entrepreneurs are those who carry out activities in rural areas, simultaneously meeting the following requirements: (i) they do not hold, in any capacity, an area up to four fiscal modules; (ii) they use mostly manual labor of their own family in the economic activities of his establishment or undertaking; (iii) they have a minimum percentage of household income stemming from economic activities of their establishment or enterprise, as defined by the Executive Authority (wording of Law No. 12.512 of 2011); and (iv) they manage their establishment or undertaking with their family. Law 11.326 of 2006.

⁵ A fiscal module is a unit of land measurement used in Brazil, instituted by Law No. 6.746 of 1979. It is expressed in hectares, is variable and is set for each municipality, taking into account: (i) the type of exploitation prevalent in the municipality; (ii) proceeds from the prevalent exploitation; (iii) other exploitations in the municipality which, although not dominant, are significant because of income or area used; and (iv) the concept of family landholding. The fiscal module corresponds to the minimum area required for a rural property's exploitation to be economically

Lands, and traditional communities that make collective use of their territories (i.e., *quilombola*, extractive communities).

9. Decree 7.830 of 10/17/2012 determines the roles and responsibilities of each entity involved in the process, at all three levels of government (federal, state and municipal).

10. CAR does not cover the regularization and registry of land tenure. Land tenure regularization is a separate process that involves the licensed public notary offices (*cartórios*) in the states and the National Institute for Colonization and Land Reform (*Instituto Nacional de Colonização e Reforma Agrária*, INCRA). This is not under the scope of the proposed Project⁶.

11. Bahia has its own electronic registration system called *Cadastro Estadual Florestal de Imóveis Rurais* – CEFIR (State Forest Cadastre of Rural Properties) which was established by the State Law 10.431/2006, as part of the *Sistema Estadual de Informações Ambientais* – SEIA (Environmental Impact Assessment), and it has been operational since December 2012. The first paragraph of article 14 of Law 10.431/2006, defines CEFIR as "the instrument for monitoring Areas of Permanent Preservation, Legal Reserve of Forest Easement, the Easement Environmental and forestry production, necessary to effectively control and supervise all forestry activities in the State, as well as provide information to enable the creation of ecological corridors." In the State of Bahia, CEFIR exercises the functions and objectives of the Rural Environmental Registry (CAR) and is now fully integrated into the national system.

12. The Project is fully in line with Brazil's National Climate Change Policy (NPCC), which guides domestic policy operations with regards to climate change. The Action Plan to Prevent and Control Deforestation and Fires in the Cerrado Biome (PPCerrado) is one of the sector plans stipulated by the NPCC. As such, it is expected to make a positive contribution to the country's current REDD+ efforts.

Project Area

13. The Project will cover eight municipalities of the Cerrado Biome in the west of Bahia. The following criteria were used to select the priority municipalities: (i) Ministry of Environment's Decree 97/2012, which lists 52 municipalities deemed priorities under the PPCerrado based on the following: (a) areas of remnant native vegetation larger than 20 percent of the municipality, or existence of protected areas; and (b) deforestation over 25km² observed during the 2009–2010 period; (ii) concentration of extreme poverty in rural areas; and (iii) municipalities that are not financially supported by external funds or grants to carry out a cadastre of landholdings.

14. Based on the criteria set forth above, the municipalities are listed in the following order of priority: Formoso do Rio Preto; Riachão das Neves; São Desidério e Luis Eduardo Magalhães, Barreiras, Correntina, Jaboranti, and Côcos. The four priority municipalities will be focus of the

viable. In Bahia, municipalities have fiscal modules ranging from 30 to 75 ha, with the exception of the metropolitan area, where the fiscal module is set at 15 ha.

⁶ The high precision of geodetic surveys of property boundaries required by INCRA for registration in the National Rural Cadastre System (*Sistema Nacional de Catastro Rural*, SNCR) is very stringent (about 0.5 m). Land tenure legislation stipulates the methodology to be used in defining the boundaries of landholdings.

rural environmental cadaster activities. They have 4,823 small landholdings, occupying approximately 119,800ha. The activities to be implemented in the Barreiras, Correntina, Jaboranti, and Côcos municipalities will be focus of the capacity building activities and environmental education.

