PROJECT IDENTIFICATION FORM (PIF) [1]

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Consolidation of National System of Conservation Units (SNUC) and Enhanced Flora and Fauna Protection – GEF TER		
Country(ies):	Brazil	GEF Project ID:[2]	4859
GEF Agency(ies):	IADB	GEF Agency Project ID:	BR-G1004
Other Executing Partner(s):	Ministry of Environment (MMA), Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), Jardim Botanico do Rio de Janeiro (JBRJ)	Submission Date: Re-submission Date:	03-06-2012 04-02-2012
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	48
Name of parent program (if applicable): ➢ For SFM/REDD+ ☐		Agency Fee ($):	3,262,180

A. FOCAL AREA STRATEGY FRAMEWORK[3]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
(select) BD-1	1.1. Improved management effectiveness of existing and new protected areas.	Output 1. New protected areas (24) and coverage (1,000,000 ha) of unprotected ecosystems.	GEFTF	13,000,000	57,500,000
(select) BD-1	1.2. Increased revenue for protected area systems to meet total expenditure required for management.	Output 2. Sustainable financing plans (24).	GEFTF	3,500,000	7,500,000
(select) BD-2	2.1. Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation.	Output 2. National and sub-national land-use plans that incorporate biodiversity and ecosystem services valuation.	GEFTF	7,150,000	31,000,000
CCM-5 (select)	5. Restoration and enhancement of carbon stocks in forests and non-forest lands, including peatland.	Forest and non-forest lands under good management practices (20,000ha)	GEFTF	4,293,000	5,500,000
(select) SFM/REDD 1	1.2. Good management practices applied in existing forests.	Forest area (5,000 ha) under sustainable management, differentiated by forest type.	GEFTF	3,178,820	22,000,000
		Sub-Total		31,121,820	123,500,000
		Project Management Cost[4]	GEFTF	1,500,000	4,700,000
		Total Project Cost		32,621,820	128,200,000

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.
[4] GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

B. PROJECT FRAMEWORK

Project Objective: Improve the effective conservation of globally significant ecosystems and endangered flora and fauna species, as well as restore degraded landscapes and enhance carbon stocks in priority areas of the Caatinga, Pampa and Pantanal biomes, through expanding and consolidating the National System of Protected Areas (SNUC) and promoting sustainable management of adjacent forest and non-forest lands.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Cofinancing ($)
Component 1: Creation of new Protected Areas (PAs)	Inv	Improved representa-tiveness of major biomes in SNUC, by expanding PAs for Caatinga, Pantanal and Pampa	At least 24 new protected areas declared covering approx. 1,000,000 hectares Financing plans prepared for 10 of the new PAs	GEFTF	3,000,000 (all BD)	6,000,000
Component 2: Management of existing PAs and Adjacent Areas Subcomponent 2.1: Effective conservation management Subcomponent 2.2: Fire management	Inv	Selected PAs consolidated, having achieved pre-defined levels of management capacity, equipment and infrastructure provisions Improved capacity for fire management and effective conservation management by PA managers and local communities	Management plans or specific management programs (e.g. fire management, biodiversity monitoring), including sustainable financing plans, prepared for 14 priority PAs 14 priority PAs equipped (especially for fire management and biodiversity monitoring) and provided with basic infrastructure Good fire management practices implemented in PAs and in 20,000ha of adjacent areas. Business plans focusing on ecosystem services provisions provided by PAs under implementation in 4 selected communities adjacent to PAs.	GEFTF	13,500,000 (BD: 11,207,000 CC: 2,293,000)	53,000,000
Component 3: Restoration of deteriorated landscapes in priority areas	Inv	Increased natural habitat and reduced habitat fragmentation in target biomes (Caatinga, Pampa and Pantanal) by means of strategic restoration and sustainable land management Recovery/ restoration of carbon stock and ecosystem services in intervention areas	Assessment to determine most strategic and effective sites for restoration completed Land use plans for identified priority sites prepared (number TBD) At least 5,000 ha of deteriorated landscapes within the identified priority sites are reforested and managed under sustainable practices	GEFTF	7,470,000 (BD: 2,291,000 CC: 2,000,000 SFM: 3,178,820)	33,000,000

Component 4: Monitoring of flora and fauna extinction risks	Inv	Increased capacity to manage flora and fauna extinction risks Improved management of priority endangered species through improved monitoring	Assessment of PA effectiveness in meeting conservation goals (incl. status of threatened flora and fauna) completed Categorization of flora and fauna extinction risks and identification of key threats to conservation developed for 11 priority species Design and management guidelines developed for PAs to meet specific needs of priority species 11 Action Plans for priority endangered species in implementation	GEFTF	6,000,000 (all BD)	25,000,000
Component 5: Integration and community relations	TA	Functional integration with complementary initiatives in Caatinga, Pampa and Pantanal biomes and strongly supporting community relations	Effective collaboration mechanisms with complementary initiatives established Communication program to achieve strong community support for conservation objectives in areas with new PAs in implementation	GEFTF	1,151,820 (all BD)	6,500,000
				Sub-Total	31,121,820	123,500,000
				Project Management Cost[5]	GEFTF	1,500,000	4,700,000
				Total Project Costs		32,621,820	128,200,000

B. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
National Government	MMA; ICMBio; JBRJ	In-kind	15,000,000
National Government	MMA; ICMBio; JBRJ	Grant	33,000,000
Private Sector	[see Section B.5 for details]	Grant	45,200,000
Bilateral Aid Agency (ies)	KfW [LifeWeb initiative]	Grant	20,000,000
GEF Agency	IADB [BR-L1347 - SISNAMA Project]	Hard Loan	15,000,000
Total Cofinancing			128,200,000

C. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
IADB	GEFTF	Biodiversity	Brazil	24,790,000	2,479,000	27,269,000
IADB	GEFTF	SFM/REDD-plus	Brazil	3,331,820	333,180	3,665,000
IADB	GEFTF	Climate Change	Brazil	4,500,000	450,000	4,950,000
Total Grant Resources				32,621,820	3,262,180	35,884,000

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

[5] Same as footnote #3 – Proportional allocation of PMC: Biodiversity U$1,140,000; Climate Change U$207,000 and SFM U$153,000.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the GEF focal area/LDCF/SCCF strategies /NPIF Initiative:

The GEF TER project supports GEF's Global Operational Strategy by contributing to the long-term protection of Brazil's worldwide important ecosystems. It takes actions required for expanding and strengthening the country's protected area system whilst enhancing knowledge and effective protection of endangered wildlife. In coherence and coordination with other initiatives (GEF Cerrado, GEF MAR, ARPA, bilateral cooperations and the LifeWeb initiative), the current proposal aims at consolidating the National System of Protected Areas (SNUC, according to its abbreviation in Portuguese) and the improved protection of endangered species.

The project is in line with the GEF Focal Area Strategies on biodiversity, climate change mitigation and land degradation by virtue of the fact that it aims to: (a) improve management effectiveness of existing and new protected areas and greater coverage of unprotected ecosystems and threatened species (BD-1); (b) restore and enhance carbon stocks in forests and non-forest lands (CCM-5); and (c) develop and apply good management practices in existing forests (SFM/REDD-1) and (d) productive areas (BD-2). Furthermore, the project is fully consistent with the principles of the Convention on Biological Diversity (CBD). It considers the country's achievement of conservation targets as informed by the Fourth National Report to the Convention on Biological Diversity and cited by the Global Biodiversity Outlook nº 3. In addition, selected activities will build national and regional capacities and enabling conditions, especially to benefit threatened species (CD 2 up to CD 5). The project addresses several Aichi Biodiversity Targets such as numbers 5, 11, 12, 14 and 15, outlined at the X Conference of Parties (COP). These targets consider, above all, the increase and effective management of protected areas, the improvement of the conservation status of threatened species and the restoration of degraded landscapes, especially around protected areas to increase sustainably managed landscapes.

A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

Brazil signed the Convention on Biological Diversity (CBD) in 1992 and Congress ratified it in 1994. The RAMSAR Convention on Wetlands was ratified in May 1996. Since the early 1990's, the Brazilian Federal Government has taken further decisive measures to develop strategies, policies, plans and programs aimed at conservation and sustainable use of biodiversity. These include enhancement of the legal framework, institutional capacity building on several administrative levels, and establishment of national policies, programs and major projects. Of special importance and relevance are guidelines for the implementation of the National Biodiversity Policy (Decree nº 4.339, 22 August 2002), establishment of goals and guidelines for the National Biological Diversity Program (Decree n° 4703, 21 May 2003; PRONABIO), Project for Conservation and Sustainable Use of Brazilian Biodiversity (PROBIO), and establishment of the National Commission on Biodiversity (CONABIO) and national biodiversity targets (CONABIO Resolution nº 3, 21 December 2006). Currently, several administrative actions focused on biodiversity conservation are in process, including sector dialogs and public consultations to define the country's biodiversity targets for 2020.

