



PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Brazil: Recovery and protection of climate and biodiversity services in the Paraiba do Sul basin of the Atlantic Forest of Brazil.		
Country(ies):	Brazil	GEF Project ID: ²	4834
GEF Agency(ies):	IADB (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	Ministry of Science, Technology and Innovation (MCTI) Secretariat for Environment, State of Sao Paulo Secretariat for Environment of the State of Rio de Janeiro Secretariat for Science, Technology and Higher Education of the State of Minas Gerais	Submission Date:	2012-04-09
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	60
Name of parent program (if applicable): ➤ For SFM/REDD+ <input checked="" type="checkbox"/>		Agency Fee (\$):	2,667,000

A. FOCAL AREA STRATEGY FRAMEWORK³:

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 and corridors (65,000 Ha)	New protected areas established (4) and coverage (65,000 Ha) of previously unprotected ecosystems, including new AF corridors, and improved management and infrastructure in a three-state network of CU	GEFTF	1,760,000	129,207,000
(select) BD-2	2.1: Increase in sustainably managed landscapes that integrate biodiversity conservation	Pilot program for certifying small producers operating in buffer zones of CU (including sustainable management CU such as RDS, APA, RESEX) in sustainable management practices	GEFTF	3,000,000	7,288,000
CCM-5 (select)	5.1: Carbon stock monitoring system established	Carbon stocks monitoring system established	GEFTF	3,100,000	12,000,000
CCM-5 (select)	5.2 Restoration and enhancement of carbon stocks in forests and non-forest land	Forest and non-forest lands under good management practices (25,800 ha)	GEFTF	12,920,000	10,100,000
(select) SFM/REDD-1	1.3 Good management practices adopted by relevant economic actors	Payment for ecosystem services (PES) systems established (3).	GEFTF	4,620,000	6,884,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		

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.

(select) (select)			(select)		
(select) (select)	Others		(select)		
Sub-Total				25,400,000	165,479,000
Project Management Cost ⁴			(select)	1,270,000	3,315,000
Total Project Cost				26,670,000	168,794,000

B. PROJECT FRAMEWORK

Project Objective: The project seeks the recovery and preservation of the Paraiba do Sul basin of the Atlantic Forest of Brazil (AF) corridor to protect the generation of carbon sequestration and biodiversity benefits.						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
Component 1 - Capacity Building for carbon stocks and biodiversity management and monitoring CCM: \$3.1M BD:\$0.05 SFM: \$0.05	TA	Outcome 1.1 Measurement models adopted, capacity for continuous updating of databases established and M&E System operational	Output 1.1.1: Development of practical models for carbon stock management	GEFTF	600,000	2,000,000
	TA		Output 1.1.2: Generate reliable data on (i) captured carbon stocks and sinks in anthropic landscapes, (ii) biodiversity, (iii) water resource management, and (iv) initiatives of CC, BD and SFM within the project area	GEFTF	850,000	5,000,000
	TA		Output 1.1.3: Design and implement a carbon and biodiversity monitoring and evaluation system to assess the methods and strategies used in the project.	GEFTF	1,300,000	5,000,000
	TA		Output 1.1.4: Human resources training and capacity building	GEFTF	200,000	0
	TA		Output 2.1.1: Monitoring of proposed GEF project activities and results	GEFTF	250,000	0
Component 2 - Recovery and enhancement of carbon stocks in the Paraiba watershed along Brasil's southeast AF corridor CCM:\$12.92M	Inv	Outcome 2.1 Restoration and enhancement of carbon stocks in forest and non-forest lands	Output 2.1.1: 25,800 Ha (16,800 Ha Sao Paulo; 9,000 Rio Janeiro) in forest and non-forest lands in Paraiba do Sul watershed recovered and restored.	GEFTF	12,920,000	10,100,000

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.