15. Considering the amount of funds available, the State establish criteria to determine where to focus the CAR registration efforts, which included: (i) have access conditions and logistics to implement Project activities within the Project's time frame; (ii) with state Protected Areas (UCs); (iii) with a significant area of remaining native vegetation; (iv) well-organized local organizations to support the process; (v) potential synergies with existing activities in the CAR; and (vi) have local administrative capacity to implement the project immediately.

16. Based on these criteria, the following municipalities have been selected: Formosa do Rio Preto, Riachão das Neves, São Desidério e Luís Eduardo Magalhães. In a total of 4,823 small rural landholdings, in an estimated area of 119,860ha.

Project Components

17. Component 1: Rural Environmental Regularization (Estimated Cost: US\$2.4 million). The aim of this component is to promote environmental regularization by implementing the CAR for small landholders and promoting the recovery of degraded areas in APPs and RLs in these landholdings located in the targeted municipalities.

18. This component will focus on building the institutional capacity of the State and the targeted municipalities' agencies to implement the CAR and on developing a framework to support the recovery of degraded areas in these municipalities. Activities are envisaged to implement the CAR include: (i) update the land use maps for the target municipalities; (ii) establishment of "situation rooms" in the target municipalities to monitor CAR registration and deforestation; (iii) delivery of training to environmental agencies technicians, state and municipal staff and rural extensions staff, as well as consulting firms in environmental regularization of rural properties in how to operate CEFIR and how to prepare Plans of Recovery of Degraded Areas (PRAD); (iv) the design and implementation of a communication strategy and campaign to involve landholders to enroll in CEFIR; and (v) organize events to promote the CAR.

19. Activities envisaged to promote recovery of degraded areas in small rural landholdings include: (i) support the preparation of plans for recovery of degraded areas in small rural landholdings and the preparation of the environmental assessment of the targeted municipalities; (ii) develop a financial sustainability plan for the Degraded Areas Recovery Centers (Centros de Referência em Recuperação de Áreas Degradadas, CRADs); (iii) promote the creation of a seed collection network in the targeted municipalities and/or establish nurseries linked to the CRADs; (iv) provide technical training courses on degraded areas recovery and sustainable economic alternatives; and (v) design a financial sustainability strategy for the CRADs.

20. Component 2: Prevention and Control of Forest Fires (Estimated Cost: US\$1.5 million). The aim of this component is to strengthen the capacity to prevent and fight forest fires and promote alternatives to the use of fire in the State of Bahia, especially in the Project's targeted municipalities.

21. This component will focus on strengthening the capacity of the State and targeted municipalities to prevent and fight forest fires, and on developing practices to promote alternatives to the use of fire.

22. This component will include the following activities focused on preventing and combating forest fires: (i) empowering the Prevention and Fight Forest Fires State Committee to prevent and fight forest fires in targeted municipalities; (ii) assist in the creation of municipal committees or municipal protocols for preventing and fighting forest fires; (iii) development of Municipal Operating Plans to Prevent and Fight Forest Fires; (iv) dissemination of strategies for preventing and fighting forest fires in the priority municipalities in the west of Bahia; (v) training of experts (investigation of the causes and origins of forest fires); (vi) procurement and deployment of equipment for the Forest Fire Fighting and Preparedness Regional Operational Base in selected municipalities; these operational bases will host PREVFOGO brigades, civil defense and fire stations; and (vii) training of volunteer firefighters to prevent and combat forest fires in the Project's municipalities.

23. This component will also include the following activities focused on alternative agricultural practices and aimed at replacing the use of fire and generating income for small producers: (i) implementing units to demonstrate alternatives to the use of fire, and promoting community forest fire prevention protocols; (ii) providing training on practical alternatives to the use of fire and on sustainable economic activities; (iii) promoting the subject of forest fire prevention and control through environmental education efforts, and (iv) acquiring equipment and materials to support preventive and repressive inspection efforts.

24. Component 3: Administrative Financial Management of the Project (Estimated Cost: US\$0.44 million). This component includes the establishment of financial tools and administrative procedures. Its aim is to create guidelines and procedures, in accordance with World Bank rules, to support the full implementation of Project activities. These tools and procedures include the preparation of formal documents for the procurement of goods and services, and mechanisms to facilitate the process of external audits and accountability.