The National Strategic Plan for Protected Areas – PNAP (Decree nº 5758 of January 2006), establishes conservation priorities and considers the commitments made by the country upon signing the CBD. Based on a nationwide overview, the PNAP recognized the need to further complement the coverage of Protected Areas (PAs) and enhance their effectiveness. Although the PNAP did not include national targets, CONABIO formally agreed to conserve in

protected areas 30% of the Amazon Biome and 10% each of all other biomes as well as of coastal and marine zones.

In its conservation efforts, Brazil made significant advances through the National System of Conservation Units (SNUC; Law nº 9.985 of 2000 and Decree nº 4.340/2002) setting up criteria for creation, implementation and management of PAs, defining management categories and objectives of protected areas and providing, for the first time, a framework for coordination between Federal, State, Municipal and private sector on this matter. The present proposal seeks to strengthen the SNUC and reach effective conservation for terrestrial ecosystems, with particular focus on the Caatinga, Pampa and Pantanal.

With respect to Sustainable Forest Management and Climate Change, the project is likewise consistent with the existing legal framework, developed in response to commitments under the CBD, RAMSAR, and UNCCC conventions. Of particular relevance in this context are: i) the National Forest Program (PNF; Decree nº 3.420, from April 2000), which establishes criteria and promotes the sustainable use of forests and reforestation; ii) the National Action Program to Fight Desertification (PNCD; 2004), which relates to land degradation in dry lands and the consequent loss of biodiversity and provision of basic ecosystem services; and iii) the National Plan towards Climate Change (PNMC, Decree 6263, from September 2008), which announces voluntary targets and priority actions relevant to conservation and restoration activities of biomes and ecosystems.

The project is consistent with Brazil's Second National Communication to the UNFCCC (30 November 2010), particularly Part III: Description of Steps Taken or Envisaged to Implement the United Nations Framework Convention on Climate Change in Brazil, Chapter 3. The Communication discusses the importance of the SNUC and the under-representation of the Caatinga, Pampa (Southern Fields) and Pantanal biomes (3.11), as well as national efforts to prevent and combat forest fires (3.12.2).

The proposed project meets the Brazilian eligibility criteria for GEF funding set by the National Commission on Biodiversity (CONABIO) - National Biodiversity Policy Decree No. 4.339, of 22nd August 2002, and outlined by the "Brazilian Strategy for the GEF" document.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Brazil has the 4th largest Protected Area System in the world, with a current, but still increasing, area of more than 1.5 million km^2. In the past, the rate of expansion of the system through declaration of new protected areas has fluctuated between periods of stagnation and times of vast additions of new hectares. According to the Global Biodiversity Outlook (2010), in the period of 2003 to 2008, 75% of all protected areas established globally were in Brazil. Currently, the National System of Protected Areas (SNUC) is composed of 310 Federal, 506 State and 81 Municipal PAs, not accounting for the 973 privately owned protected areas that are certified by any of the three levels of government. The country has voluntarily established protected area coverage goals with the CDB: 30% for the Amazon region and 10% for each of the other biomes. The country has partially reached these coverage goals: 3% for Pampa, 7% for Caatinga, 8% for Cerrado, 9% for the Atlantic Rainforest, over 25% for the Amazon, and 2% for marine and coastal areas. However, additional effort is required in order to reach the newly established Aichi targets – COP Nagoya (targets nº 1, 11 e 20).

While the size of the SNUC is considerable, making these PAs decisive and effective instruments to protect the (globally and nationally important) biodiversity in Brazil is still an

enormous challenge. Most of the PAs outside the Amazon region are comprised of sustainable use areas that focus on regulating the use of natural resources. Conservation management effectiveness within strictly protected areas is variable. And while sustainable use areas offer a unique opportunity to integrate the productive use of natural resources with the biodiversity agenda, effectively managing these areas demands stability (economic, political and institutional), adequate staffing and funding, and a strong knowledge basis for management.

A comparative evaluation of the management effectiveness of protected areas in each biome, implemented by ICMBio/WWF in 2005-06 and 2010 (Protected Areas Management Effectiveness Information Module - RAPPAM), found a medium 48% effectiveness overall, and showed low scores for specific aspects of management, such as shortage of human and financial resources and a general lack of thorough communication and information sharing. This re-enforces the perception that effective conservation has to go beyond the creation of PAs, and focus on evaluating their conservation effectiveness in terms of how much of the Brazilian biodiversity is actually protected, and of the PAs' integration with other conservation strategies. Such an evaluation should link management to levels of protection and sustainability of conservation targets, as well as correlate the status of the targeted systems and populations with pressure factors, like landscape management and climate change projections.

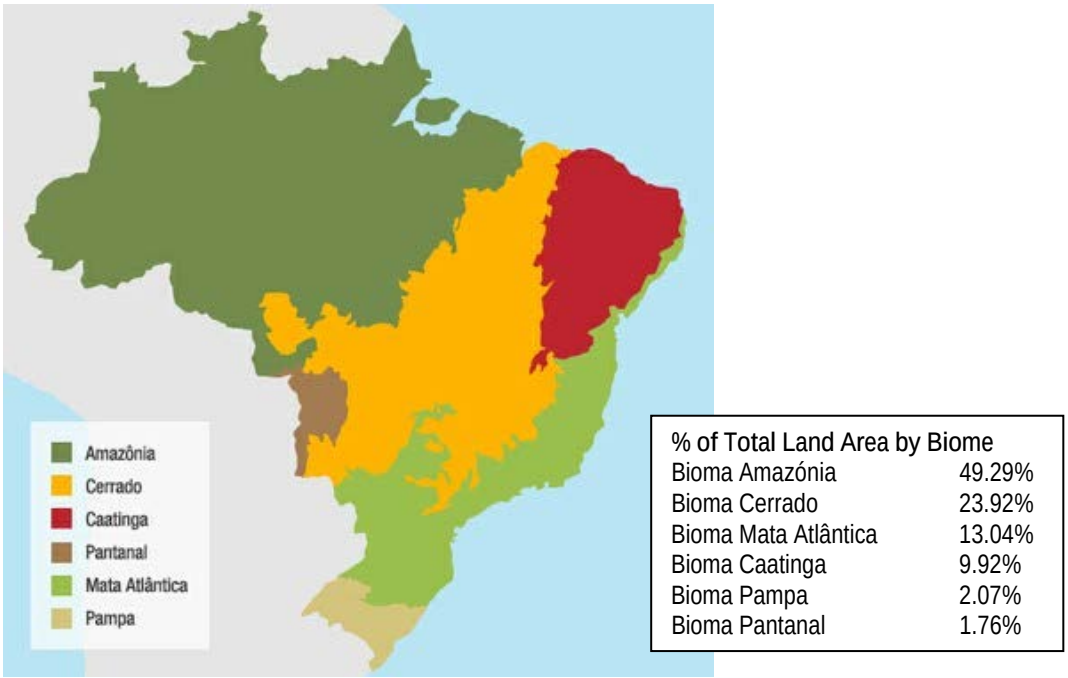

Figure 1. The biomes of Brazil

The three biomes that are the focus of this GEF project, namely Caatinga, Pampa and Pantanal (see Figure 1), are especially in need of attention and resources to leverage existing initiatives and harness effective conservation efforts. Protection of all three biomes is critical, as they contain valuable biodiversity that is under imminent threat from human and climate pressures. The Caatinga, a dryland system that dominates the Northeast of Brazil, is the only exclusively Brazilian biome and home to a host of endemic species[6], the Pampa, or southern lowlands, harbors unique and endangered open plains habitats, and the Pantanal is one of the world's largest freshwater wetland ecosystems, reason for which it has been recognized as a RAMSAR and a UNESCO World Heritage Site. In contrast to these biomes, the Amazon Region has

[6] According to the Almanaque Brasil Socioambiental 2008, 318 out of 932 plant species, 137 out of 240 fish species, at least 57 out of 154 reptiles and amphibians, and 3 out of 80 mammal species are endemic to the Caatinga.

received considerable attention over the years, including the GEF-supported ARPA project. The Atlantic Rain Forest has likewise seen a continuous effort to create and manage protected areas, among others with funding from the German and the US governments. And the Cerrado Biome is the subject of a current GEF project, with established targets for expanding protected areas and a special focus on creating strict protection units, as well as, more recently, a bilateral cooperation with the German government. Finally, the marine and coastal zones will be targeted by the GEF MAR initiative, also contributing to the creation of protected areas. Yet, to date, the Caatinga, Pampa and Pantanal, despite their ecological importance and significant exposure to human activities that are contrary to their natural vocation, have received comparatively scarce attention; a short-coming that the proposed GEF project aims to redress.

In addition to the conservation effectiveness of protected areas and the representativeness of the SNUC, the conservation status of endangered species also gives rise to concern. There have been significant improvements in some aspects, with an increase from 4% to 35% over the past three years in the percentage of Brazil's endangered species included in national action plans. Yet, the number of endangered species continues to increase. This situation is further complicated by the fact that many of Brazil's endangered species are not found within protected areas. Currently, the country recognizes 627 wildlife species as endangered (of which nine are thought to be extinct) and approximately 50% of the endangered species are not found within Conservation Units, while only 14% of the Conservation Units were created with special focus on the protection of endangered species.

The rising number of endangered species can be linked to the already alluded to significant human pressures from occupation and economic development in the Pampa, Pantanal and Caatinga. Development programs in the Pampa have introduced incompatible activities such as tree plantations and soy production for biofuel. The Pantanal supports a wide variety of economic activities, but its characteristic flood-and-drought regime is increasingly affected by human and climate impacts on hydrological cycles. And the Caatinga, a fragile semi-arid system, comprises one of the poorest and least-developed areas of Brazil, thus experiencing high level of resource extraction and degradation. These changes in land use are critical from a climate mitigation perspective, considering that, approximately 75% (~ 775,000 Gg) of annual CO_2 emissions in Brazil are due to land-change and forestry. Recent advances and climate change communications highlight the importance of lowering deforestation rates, adopting proper land use conversion practices and maintaining/restoring the carbon sink function provided by natural vegetation.

As a result of these pressures, the areas of native habitat in the three target biomes are now fragmented, endangering the viability of animal and plant species, and frequently compromising efforts to create a system of connected and integrated protected areas. Thus, there is a strong need for strategically restoring priority areas outside of protected areas (primarily private land holdings) and promoting sustainable land management practices, so as to reduce habitat fragmentation, recovery ecosystem services, enhance carbon stocks, and increase the resilience of these biomes to climate change disturbances.

Of particular and growing concern is the impact of fire. Being naturally subject to drought, the Caatinga, Pampa and Pantanal are succeptible to fires, yet the frequency and intensity of these events is set to increase with continued changes in land and water use, the impacts of climate change on rainfall patterns, and human encroachment of protected areas. As a natural element, fire regulates succession and enhances the heterogeneity of habitats. However, with increased frequency of occurrence due to human activity, it leads to losses in biodiversity and carbon stocks. The ecology of plant species in these biomes is adapted to long-term fire regimes, with a highly evolved underground energy storage system in roots and other structures. Naturally occurring fires are a key element for depleting available organic matter *above ground* and

regulating succession amongst different forest and grassland formations. Yet, manmade fires in the dry season stress plant species into depleting their *underground* reserves to restore the burned structures, effectively reversing any carbon sinking properties. Reinstating the natural fire regime through prescribed management measures should ensure that underground carbon stocks are maintained, the biomes' carbon sink functions restored, and carbon emissions lowered through less intense fires.

All these issues contribute directly to reducing the resilience of the three biomes to withstand not only the country's growing demand for natural resources, but also to global climate change. And while the regulatory, economic and institutional framework exists for starting to address these issues, there are fundamental pieces missing that would enable the effective protection of the Caatinga, Pampa and Pantanal. The Ministry of Environment (MMA), responsible for the creation and maintenance of Protected Areas, the Chico Mendes Institute of Biodiversity (ICMBio), linked to the MMA and responsible for managing federal Conservation Units and threatened species, and the Jardim Botánico do Rio de Janeiro, a key actor in the management of threatened flora in Brazil, are collaborating to improve the conservation status of the three target biomes. Baseline activities in this context focus on management of some existing protected areas, restoration of certain degraded areas in the vicinity of existing PAs, so as to reduce edge effects and habitat fragmentation (since these areas are predominantly private, participation of landowners is pivotal), and efforts to improve the management and viability of threatened populations. The latter initiative is conducted in conjunction with KfW, in the context of the CBD's LifeWeb platform, which focuses on improving management effectiveness of PAs and surrounding areas, and increasing biological monitoring of endangered species. Furthermore, MMA and IADB are preparing a loan project to strengthen the National Environmental System (SISNAMA, according to its abbreviation in Portuguese), which will contribute to the current proposal by addressing the lack of communication and information sharing that was identified by the aforementioned PA Management Effectiveness study. While these efforts are important steps in reducing biodiversity loss and reducing GhG due to land use change in the Caatinga, Pampa and Pantanal biomes, they are not far-reaching and comprehensive enough to achieve a quantum leap in protecting these biomes and the threatened species associated with them.

B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund/NPIF) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

To tackle the issues described in the previous section, this proposal will gather and generate the information and tools necessary to strengthen the SNUC and promote sustainable management of adjacent forest and non-forest lands. An assessment of PA effectiveness and endangered species conservation status will be the foundation upon which new protected areas in the Caatinga, Pampa and Pantanal will be designed. Additionally, the assessment process will also identify and model main threats, main conservation opportunities and provide distribution maps for endangered species. The issue of habitat fragmentation in the three biomes will be addressed through new mosaic approaches, combining the establishment of protected areas with sustainable management in surrounding buffer zones and productive landscapes.

The management of protected areas (newly created and existing) is to be enhanced by developing and implementing protocols for advanced fire management, land restoration tools and action plans for *in situ* biodiversity monitoring, thus ensuring the improvement of degraded landscapes and reducing the impact of natural and manmade events on ecosystems and endangered species. To promote private landowner and local community participation in implementing management protocols and tools in the areas surrounding PAs, the project will

provide technical assistance to enable participants to apply to existing Payment for Environmental Services (PES) schemes, which provide some direct benefits for landowners.

PROJECT OBJECTIVES

The global objective of the proposed project is to improve the effective conservation of globally significant ecosystems and endangered flora and fauna species, as well as restore degraded landscapes and enhance carbon stocks in priority areas of the Caatinga, Pampa and Pantanal biomes, through expanding and consolidating the National System of Protected Areas (SNUC) and promoting sustainable management of adjacent forest and non-forest lands.

The specific objectives of the proposed project are:

- To support the creation of protected areas in the Caatinga, Pampa and Pantanal Biomes;
- To increase the effectiveness of PA conservation by implementing advanced management practices, including fire protection, *in situ* biodiversity monitoring, sustainable financing and improved planning tools, in PAs and adjacent lands;
- To enhance carbon stocks through fire management practices and restoration of degraded priority landscapes surrounding core protected areas;
- To promote sustainable forest management practices in forest areas surrounding core protected areas;
- To generate, enhance and apply knowledge about endangered species and their management as an integral part of all conservation strategies outlined in the project.
- To create strong community and stakeholder support for conservation activities in the three target biomes through a broad communication program and effective collaboration with complementary initiatives.

The proposed project encompasses five components.

Component 1: Creation of new Protected Areas (PAs). US$ 9.00 Million
This component will support the design and proposal of new protected areas with special focus on the Caatinga, Pampa and Pantanal Biomes, including areas regarded of extreme importance for the protection of endangered species currently without or with insufficient protection. The proposal will consider a mosaic approach involving different categories of protected areas, incorporating the PA category "environmental protection areas" (APA[7]) as a tool for integration of landscape management strategies. In addition, sustainable financing plans will be prepared for a subset of the new PAs (selected by priority and financing potential). The work of Component 1 will be guided and supported by activities in Component 4, namely the assessment of PA effectiveness; species risk assessments, species-specific guidelines for PA design and management, and Action Plans for endangered species.

Component 2: Management of PAs and Adjacent Areas. US$ 66,50 Million
Activities under this component focus on effectively managing 14 existing PAs and surrounding forest and non-forest lands, and are divided into two subcomponents:

2.1 Effective conservation management. Departing from the findings of the assessment of PA effectiveness and endangered species conservation status (Component 4), prioritized protected areas will be provided with necessary management infrastructure and equipment (related to access, monitoring, and enforcement). Management plans and strategies will be prepared, with special focus on the development of fire management plans, in-situ biodiversity monitoring

[7] APAs are a conservation category that permits sustainable land use, aiming to balance nature conservation with compatible productive uses of natural resources.

plans, and sustainable financing strategies.

2.2 Fire management. This subcomponent will support the development and/or adaptation of protocols and monitoring strategies for good fire management in selected protected areas, and the acquisition of proper and necessary equipment for these activities. Furthermore, in order to maximise the effectiveness of fire management, these protocols will be implemented in collaboration with private landowners in selected areas adjacent to PAs. Implementation will focus on four sites, where groups of landowners will receive technical assistance for implementing appropriate fire management practices, as well as for helping them access existing PES schemes[8] that reward conservation efforts and would compensate owners for potential economic costs associated with changing to more sustainable land use practices.

Component 3: Restoration of deteriorated landscapes in priority areas. US$40,47 Million
This component will support the strategic restoration of deteriorated landscapes in priority forest and non-forest lands adjacent to PAs, so as to enhance carbon stocks, apply sustainable management practices in existing forests, and promote structural connectivity and gene flow between PAs via the restored landscapes. To prioritize areas for restoration, the landscapes are to be surveyed and assessed for their potential to contribute to these three aims, including the identification of focal private properties. On the basis of this assessment, land use plans will be prepared for identified priority sites, and programs to implement sustainable management practices in these sites will be developed and implemented. Given that targeted areas will be outside of PAs, the activities financed by this Component are expected to reduce current carbon emissions from these lands (due to incompatible land use practices) and increase carbon stocks through reforestation[9]. In all restoration areas, the fire management protocols developed in Component 2 will be implemented as well, so as to minimize this risk factor. This is complemented through sustainable forest management practices that will aid in ensuring the health and long-term maintenance of the restore areas.