25. The main activities of this subcomponent are: (i) the management plan for Project implementation established by the parties (FLEM, SEMA and INEMA); (ii) development and dissemination of guidelines and procedures for financial execution; and (iii) regular meetings between the parties to review and adjust the Project management system.

26. The proposed Project will work directly with SEMA, INEMA and selected municipalities. Benefits will accrue to rural landholders, directly or indirectly, from the environmental regularization and forest fire prevention and control promoted by the Project.

Project Financing

27. The Project will be funded in Bahia through a US\$4.4 million grant from the Brazil Cerrado Climate Change Mitigation Trust Fund (BCCCMTF). The Beneficiary will be a nongovernmental institution that will sign a Grant Agreement with the World Bank. The technical implementation will be coordinated directly by the SEMA, and the technical implementation will be carried out by SEMA and INEMA-BA, these will establish a Technical

Cooperation Agreement with the Beneficiary. The Ministry of Environment (MMA) will be responsible for coordinating the cooperation between the parties involved, and to supervise and monitor the progress of work and achievement of results.

Sustainability

28. The Project's institutional sustainability is ensured by the legal liability of the state and municipalities to implement the CAR and establish procedures to prevent and fight forest fires, as stipulated in the Brazilian Forest Code (Law 12.651/2012).

29. In terms of continuity and replicability, the Project contributes directly to two purposes: (i) the promotion of a new and required awareness among landholders in support of the CAR system and (ii) the generation of information to be included in the registration process in the state system (CEFIR). Information generated by the Project will support environmental management in the state, providing opportunities for analysis, enhancements, improvements and internalization of lessons learned for replication of tools and technologies in other municipalities, and greater environmental control by the state.

Lessons Learned and Reflected in the Project Design

30. The design of the proposed Project draws on the experience and lessons learned from the pilot Brazil Rural Environmental Cadastre Technical Assistance Project (P126343), funded by the Pilot Program to Conserve the Brazilian Rain Forest (PPG7).

31. The specific lessons learned include: (i) communication strategies, partnership development, interaction with land tenure management institutions, and establishment of other strategic partnerships should be planned, taking into consideration local characteristics; (ii) landholders' willingness to register in the CAR is directly linked to the Project's credibility and image; (iii) partnerships are essential for the successful implementation of the CAR at all government levels, based on local scenarios and seeking the involvement of the most influential institutions; (iv) identifying the size of most of the properties and estimating the number of owners in the target group are important for better strategic planning of the Project; and (v) public services, such as cellphones, Internet and energy, and the availability of trained technicians are necessary inputs for Project activities.

ANNEX 3: IMPLEMENTATION ARRANGEMENTS

Brazil Cerrado Climate Change Mitigation: Rural Environmental Cadastre and Fire Prevention in Bahia State Project

Project Institutional and Implementation Arrangements

32. FLEM will manage the Project, in close agreement with the primary partners: the Secretariat of the Environment of the State of Bahia (SEMA) and *Instituto do Meio Ambiente e Recursos Hídricos (INEMA)*, the State Institute for Environment and Water Resources. SEMA and INEMA will sign a technical cooperation agreement with FLEM, aimed at achieving the Project's objectives. The agreement between FLEM, SEMA and INEMA commits the parties, in a coordinated manner, to the implementation of joint actions and control mechanisms, according to their responsibilities as set in the Cooperation Agreement. The Ministry of Environment (MMA) will be responsible for coordinating the cooperation between the parties involved, and to supervise and monitor the progress of work and achievement of results. For the purpose of overseeing the implementation of the Grant, an inter-institutional group will be organized for purposes of full Project implementation. Each of the institutions involved (MMA, SEMA, INEMA and FLEM) will designate a focal point who will be responsible for monitoring Project implementation.

33. SEMA will have a team dedicated to the Project, including a focal point and a professional to monitor and supervise the overall Project

34. FLEM's team will comprise six staff members dedicated to the Project: the Project Leader; Project Manager; Project Advisor; Chief Financial Officer; Financial Specialist; and, a Procurement Specialist experienced in implementing Bank-financed projects; and an Administrative Assistant.

35. Meetings will be held between FLEM, SEMA, INEMA and MMA for operational planning, monitoring and adjustment of actions.

36. The Terms of Reference (TORs) for hiring the services of a third party, as well as technical specifications of goods needed by the Project, will be prepared by SEMA and INEMA and submitted to FLEM for the procurement of all goods, non-consultant services and consultant services.