Component 4: Monitoring of flora and fauna extinction risks. US$ 31,00 Million
This component will provide the foundational assessment for the other components: an assessment of PA effectiveness in meeting conservation goals, including in protecting and conserving endangered species. Furthermore, the Component will focus on the monitoring of endangered species, and provide inputs to other project components, especially Component 1. For this purpose, the foundational assessment will include the application of IUCN criteria and categories to assess species' extinction risk, and will follow a nationally-established protocol that culminates in a consultation workshop led by ICMBio and the Jardim Botânico do Rio de Janeiro (JBRJ). The workshops will determine the conservation status, pressures, extinction risks and vulnerability maps. This information will feed the development of Action Plans for selected species, including appropriate biological monitoring, as well as provide critical inputs for creating new PAs (Comp 1) and improving PA management planning (Comp 2) through modeling of the effectiveness of PAs in protecting endangered species and preventing biodiversity loss.

Component 5: Integration and community relations. US$ 7,65 Million
This component will fund the implementation of effective collaboration mechanisms with complementary initiatives, as well as a comprehensive communication program. It is designed with a two-fold aim. First, to promote the integration of the project with related initiatives, thus

[8] To support adherence to the guidelines on Payment for Ecosystem Services schemes issued by the STAP, the project will evaluate the existing schemes for their consideration of the aspects covered by the guidelines.

[9] Note that the project is not proposing to implement a carbon monitoring system. Rather, it will take advantage of initiatives already in implementation to calculate the tones of CO2eq avoided and sequestered through the project. One would be the Projeto de Monitoramento do Desmatamento dos Biomas Brasileiros por Satélite. Another one would be INPE's program to monitor burnings through heat spots.

maximizing the impact of the limited resources that have and are being invested in the three target biomes, as well as promoting synergies and good stakeholder relations with other initiatives in the areas of intervention. Second, the Component invests in establishing strong local support for the interventions financed by the project, to increase the long-term success of these efforts. This second element is of particular relevant for the activities included in Comp 1, given that the creation of new protected areas often meets with some resistance from affected parties. While today's processes for PA creation in Brazil are highly participatory and consensus-driven, thereby minimizing the risk of negative effects on residents and users of areas considered for protection (see also Section B.4.), strong and broad support from local communities is essential for the success of newly created areas. The community relations activities of Component 5 focus on promoting a good information flow with stakeholders in the areas of intervention of the project.

Expected Results. The support of the proposed GEF funding will contribute significantly to the effectiveness of PA protection, strengthen existing efforts to protect endangered species and attract additional financing from public and private entities for three currently under-attended biomes. It is anticipated that this project will result in:

- Improved representativeness of major biomes in SNUC, by expanding PAs for Caatinga, Pantanal and Pampa, and improved effectiveness of conservation management and endangered species management in new and existing PAs for these biomes; and
- Sustainable management of forest and non-forest areas connected to PAs, thereby enhancing carbon stocks, improving management of existing forest and reducing habitat fragmentation in the three target biomes.

These results will generate **global environmental benefits** by reducing the loss of biodiversity and carbon stocks from three ecologically rich biomes that face imminent threats from climate change and expansion of unsustainable agro-forestry and other economic activities.

Considering best available information, a preliminary estimate of the potential carbon mitigation benefits of this project indicate the creation of new protected areas could result in 0.02 MtCO2 of emissions prevented by the end of the project and a further 2.16 MtCO2 in the first ten years after project conclusion. In addition, carbon stock gains by the end of the project are estimated to be 0.24 MtC, and 15.76 MtC by 2028. The analysis also shows the high cost, in term of stock losses and emissions from conversions, under the Business as Usual Scenario[10]. A more detailed analysis of the project's carbon mitigation potential will be elaborated during project preparation.

By combining focal area objectives and funding in this proposal, it is possible to complement protected area focused activities (BD funding) with sustainable management of forests (SFM funding) and restoration of degraded areas and enhancement of carbon stocks thru sustainable land management (CC funding) outside of PAs. Jointly, these activities provide cumulative benefits for local communities, biodiversity conservation and climate mitigation that would be difficult to achieve through a single focus area project, as is illustrated by fire management, which requires coordinated interventions of various types within and beyond PAs.

Executing Mechanism. The technical execution of this project will be lead by the Ministry of Environment, with collaboration from the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio) and the Jardim Botanico do Rio de Janeiro (JBRJ). ICMBio is headquartered in Brasilia but represented throughout Brasil via 11 Regional Coordination Offices, thereby managing the 310 existing federal Conservation Units (CUs) and 11 Research

[10] For additional details on assumptions and values used, please consult the attached spreadsheet

and Conservation Centers. This regional presence, as well as the established relationships in the context of existing CUs will greatly facilitate supervision of the present project. With a view to maximizing the agility of execution, the most suitable financial management mechanism for the project is still being developed[11]. In addition to the principal executing partners already mentioned, the project will also work in close coordination with the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA), which is the principal national environmental enforcement agency, as well as the environmental secretariats of the States that will be involved in the project. (The latter will be strongly supported through the execution of the SISNAMA project, which specifically focuses on National-State level coordination.)

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF."

The integrated management and harmonization of cross-sector policies for biodiversity conservation and climate change sought within this project will (a) benefit the governance process as a whole and in particular the creation and implementation of public conservation policies; (b) reinforce the provision of ecological services that are important for national development and the well-being of local communities; (c) promote capacity building at local levels in support of conservation and sustainable management practices; and (d) ultimately contribute to the reduction of carbon emissions through the protection of carbon stock and the reinstatement of the carbon sink effect of restored areas. The three target biomes provide important sustenance resources to some of Brazil's poorest communities; increasing the long-term health and viability of these biomes will therefore also bolster the long-term provision of essential resources to these communities. These same biomes represent vegetation types with particular importance to climate regulation, not only contributing to water regulation and replenishment, but also, when close to natural conditions, capturing carbon and storing living material above and underground. The project will furthermore benefit local communities by improving fire management, thereby reducing the incidence of highly destructive, uncontrolled fires in the project area. A more detailed analysis of these anticipated socio-economic benefits will be conducted during project preparation, as part of an economic evaluation of the project, as well as in the context of designing the project's impact evaluation. While the project does not include any activities specifically targeted at promoting the participation of women in conservation efforts, the activities financed through the project will enable equal access, regardless of gender.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

[11] Financial execution by a national government agency without fiscal autonomy would imply the internalization of project resources in the National Budget, which is likely to have significant impact on the rhythm of execution. Among the alternatives under consideration is collaboration with a government-associated by financially autonomous environmental foundation, analogous to the role of FUNBIO in the GEF MAR project.

Political and electoral interests influence the rigidity of environmental protection. The new government, which took office in January 2011, has committed to actions for maintaining biodiversity and natural resources. However, despite the federal government support for this project, there is a political risk associated with the lack of commitment of state and municipal governments. While conservation needs will be the key criteria in selecting priority sites, political factors, where they would clearly prohibit an effective implementation of the project, will be taken into consideration.

The creation of new protected areas can meet with resistance from local communities, especially due to concerns that economic production, livelihood activities or cultural assets will be impacted, and as such triggers certain safeguard measures. However, participatory mechanisms required by Brazilian law and Bank policy are designed to ensure that local and traditional communities' rights are respected, and potential impacts on cultural resources and indigenous and traditional people through possible restrictions on the use and access to natural resources prevented. To mitigate these potential risks further, consultations with affected communities and an environmental assessment will be carried out. The project will adopt a highly participatory approach to the process of PA creation (through the activities included in Component 5). This approach will emphasize consensus and community participation in PA management, improve PA design to conform mosaics of protection and seek opportunities for local communities to benefit from enhanced conservation.

Participation of the private sector in this project takes two forms: i) the co-financing, which will be provided by interested, but not necessarily local organizations through existing financial mechanisms that allow (and incentivize) private businesses to contribute to conservation efforts (see also B.5); and ii) the private landholders in areas adjacent to PAs whose partnership is sought for carbon stock enhancement and SFM activities. In the former case, non-participation from the private sector does not constitute a risk, since financial contributions could, should it be necessary, be substituted through existing environmental compensation funds and mitigation arrangements. Non-participation in the latter case is more critical, underlining the importance of Component 5 to establish strong local support for the project. In addition, the provisions of technical assistance to access existing PES schemes, compensating economic costs incurred through changes in land use practices, should further reduce barriers to participation by interested private partners.

Regarding the potential for increased GHG emissions from possible leakage outside of the project boundaries, it is not anticipated that this will constitute a risk in the present project. The GHG reductions sought by the project will be attained through applying improved fire management protocols and sustainable forest management practices in collaboration with private landowners. While better land management in the three fragile target biomes is anticipated to benefit landowners in the medium- to long-term (especially through a reduction in uncontrolled fires), the project will provide technical assistance for accessing PES schemes that would compensate landowners for potential short- to medium-term costs resulting from the change in practices. As such, the project should neither directly nor indirectly incentivize leakage outside the project area.

Thus, based on current information, the overall risk level of the project is medium-low.

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

The major stakeholders involved with the project are the Ministry of Environment (MMA), the Brazilian Institute of Environment (IBAMA), the Chico Mendes Institute of Biodiversity (ICMBio - responsible for protected areas and threatened fauna), the Jardim Botanico do Rio de

Janeiro (JBRJ – responsible for threatened flora), the academic sector and voluntary State Environmental Organizations - OEMAs. Technical and financial overseeing of the project will be assured by participation of all these entities and will be established within one of the Ministries running committees.

So as to promote participation of stakeholders from the private sector and civil society organizations, MMA will structure, within the National Commission for Biodiversity (CONABIO), a special oversight committee that allows for such participation. It is expected that the negotiations for the adoption of Aichi Targets, which mobilized a greater interaction with CONABIO, should bolster the interest and participation of NGOs and private sector groups in the Project

Additionally, the project will seek private sector involvement through existing financial mechanisms that target climate change and biodiversity loss, which have grown out of the adoption of the Equator Principles and zero net loss policies by major banks, investment firms, mining and power generation companies and major contractors. In the context of these mechanisms, the project will promote investments in conservation and restoration of carbon stocks.
Local communities will have the opportunity to become involved in the project through the community relations activities of Component 5, through the consultation processes that form an integral part of creating new PAs and through participating in the activities taking place in areas outside the PAs.

B.6. Outline the coordination with other related initiatives:

GEF TER will be developed and implemented in close coordination with complementary projects coordinated by the Ministry of the Environment (MMA). The project is expected to be articulated with the following GEF-funded projects: (i) National Biodiversity Mainstreaming and Institutional Consolidation Project (PROBIO II); (ii) Amazon Region Protected Areas (ARPA II), and (iii) GEF Cerrado, as well as other relevant bilateral and multilateral initiatives providing management tools for protected areas and guidance for endangered species protection, especially as GEF MAR (in preparation) and the CBD LifeWeb platform.

The proposed project is closely related to the umbrella-project "Consolidation of the National System of Protected Areas" and designed to reinforce some lines of work of that project, while also promoting supplementary activities. The two projects complement each other in several key aspects, particularly financial sustainability mechanisms, biodiversity monitoring and management and social outreach. To maximize synergistic effects, coordination between projects will focus on permanent revenue, generating mechanisms and financial sustainability of the SNUC, as well as on initiatives with productive sectors that benefit populations in sustainable use PA and buffer zones.

Since all of the above on-going and potential projects are supervised by the same group within the MMA, coordination between these projects, despite their broad scope, is greatly facilitated. As indicated in Footnote 9, the project will furthermore take advantage of on-going national initiatives to establish carbon inventories and implement monitoring methodologies. These initiatives are lead by the Ministry of Science, Technology and Innovation, thus requiring a suitable coordination mechanism, which will be determined during project preparation.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

IADB is contributing U$15 million in co-financing through a hard loan that is currently being prepared by the Ministry of Environment (MMA) and IADB, focused on improving the effectiveness of the National Environmental System (SISNAMA). Strengthening of the National System of Conservation Units (SNUC) as one of the focal areas of this operation, a focus that aligns well with the objectives of the present project, and executing both projects side by side will be mutually reinforcing.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The proposed project fits squarely with the Bank's Country Strategy and Programming with Brazil. The Strategy highlights the need for ecosystem protection and for balancing the development of productive sectors with actions to minimize negative externalities from these developments, impacting the environment. The Strategy further recommends concentrating Bank financial and technical support related to natural resources management on creating incentives for ecosystem conservation and strengthening institutional capacity across the different levels of governance. The first target for the Strategy's Results Matrix as related to natural resources management is to "promote the protection of terrestrial, coastal and marine ecosystems" (Indicator: Increase in number of protected areas as part of the SNUC with management plan in execution).

IADB is currently collaborating with Brazil on various programs that are relevant to the proposed project, including the implementation of a U$162 million project aimed at conserving important areas of Mata Atlântica in the State of São Paulo, preparations to replicate this project in the northern coastal areas of the State, execution of a U$10 million project promoting the more effective conservation of four priority protected areas in the State of Bahia, the preparation and execution of seven State-level tourism projects that each include components for the adequate conservation and management of natural areas that provide major tourism attractions, as well as the preparation and execution of several technical cooperations on climate change mitigation.

Given the considerable geographic scope of this project, IADB's permanent presence in Brazil, with three full-time technical specialists dedicated to environmental and forestry projects, a full-time climate change specialist, and additional staff that assists in the operational aspects of project preparation and execution, will be a significant advantage. (The IADB team leader for the project is located at the Representation in Brasilia.)

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Rodrigo Martins Vieira	General Coordinator for External Financing	Ministry of Planning, Budget and Management – Secretariat for International Affairs	03/30/2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
Michael Collins IADB		04/03/2012	Annette Killmer	+55.61.3317.4106	annettek@iadb.org

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.

Safeguard Policy Filter Report

Operation Information

Operation		
BR-G1004 GEF TER - Consolidation of SNUC and Enhanced Flora and Fauna Protection		
Environmental and Social Impact Category	High Risk Rating	
C	{Not Set}	
Country	Executing Agency	
BRAZIL	{Not Set}	
Organizational Unit	IDB Sector/Subsector	
Infrastructure & Environment	BIODIVERSITY AND PROTECTED AREAS CONSERVATION	
Team Leader	ESG Lead Specialist	
ANNETTE BETTINA KILLMER	{Not Set}	
Type of Operation	Original IDB Amount	% Disbursed
Investment Grants	$0	0.000 %
Assessment Date	Author	
7 Apr 2016	annettek Team Leader	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	{Not Set}	
QRR (Estimated)	29 Aug 2016	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

Safeguard Policy Filter Report

Safeguard Policy Items Identified

B.1 Bank Policies (Access to Information Policy– OP-102)

The Bank will make the relevant project documents available to the public.

B.2 Country Laws and Regulations

The operation is in compliance with laws and regulations of the country regarding specific women's rights, the environment, gender and indigenous peoples (including national obligations established under ratified multilateral environmental agreements).

B.3 Screening and Classification

The operation (including associated facilities) is screened and classified according to its potential environmental impacts.

B.6 Consultations

Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation by women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.

B.7 Supervision and Compliance

The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.

Potential Safeguard Policy Items

B.1 Bank Policies (Gender Equality Policy– OP-761)

The operation offers opportunities to promote gender equality or women's empowerment.

B.1 Bank Policies (Resettlement Policy– OP-710)

The operation has the potential to disrupt the livelihoods of people living in the project area of influence (not limited to involuntary displacement, see also Resettlement Policy)

B.4 Other Risk Factors

The borrower/executing agency exhibits weak institutional capacity for managing environmental and social issues.

Recommended Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.

Additional Comments

Safeguard Screening Form

Operation Information

Operation		
BR-G1004 GEF TER - Consolidation of SNUC and Enhanced Flora and Fauna Protection		
Environmental and Social Impact Category	High Risk Rating	
C	{Not Set}	
Country	Executing Agency	
BRAZIL	{Not Set}	
Organizational Unit	IDB Sector/Subsector	
Infrastructure & Environment	BIODIVERSITY AND PROTECTED AREAS CONSERVATION	
Team Leader	ESG Lead Specialist	
ANNETTE BETTINA KILLMER	{Not Set}	
Type of Operation	Original IDB Amount	% Disbursed
Investment Grants	$0	0.000 %
Assessment Date	Author	
7 Apr 2016	annettek Team Leader	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	{Not Set}	
QRR (Estimated)	29 Aug 2016	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

Operation Classification Summary

Overriden Rating	Overriden Justification
Comments	

Conditions / Recommendations

Summary of Impacts / Risks and Potential Solutions

Disaster Risk Summary

Disaster Risk Level

Disaster / Recommendations

Disaster Summary

Details

Actions

ENVIRONMENTAL AND SOCIAL STRATEGY

Background

1.1 This document presents the Environmental and Social Strategy (ESS) for the preparation of the Global Environment Facility (GEF) Project *Consolidation of the National System of Conservation Units (SNUC) and Enhanced Flora and Fauna Protection – GEF Terrestre* (BR-G1004).

1.2 The objective of the project GEF Terrestre is to improve the effective conservation of globally significant ecosystems and endangered flora and fauna species, as well as restore degraded landscapes and enhance carbon stocks in priority areas of the Caatinga, Pampa and Pantanal biomes, through expanding and consolidating the National System of Protected Areas (SNUC) and promoting sustainable management of adjacent forest and non-forest lands.