37. SEMA will coordinate the technical implementation of the Project, while SEMA and INEMA will implement the Project in accordance with policies, procedures and approaches for implementation, and will monitor and evaluate the Project (including its indicators). SEMA will also implement the necessary organizational structure for Project execution, and will develop a communication strategy that will also identify potential environmental and social problems that may arise during Project execution, including prevention and mitigation measures, and the necessary cooperation agreements with municipalities, universities and unions. SEMA will also be responsible for providing supervision of FLEM with regards to all procurement aspects.

Financial Management, Disbursements and Procurement

Financial Management (FM)

38. A Financial Management Assessment (FMA) was carried out in accordance with Bank guidelines. Given the project's low complexity and the centralization of the financial operations in FLEM, an entity with experience in the implementation of projects funded by international organizations, the FM risk associated with the project has been assessed as "Low". The assessment took place in FLEM offices on August, 2013 and evaluated the project's FM arrangements, for the time being, as "Moderately Satisfactory", due to the need to: adapt the chart of accounts, systems (GEM and Caatinga) and controls to the project; hire/designate the financial management team; and prepare the IFRs model.

39. Financial management supervision will take place at least once a year. It will evaluate the continuing adequacy of the FM arrangements and the: (i) review of Interim Financial Reports (IFRs); (ii) review of the auditors' reports and follow-up on issues raised in the management letter; (iii) follow-up on any financial reporting and disbursement issues; (iv) response to Project team questions; and (v) update of the financial management rating in the Implementation Status and Results Report (ISR).

40. The recipient of the grant will be the FLEM. The technical execution will be carried out by SEMA and INEMA, and Project implementation will be carried out by FLEM. FLEM has a comprehensive structure that distinguishes different Project operational activities, including planning, execution and supervision.

41. FLEM will maintain the same procedures used in its regular/daily operations. Therefore, separation of duties among the payment verification function, procurement and Project management will be in place.

42. Grant disbursements will be made on a transaction basis and expenditures will be documented to the Bank using Summary Sheets with Records and Statements of Expenditure (SOEs). The direct payment disbursement method will not be used. Advance disbursement will be the primary method used. The Bank will disburse the proceeds of the grant to a separate Designated Account in Brazilian *Reais* (R\$) in the *Banco Bradesco*, Branch 3573-4, account number 26.438-5 in Salvador, Bahia and managed by FLEM. Payments for goods and services for the Project will be made directly from this account. The Designated Account will have a fixed ceiling of US\$440,000.00. The frequency for reporting eligible expenditures paid from the Designated Account will be quarterly. The Minimum Application Size will be US\$5,000 equivalent. The Trust Fund will also have a four-month grace period after the closing date, during which the Bank will accept withdrawal application relating to Project transactions incurred before the closing date. Payments made in respect of grant activities will be included in the Summary Sheets and SOEs and forwarded to the World Bank's Brasilia office.

43. The retroactive financing is allowed for up to US\$440,000 equivalent for payments made during the twelve months immediately before the date of the Grant Agreement, for Eligible

Expenditures under Categories 1 and 2 of the disbursement table. All Eligible Expenditures submitted for retroactive financing shall be procured under procurement methods and procedures acceptable by the Bank.

44. Interim Unaudited Financial Reports (IFRs) will be prepared on a cash-basis and will show the budgeted and expenditure figures by quarter, accumulated for the year and accumulated for the project. A specific ledger will be created in the system to record all grant transactions, and will be aligned with the structures of the grant cost and disbursement tables to record transactions by category and component/subcomponent. They will be sent not later than 45 days after each calendar year quarter. All counterpart contribution supporting the grant’s activities will be reflected in the IFRs.

45. In order to maintain the same arrangements in the audit procedures applied to previous World Bank operations, an audit of the Project’s annual financial statements (IFRs) will be conducted by the Supreme Audit Institution of Bahia (TCE-BA) and carried out in accordance with TORs acceptable to the Bank and the Bank’s audit policy. The audit will be due no later than six months after the end of the fiscal year. The audit report will contain a single opinion on the Project financial statements and the Designated Account, as well as a management letter (report on internal controls). The first audit will cover the period of the retroactive financing and the first year of implementation after signature.