1.3 The project focuses on the Caatinga, Pampa and Pantanal biomes (see Figure 1), because are especially in need of attention and resources to leverage existing initiatives and harness effective conservation efforts. Protection of all three biomes is critical, as they contain valuable biodiversity that is under imminent threat from human and climate pressures.

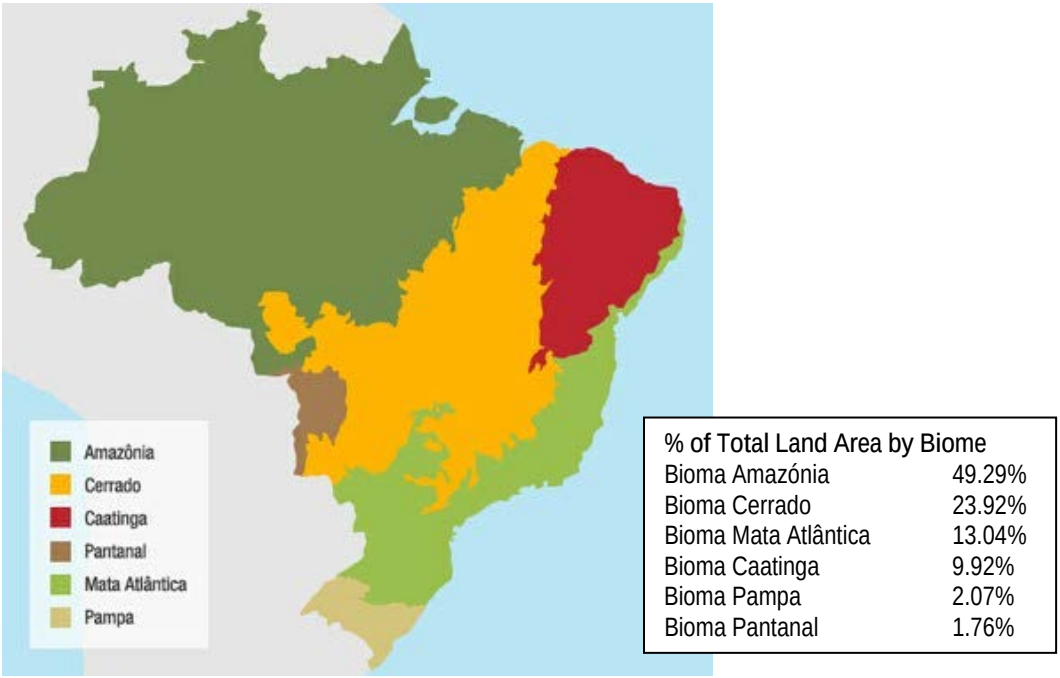

Figure 1. The biomes of Brazil

1.4 In contrast to these biomes, the Amazon Region has received considerable attention over the years, including the GEF-supported ARPA project. The Atlantic Rain Forest has likewise seen a continuous effort to create and manage protected areas, among others with funding from the IDB-loan *Recuperação Socioambiental da Serra do Mar e Sistema de Mosaicos da Mata Atlântica* (BR-L1241; in execution), the IDB-supervised GEF Project *Recovery and Protection of Climate and Biodiversity Services in the Southeast Atlantic Forest Corridor of*

Brazil (BR-G1003; in execution) and the German and US governments. The Cerrado Biome has been the subject of a GEF project, as well as a bilateral cooperation with the German government. Finally, the marine and coastal zones are targeted by the GEF MAR initiative (in execution with supervision by the World Bank). Yet, to date, the Caatinga, Pampa and Pantanal, despite their ecological importance and significant exposure to human activities that are contrary to their natural vocation, have received comparatively scarce attention; a short-coming that the proposed GEF project aims to redress.

1.5 The GEF Terrestre is structured along five components:

a. Component 1: Creation of new Protected Areas (PA's). This component will support the design and proposal of new protected areas in the Caatinga, Pampa and Pantanal biomes, including areas regarded of special importance for the protection of endangered species currently without or with insufficient protection. In addition, sustainable financing plans will be prepared for a subset of the new PAs (selected by priority and financing potential). The work of Component 1 will be guided and supported by activities in Component 4, first and foremost the assessment of PA effectiveness.

b. Component 2: Management of Existing Protected and Adjacent Areas. Activities under this component focus on effectively managing 14 existing PA's and surrounding forest and non-forest lands, and are divided into two subcomponents:

   i. Sub-component: Effective conservation management - Departing from the findings of the assessment of PA effectiveness and endangered species conservation status (Component 4), management plans and strategies will be prepared, with special focus on the development of fire management plans, in-situ biodiversity monitoring, and prioritized protected areas will be provided with necessary management infrastructure and equipment (related to access, monitoring, and enforcement).

   ii. Subcomponent: Fire management - This subcomponent will support the development and/or adaptation of protocols and monitoring strategies for good fire management in selected protected areas, and the acquisition of proper and necessary equipment for these activities. Furthermore, in order to maximise the effectiveness of fire management, these protocols will be implemented in collaboration with private landowners in selected areas adjacent to PA's.

c. Component 3: Restoration of Deteriorated Landscapes in Priority Areas. This component will support the strategic restoration of deteriorated landscapes in priority forest and non-forest lands adjacent to PAs, so as to enhance carbon stocks, apply sustainable management practices in existing forests, and promote structural connectivity and gene flow between PAs via the restored landscapes.

d. Component 4: Monitoring of Flora and Fauna Extinction Risks. This component will provide the foundational assessment for the other components: an assessment of PA effectiveness in meeting conservation goals, including in protecting and conserving endangered species. Furthermore, the Component will focus on the monitoring of endangered

species, and provide inputs to other project components, especially Component 1.

e. Component 5: Integration and Community Relations. This component will fund the implementation of effective collaboration mechanisms with complementary initiatives, as well as a comprehensive communication program. It is designed with a two-fold aim. First, to promote the integration of the project with related initiatives, thus maximizing the impact of the limited resources that have and are being invested in the three target biomes, as well as promoting synergies and good stakeholder relations with other initiatives in the areas of intervention. Second, the Component invests in establishing strong local support for the interventions financed by the project, to increase the long-term success of these efforts.

1.6 Considering that the proposed project focuses on improving the protection of ecosystems and species that are currently experiencing adverse pressures, and that these improvements include the creation of new areas as well as initiatives to render land-use practices in areas adjacent to prioritized protected areas more environmentally compatible, the principal focus of the project's Environmental and Social Strategy (ESS) is on ensuring an adequate management of social aspects, that accompanies the proposed environmental improvements.

Safeguard Classification and Potential Policy Items

1.7 The project has been classified as "C" in accordance with the Environment and Safeguard Compliance Policy (OP-703) and the safeguard screening tool. Given the risks and potential impacts identified to date, the screening process highlighted the following potential safeguard policy items, based on the fact that current information is insufficient to determine with certainty whether the highlighted issues may or may not apply within the context of the proposed project (more information is provided in subsequent paragraphs):

a. ***Gender Equality Policy*** (OP-761): The operation may offer opportunities to promote gender equality or women's empowerment.

b. ***Resettlement Policy*** (OP-710): The operation may have the potential to disrupt the livelihoods of people living in the project's area of influence (not limited to involuntary displacement).

c. ***Other Risk Factors***: The borrower/executing agency may exhibit weak institutional capacity for managing environmental and social issues.

1.8 To gather the necessary information to definitively define these three aspects, a consultant with expertise in social communication, gender equality and resettlement issues has been contracted to prepare a Social Management Plan (despite the project's "C" classification) and design Component 5 of the project. Furthermore, an institutional assessment of the executing agency, FUNBIO, will be conducted, analyzing among other aspects the organizations capacity for managing environmental and social issues. Considering that the executing agency has prior experience executing World Bank projects of comparable or greater complexity, the project team's expectation is that the capacity assessment will be favourable.

Environmental and Social Context

1.9 As states in the project's general objective, the focus of the GEF Terrestre is on the Caatinga, Pampa and Pantanal biomes. By area, these three biomes are relatively small compared to Brazil's other terrestrial biomes: all three together are approximately the size of the Atlantic Forest biome, which in turn is considerably smaller than the Cerrado and roughly ¼ of the Amazon biome's territory. Notwithstanding, square kilometer by square kilometer, these three biomes have no reason to hide behind their more expansive cousins in terms of ecological or socio-cultural importance, as outlined in the following paragraphs.

1.10 **Caatinga**. The Caatinga, a semi-arid region that dominates the Northeast of Brazil, is the only exclusively Brazilian biome. The Caatinga biome consists primarily of xerophyte shrubland and thorn forest, and covers the northeast portion of Brazil, including all of the state of Ceará, large portions of Piauí, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, and Bahia, and small areas of eastern Maranhão and northern Minas Gerais. The Caatinga biome has a total extension of 844,453 km2, equivalent to 9.92% of Brazil's total land area.

1.11 Precipitation in the Caatinga is highly irregular in both time and space, and the biome presents several extreme climate characteristics compared to other regions of Brazil: the highest solar radiation and mean annual temperature, the lowest levels of relative humidity and pluviometric precipitation, and elevated rates of evapotranspiration.

1.12 Partly as a result of these extreme conditions, the Caatinga is surprisingly rich in biodiversity and home to a host of endemic species. The Ministry of Environment records 178 species of mammals, 591 of birds, 177 of reptiles, 79 species of amphibians, 241 fish species and no less than 221 species of bees[1]. Much of this biodiversity is endemic to the Caatinga: 318 out of 932 plant species, 137 fish species, at least 57 reptiles and amphibians, and 3 mammal species[2]. Yet, only 7.7% of the Caatinga is legally protected, 6.3% through Environmental Protection Areas (APA by its Brazilian acronym), which are sustainable usage conservation units with generally rather low levels of environmental restrictions, at least in practice. A further 0.2% are protected through other forms of sustainable usage conservation units and 1.2% are protected through 34 conservation units that grant integrated protection (principally Ecological Stations and Parks)[3].

1.13 At the same time, the biome experiences elevated levels of anthropic pressures, exerted predominantly by the approximately 27 million persons living within the region, most of them socio-economic conditions that imply a significant dependency on the natural resources for sustenance and fire wood. The illegal and unsustainable consumption of fire wood, for both domestic and industrial purposes, together with overgrazing and conversion of natural areas to pasture and agricultural land has led to the deforestation of 46% of the biome's total area[4]. Given this context, any sustainable conservation strategy will have to combine the stronger and more effective protection of priority areas with promoting sustainable use alternatives of the Caatinga's natural capital.

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1 MMA (2012). Caatinga. Available at: http://www.mma.gov.br/biomas/caatinga
2 Almanaque Brasil Socioambiental (2008).
3 IBGE (2004). Mapa de Biomas e Vegetação. www.ibge.gov.br/home/presidencia/noticias/21052004biomashtml.shtm
4 MMA (2012). Caatinga. Available at: http://www.mma.gov.br/biomas/caatinga

1.14 **Pampa**. The Pampas are fertile grassland-dominated lowlands covering more than 750,000km^2 in Argentina, Uruguay and Brazil. Within Brazil, the Pampa is restricted to, but also dominates, the southernmost state, Rio Grande do Sul, occupying 176,496km^2 (or 63%) of its territory, equivalent to 2.07% of Brazil's total land area[5].

1.15 The biome, while lying in the South Temperate Zone, between latitudes 28º00'S and 34º00'S, experiences both subtropical and temperate climates[6]. Annual precipitation averages vary from 1,250–2,000mm with a relatively uniform distribution throughout the year[7]. However, temperature varies significantly during the year, creating four well-characterized seasons[8].

1.16 By virtue of its biogeological age, the Pampa biome presents a high level of biodiversity, with an estimated 3,000 plant species (including over 450 grasses), 500 species of birds and 100 species of mammals, and a diversity of endemic species[9]. In addition, the Pampa makes an important contribution to carbon sequestration and erosion control, as well as being a source of genetic diversity for several species that play a vital role in food security. Yet, only 2.7% of the Brazilian Pampa is legally protected, 2.4% through just 3 sustainable usage APA's. Only 638km^2 enjoy integrated protection in a context of considerable anthropic pressures on the biome and its remaining natural vegetation.

1.17 The key economic activities in the *Pampa Riograndense* are extractive ones based on natural resources, mainly the natural grasslands: they are a source of forage for around 18 million animals—mainly cattle and sheep[10]. The progressive introduction and expansion of monocultures and exotic species-based pastures have also contributed to a rapid degrading and degeneration of natural Pampa landscapes: while it was estimated in 2002 that 41.3% of natural areas remained intact, this number had dropped to 36% in 2008[11]. An aggravating factor is the extremely sandy texture of the soil, due to its sedimentary rock origin, which makes the soils highly sensitive to water and wind erosion: inappropriate human activities have led to intense soil degradation, which in turn has contributed to losses of both biodiversity and socio-economic opportunities[12]. Similar to the Caatinga, a sustainable conservation strategy for the Pampa invariably needs to foment sustainable management of the biome's natural capital.

1.18 **Pantanal**. The Pantanal is an alluvial plain straddling Brazil, Bolivia and Paraguay and one of the world's largest freshwater wetland systems, reason for which it has been recognized on the Ramsar List of Wetlands of International Importance[13] and as a UNESCO World Heritage Site[14]. The Pantanal forms part

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5 IBGE (2004). Mapa de Biomas e Vegetação. www.ibge.gov.br/home/presidencia/noticias/21052004biomashtml.shtm

6 Wurdig Roesch, L.F. et al (2009). The Brazilian Pampa: A Fragile Biome. *Diversity*, 1: 182-198.

7 FAO: http://www.fao.org/ag/agp/agpc/doc/counprof/brazil/brazil.htm

8 Wurdig Roesch, L.F. et al (2009).

9 MMA (2012). Pampa. Available at: http://www.mma.gov.br/biomas/pampa

10 Carvalho, P.C.F & Batello, C. (2009). Access to land, livestock production and ecosystem conservation in the Brazilian Campos biome: the natural grasslands dilemma. *Livestock Science*, 120: 158-162.

11 CSR/IBAMA (2010). Monitoramento do Desmatamento nos Biomas Brasileiros por Satélite: Pampa. Available at: www.mma.gov.br/estruturas/sbf_chm_rbbio/_arquivos/relatorio_tecnico_monitoramento_desmate_bioma_pampa_72.pdf

12 Wurdig Roesch, L.F. et al (2009).

13 Ramsar (2016). List of Wetlands of International Importance. http://www.ramsar.org/sites-countries/the-ramsar-sites

14 World Heritage List (2000). Pantanal Conservation Area. http://whc.unesco.org/en/list/999

of the *Alto Paraguai* Basin, the vast majority of which - an approximate area of 362,376km^2 - lies within Brazilian territory. Within Brazil, the catchment covers large areas of the federal states of Mato Grosso (7%) and Mato Grosso do Sul (25%), and consists of the Pantanal plain – equivalent to the Pantanal biome, with an approximate area of 150,355km^2 equivalent to 1.76% of Brazil's total land area - as well as the surrounding plateaus, reaching up to 1,200m in height, located in the Cerrado and Amazon biomes[15]. These plateaus harbor the springs of the Pantanal rivers.

1.19 Precipitation in the *Alto Paraguai* Basin is highly seasonal, occurring primarily between October and March, and averaging 1,400mm annually[16], though with significant temporal and geographical variations. During the rainy season, flooding may inundate some 80% of the Pantanal plains[17].

1.20 The Pantanal biome's ecological importance is reflected by the number of species catalogued to date within its boundaries (fish: 263, amphibians: 41, reptiles: 113, birds: 463, mammals: 132) and the fact that it links the Amazon and the La Plata Basins, providing a biogeographical corridor for certain species of flora and fauna between the two largest river basins in South America. Yet, only 4.6% of the Pantanal plain is legally protected: 2.9% through conservation units that grant integrated protection (principally federal, state and municipal parks) and 1.7% through sustainable usage conservation units (all Private Natural Patrimony Reserves – RPPN by its Brazilian acronym)[18].

1.21 Despite its low level of legal protection, the Pantanal is still relatively well preserved. According to the Brazilian Biomes Monitoring Program by Satellite, using 2009 satellite imagery, the Pantanal biome retains 83.07% of its vegetation, having lost 15,31% of its area to deforestation (the remaining 1,62% corresponding to waterbodies)[19]. Yet, a 2009 area study points out that original vegetation in the plateaus has suffered more severe reduction, with only about half of the original area being preserved[20].

1.22 Deforestation is linked to two principal economic activities in the Pantanal: cattle ranching and mining. Other key activities of the Pantanal economy are tourism and fisheries, with sport fishing also being one of the prime tourism segments, together with ecotourism. Population density and urbanization are very low in the Pantanal biome: the only municipality reaching 100,000 inhabitants is Corumbá (MS)[21].

1.23 **Areas of Intervention**. Within the three priority biomes, the project team, during preparation, will define the specific areas of intervention: conservation units, adjacent areas and priority territories for enhanced protection of endangered species. For Component 1, the team will define a 'short list' of sites, whose total area will exceed the project's goal; this is to account for the uncertainties

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15 IBGE (2004). Mapa de Biomas e Vegetação. www.ibge.gov.br/home/presidencia/noticias/21052004biomashtml.shtm

16 Alho, C.J.R. & Silva, J.S.V. (2012). Effects of Severe Floods and Droughts on Wildlife of the Pantanal Wetland (Brazil) – A Review. In *Animals*, 2(4): 591-610. Available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC4494280

17 *Idem*

18 MMA (2010). Cadastro Nacional de Unidades de Conservação. www.mma.gov.br/areas-protegidas/cadastro-nacional-de-ucs.

19 Monitoramento dos Biomas Brasileiros: Pantanal (2012). www.mma.gov.br/estruturas/182/_arquivos/pantanal2002_2009_182.pdf

20 Area Studies – Brazil: Regional Sustainable Development Review (2009). Editor: Sanchez, L.E. Pg. 304.

21 IBGE. Banco de Dados do Estado – BDE (2011). Available at: http://www.ibge.gov.br/home/

involved in the process of declaring new conservation areas and the possibility that some priority sites may not be feasible to protect legally, not even within the timeframe of the project. For Component 2 and 3, the project will define the conservation units that will benefit from interventions, as well as a preliminary determination of priority areas for sustainable management in areas adjacent to the selected conservation units. For Component 4, the team proposed to use a territorial, rather than a single species-based approach to developing National Action Plans for the Conservation of Species at Risk of Extinction. These territories may or may not coincide with protected areas, but care will be taken to ensure a geographic linkage, to the extent practicable, with the conservation units prioritized for Components 1, 2 and 3. Component 5 will act in the areas of intervention defined for the other four components, with special focus on the areas corresponding to proposed new areas and activities outside protected areas.