46. The audit report will be subject to the World Bank’s policy on Access to Information.

47. Summary of FM actions to be taken prior to effectiveness:

Adaptation of the chart of accounts and IT systems to the project.

Designation of the financial management team.

Submission of IFR format for the Bank to provide its no-objection.

Preparation of draft TORs for audit and submission to the Bank for no-objection.

Financial categories

48. The Table below specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Project and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

Category	Amount of the Grant Allocated (USD)	Percentage of Expenditures to be Financed
(1) Works, Goods, Non-consulting services, Consultants’ services, and training	3,960,000	100%
(2) Operating Costs	440,000	100%
TOTAL AMOUNT	4,400,000	

49. For the purposes of this projects the term:

- “Operating Costs” means the operating costs incurred for the purposes of the implementation of the Project including: (A) operation and maintenance of vehicles; (B) incremental office equipment and supplies; (C) shipment costs (whenever these costs are not included in the cost of goods); (D) office supplies; (E) rent for office facilities; (F) utilities; (G) travel and per diem costs for technical staff carrying out supervisory and quality control activities; (H) communication costs including advertisement for procurement purposes; and (I) administrative and operational support staff.
- “Training” means the costs associated with the preparation and carrying out of seminars and workshops including, event logistics, transportation, catering, material preparation, course enrollment fees, per diem, and other costs directly related to the preparation and implementation of seminars and workshops.

Procurement

50. The Project will be technically implemented by SEMA and INEMA, while FLEM will be responsible for procuring goods, works and services as well for selecting consultants, in accordance with the Bank’s procurement policies. FLEM will also be responsible for proper contract management. SEMA and INEMA will provide the necessary technical inputs (TORs, technical specifications, etc.) to allow FLEM to carry out the procurement process with due diligence.

51. A procurement assessment of FLEM’s capacity to implement procurement actions was carried out in April 2013 and updated in March 2014. FLEM is a solid private foundation and has acquired substantial experience in implementing Bank-financed procurement by executing the *GEF Mata Branca Project* (P070867 / TF090274). This positive experience includes preparing bidding and selection documents for different procurement and selection methods, procurement plans, cost estimates, and evaluation reports, reviewing TORs, and preparing cost estimates. Most staff members have participated in training that was offered by the Bank. As all procurement would be carried out by FLEM exclusively, no residual risk has been identified, and the risk is rated “LOW”.

52. Procurement for the proposed project would be carried out in accordance with the World Bank’s “Guidelines: Procurement under IBRD Loans and IDA Credits” dated January 2011, and “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” dated January 2011, and the provisions stipulated in the Legal Agreement. The general description of various items under different expenditure category is described below. For each contract to be financed by the Loan, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are agreed between the Recipient and the Bank project team in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

53. Procurement of works. Small works are expected under the Project and would include construction of nurseries/greenhouses. Procurement of small works should be carried out

following Shopping procedures as indicated in paragraph 3.5 of the Guidelines. Direct contracting would also be used when the conditions of paragraph 3.7 of the Guidelines are met.

54. Procurement of goods. Goods procured under this Project would include IT, office, and communication, agriculture, firefighting, individual protection and geo-referencing equipment; vehicles; surveillance tower; cameras; photocopies, promotional items (t-shirts, caps, stationary, etc.), etc. Procurement of Goods would follow National Competitive Bidding (using SDBs agreed with the Bank) or Shopping procedures. Bidding documents must include anticorruption and right-to-audit clauses to be considered acceptable to the Bank, and the legal agreement would need to include a provision that the NCB bidding documents shall be acceptable to the Bank. If the requirements of par. 3.7 are met, Direct Contracting may also be used for the procurement of goods. Direct contracting of *Instituto Harmonia da Terra* is expected for the purchase of kits of the “Carta da Terra” educational game, estimated at approximately US\$23,000.

55. Procurement of non-consulting services. Procurement of non-consulting services would include geo-referencing and rural land cadaster registration, graphic design, educational material production, etc. Procurement would be conducted using National SBD agreed with or satisfactory to the Bank for all NCB. Bidding documents must include anticorruption and right-to-audit clauses to be considered acceptable to the Bank, and the legal agreement would need to include a provision that the NCB bidding documents shall be acceptable to the Bank. Small-value contracts not to exceed US\$100,000 would follow Shopping procedures. Direct contracting would also be used when the conditions of paragraph 3.7 of the Guidelines are met.