1.24 **Project Beneficiaries**. The immediate beneficiaries of this project are the Ministry of Environment (MMA, by its Portuguese acronym), the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the Botanical Garden of Rio de Janeiro (JBRJ, by its Portuguese acronym).

1.25 Further direct beneficiaries of the project are the environmental secretariats of the 11 federal states with which the project will collaborate, the four communities that will receive support for implementing ecosystem services based economic activities (Component 2) and the property owners of the priority sites in areas adjacent to protected areas that will be reforested (Component 3).

Socio-Environmental Aspects and Impacts

1.26 **Positive Impacts**. By the nature of the project's interventions, it is expected that the proposed project will produce significant positive environmental impacts, chief among them:

a. More sustainable conservation of biodiversity and ecosystem services in the three target biomes (Caatinga, Pampa and Pantantal) through expansion of legally protected areas, improved management effectiveness of existing areas, strategic restoration of degraded areas and greater compatibility of management practices in nearby forest and non-forest areas;

b. Enhanced protection of endangered species of fauna and flora of the Caatinga, Pampa and Pantantal biomes through improved planning, implementation and monitoring tools;

c. Climate change mitigation benefits through preventing emissions from land-use practices and promoting gains in carbon stock related to restoration and improved fire management.

1.27 Moreover, the project is expected to create positive social impacts at a local and regional scale, either directly from working with local communities (Component 2 and 3) or indirectly, derived from the positive impacts on biodiversity and ecosystem services. In all three biomes, livelihoods are still quite dependent on natural capital (with resources/ecosystem services and related livelihoods varying considerably by biome), even though this dependency is not always explicit or acknowledged. Nevertheless, improvements in conservation of strategically-selected Caatinga, Pampa and Pantanal habitat is expected to render social benefits in the guise of impacts on the hydrological cycle (especially

in the Pantanal), soil stability and fertility (especially in the mountainous regions of Rio Grande do Sul and the areas benefitted by sustainable management practices and improved fire management), and increased resilience, including to plagues and diseases.

1.28 **Potential Negative Impacts**. The principal potential for negative social impacts derives from the declaration of new protected areas in those cases where such areas coincide with areas currently occupied and/or utilized for economic activities or sustenance. This potential risk will be analyzed further during project preparation and appropriate measures – beyond those already required by law - will be implemented through Component 5 of the project to minimize any adverse social impacts in this context.

1.29 As for potential negative environmental impacts, these are considered unlikely to occur. For completeness sake, however, it is worth mentioning that the protocols for both the restoration of the three target biomes as well as for the most effective fire management of each biome are less consolidated than they are for Brazil's other three terrestrial biomes. To mitigate any potential risks in this context, the project will invest in improving knowledge and experience with said protocols, including the pertinent monitoring that will allow for feedback and adjustments.

1.30 **Resettlement**. The project does not involve any resettlement of residences, economic activities or other aspects, as established in the Bank's Resettlement Policy (OP-710).

1.31 However, during preparation, the project team identified that the operation may have the potential to disrupt livelihoods of people living in the project's area of influence. This determination was made as a precaution, taking into consideration that one of the key results of the project is the legal declaration of 1,000,000 hectares of new protected areas. Data available thus far indicates that the areas proposed for declaration are not inhabited. Yet, due to the sheer extent of the area to be declared and the difficulty of accurately establishing, at any given point in time, the occupation or not of rural and/or remote areas in Brasil, the project team considers it prudent to establish a mechanism (within Component 5 of the project) that will be able to adequately address any potential resettlement issue that might arise during execution.

1.32 That said, it is worth highlighting that the legal framework for the SNUC establishes a rigorous process of consultations, which in practice minimizes the risk of negative social impacts of protected areas that have been or will be declared since the SNUC entered into force.

1.33 **Natural Disaster Risks**. It is unlikely that the project could be adversely impacted by natural hazards, either by direct impact on assets and operations or on the project's area of influence (Type 1 Disaster Risk Scenario; OP-704), and there is no basis to suspect that the operation could exacerbate risk to human life, property, the environment or cause economic disruption (Type 2 Disaster Risk Scenario).

1.34 The biomes targeted by the project have been known to be affected by severe droughts (especially the Caatinga, which is a dryland system), floods (especially the Pantanal, which is one of the world's largest freshwater wetlands) and storms (weather conditions in *Rio Grand do Sul* can be quite severe, with destructive wind-speeds, rains and hail). However, and in large part due to the frequency with which these events occur, it is not expected that project execution or results

will be adversely affected by these conditions. On the contrary, the restoration of degraded areas and improved management of forest and non-forest areas may actually contribute to diminish on a local scale the severity of droughts and floods.

1.35 **Climate Change Impacts.** It is not expected that the project will be negatively affected by climate change impacts, and may even contribute to improving the resilience of natural systems (and their associated social systems) to climate change within the project's areas of intervention.

1.36 The project is designed to contribute to gains in carbon stock and prevention of climate change-related emissions, thus providing carbon mitigation benefits. During project preparation, the team will refine a preliminary estimate of these carbon mitigation benefits.

1.37 **Indigenous Peoples and Afrodescendents.** While there are indigenous peoples' and afrodescendents' populations in several of the 11 States that will be collaborating in this project, it is not expected that the specific areas of intervention will include such populations. To analyze this aspect further, data will be gathered during preparation on the potential presence of indigenous peoples and afrodescendants in the project area. Should the preparation phase indicate that the project will impact an indigenous or *quilombolas* communities, the project will implement the appropriate measures, as stipulated by OP-765.

1.38 **Gender Equality.** At the project profile stage, the project does not propose any activities specifically targeted at promoting the participation of women in conservation efforts, even though the activities financed through the project will enable equal access, regardless of gender. However, this aspect will be re-analyzed during project preparation, taking also into consideration the strong emphasis place by the GEF on gender mainstreaming.

1.39 **Access to Information**. During the preparation phase, the project team will ensure that the Bank's Access to Information Policy (OP-102) is complied with.

Strategy for Project Preparation

1.40 The project team's strategy for avoiding, minimizing and mitigating any potential negative impacts and maximize the positive impacts of the GEF Terrestre centres on three activities to be carried out during project preparation: (i) elaboration of a technical data sheet on each conversation área (existing or proposed), including information on environmental pressures, socio-economic activities, habitation of the area and/or presence of indigenous, afrodescendent or traditional communities; (ii) design of a tailored integration and community relations program (Component 5), aimed at promoting strong relations with and collaboration in project activities by local populations; (iii) development of a Social Management Plan – despite the project being classified as "C" - that includes pertinent measures regarding gender equality and potential resettlement issues that might arise during project execution; this plan will form part of the project Operating Manual and Regulation.

INDEX OF COMPLETED AND PROPOSED STUDIES

Topic	Description	Dates (estimated)	References
Design of Project Intervention	**COMPLETED** 1. Technical design & budget Component 1 2. Technical design & budget Component 2 3. Technical design & budget Component 3 4. Technical design & budget Component 4 **IN PROGRESS** 5. Technical design & budget Component 5 6. GEF Biodiversity Tracking Tool 7. GEF Climate Change Tracking Tool 8. GEF Sustainable Forest Management Tracking Tool	 Finished Finished Finished Finished 30.04.2016 30.04.2016 30.04.2016 30.04.2016	**COMPLETED** 1. #40231060 2. #40231078 3. #40231106 4. #40231121
Economic feasibility & Impact evaluation methodology	**IN PROGRESS** 1. Ex ante economic analysis 2. Impact evaluation methodology and preliminary baseline	Draft of both: 15.05.2016	
Execution capacity	**IN PROGRESS** 1. SECI Analysis 2. Risk Analysis 3. Proposal of executing mechanism 4. Draft of Operation Manual and Regulation (MOP & ROP), including applicable environmental and social safeguards 5. Planning instruments for first 18 months (PEP, POA & PA)	 23.04.2016 30.04.2016 30.04.2016 31.05.2016 15.05.2016	
Environmental & Social Safeguards	**IN PROGRESS** 1. Environmental and Social Management Plano	15.05.2016	

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.