56. Selection of consultants. Consulting services by firms and individuals required for the Project would include a wide array of technical assistance and advisory services, such as the development of electronic systems, map preparation, training and economic diagnostics. Short-lists of consultants for services estimated to cost less than US\$500,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions in the Consultant Guidelines. All contracts estimated to cost more than US\$100,000 equivalent per contract, the first process under each selection method, and any single source of consulting services would be subject to prior review by the Bank. Quality- and Cost-Based Selection (QCBS) would be the default method for the selection of firms, but Quality-Based Selection (QBS), Least-Cost Selection (LCS), Selection under a Fixed Budget (FBS), Selection Based on the Consultants’ Qualifications (CQS), and Single Source Selection (SSS) could also be used if the requirements of the guidelines are met. Individual consultants should be selected in accordance with procedures of Section V of the Bank’s Consultant Guidelines.

57. Training related expenditures would include contracts for event logistics, transportation, catering, material preparation, course enrollment fees, and per diem. These contracts would be procured following the agency’s administrative procedures, which were reviewed and found acceptable by the Bank.

58. Operational costs. Operational costs include (A) operation and maintenance of vehicles; (B) incremental office equipment and supplies; (C) shipment costs (whenever these costs are not included in the cost of goods); (D); (E) rent for office facilities; (F) utilities; (G) travel and per diem costs for technical staff carrying out supervisory and quality control activities; (H)

communication costs including advertisement for procurement purposes; and (I) administrative and operational support staff. These contracts would be procured following the agency’s administrative procedures, which were reviewed and found acceptable by the Bank.

59. Procurement Plan. The detailed 18-month procurement plan was approved by the Bank in March 2014. During Project execution, the plan would be updated annually or as required to reflect the Project’s actual implementation needs and improvements in institutional capacity. The recommended thresholds for the use of the procurement methods specified in the Loan Agreement are identified in the following table.

Table: Thresholds for Procurement Methods and Prior Review

Expenditure category	Contract value threshold (US\$ thousands)	Procurement method	Processes subject to prior review
Works	< 200	Shopping	n/a
Goods	> 100	NCB	n/a
	< 100	Shopping	n/a
Services	> 100	NCB	US\$1,000,000
	< 100	Shopping	n/a
Consulting services (firms)	> 300	QCBS, SFB, LCS	US\$200,000
Individual consultants	Section V in the Guidelines		US\$100,000
Direct contracting/ Single-Source Selection	Any	Any	All cases regardless of the amounts involved

Note: NCB = National Competitive Bidding
 QCBS = Quality- and Cost-Based Selection
 QBS = Quality-Based Selection
 FBS = Fixed-Budget Selection
 LCS = Least-Cost Selection
 CQS = Selection Based on Consultants’ Qualifications

60. Frequency of procurement supervision: Supervision of procurement would be carried out through a prior review supplemented by supervision missions with a post review at least once a year.

Environmental and Social (including safeguards)

61. The Project will focus on rural environmental regularization. Preventing and combating forest fires would not have any negative environmental impacts. It will support the state government’s efforts to strengthen environmental management tools aimed at sustainable use of natural resources and reducing illegal deforestation.

62. The Project will work directly with landholders, landholder associations, and municipal and state governments. Benefits will accrue to all rural landholders, directly or indirectly, from the environmental regularization promoted by the Project. Key stakeholders associated with this Project have been involved in its preparation.

63. The Government of Bahia has prepared an Environmental and Social Assessment and Environmental and Social Framework (ESMF) that will serve as guides for addressing issues

arising during Project implementation. In this social impact assessment, special attention will be placed on identifying the presence, interests and the potential impacts of Project interventions on minority ethnic groups (such as *quilombola* communities) and poor rural landholders. It is expected that potentially adverse environmental or social impacts will be small, since they will be avoided or minimized with appropriate preventive and mitigation measures.

Monitoring & Evaluation (M&E)

64. The M&E system will be led by SEMA. M&E will be conducted in accordance with: (i) the BCCCMTF monitoring and evaluation plan to be prepared; and (ii) established BCCMTF rules and procedures. SEMA will have primary responsibility for tracking technical progress related to Project outputs and outcomes. Project progress reports will be prepared and submitted to the Bank and MMA twice a year.