BD: \$0 SFM: \$0							
Component 3 - Increase effectiveness and financial sustainability of CU along Brazil's southeast AF corridor CCM:\$0 BD: \$4.71M SFM: \$4.57M	Inv	Outcome 3.1: Effective protection in existing and new conservation areas	Output 3.1.1: Establishment of approx. 65,000 Ha in new 4 Conservation Units: PESM 17,000 PESM + Jureia 12.504 ha + Paranapiacaba 25.000 ha + Bertioaga 9.312 ha	GEFTF	0	109,244,000	
	Inv		Output 3.1.2: Improved management and infrastructure planning , measured by the Management Effectiveness Tracking Tool in a network of 6 CU	GEFTF	1,710,000	19,963,000	
	Inv	Outcome 3.2: Increase in sustainably managed production landscapes (forests and non-forests) that integrate BD conservation	Output 3.2.1 Pilot program for certifying small producers operating in buffer zones of CU and sustainable use CU (RDS , APAS, RESEX), in sustainable management practices implemented in 18,000 ha	GEFTF	3,000,000	7,288,000	
	Inv	Outcome 3.3: Enhanced enabling environment for establishing innovative financing mechanisms for Sustainable Forest Management	Output 3.3.1: Pilot of PES scheme within the buffer zones of CU along the Atlantic Forest biodiversity corridor, including incentives for the creation and implementation of private CU (RPPN) implemented in XXX ha	GEFTF	4,570,000	6,884,000	
Sub-Total						25,400,000	165,479,000
				Project Management Cost ⁵	GEFTF	1,270,000	3,315,000
Total Project Costs						26,670,000	168,794,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	IADB. Serra do Mar and Atlantic Forest Mosaics System Socio-environmental Recovery (Loan 2376/OC-BR)	Hard Loan	143,379,000
GEF Agency	IADB. National Tourism Development Program-PRODETUR Nacional - Rio de Janeiro (Loan 2411/OC-BR)	Hard Loan	2,100,000

⁵ Same as footnote #3.

Local Government	Secretariat for the Environment, Rio de Janeiro	In-kind	8,000,000
Local Government	Secretariat for Science, Technology and Higher Education, Minas Gerais	In-kind	1,000,000
Local Government	Secretariat for the Environment, São Paulo	In-kind	1,800,000
Local Government	Secretariat for the Environment, Rio de Janeiro	In-kind	515,000
Foundation	Foundation for Research Support of the State of Sao Paulo (FAPESP)	In-kind	12,000,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Cofinancing			168,794,000

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
IADB	GEFTF	Climate Change	Brazil	16,820,000	1,682,000	18,502,000
IADB	GEFTF	Biodiversity	Brazil	5,000,000	500,000	5,500,000
IADB	GEFTF	Multi-focal Areas	Brazil	4,850,000	485,000	5,335,000
(select)	(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
Total Grant Resources				26,670,000	2,667,000	29,337,000

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.

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 proposed multifocal area project is anticipated to contribute to the following GEF-5 Focal Areas strategies by protecting and restoring ecosystem services of global importance in the Southeastern Brazilian Atlantic Forest, particularly through:

i) BD-1. The project directly addresses this objective by improving the sustainability of protected area systems through the enlargement of existing Conservation Units (CUs) (by approximately additional 30,000 Ha) and creation of new CUs (with an area of approximately 35,000 Ha), totaling approximately 65,000 Ha of Atlantic Forest (AF) under effective conservation, improved effectiveness of conservation in existing conservation units;

ii) BD-2. Certification of producers in buffer zones of CUs to increase income and decrease pressure on existing forest fragments;

iii) CCM-5. The proposal includes efforts to conserve and enhance carbon stocks along 25,500 Ha of AF, contributing to a net reduction of CO₂ emissions. The project includes the promotion of appropriate practices and improved land use techniques that will have direct impact on reducing GHG emissions due to reduced land use change, as well as the shift towards land uses which promote carbon storage. The establishment of a land use monitoring system will allow the quantification of carbon stored and therefore the evaluation of implemented practices and models. Furthermore, the project will consequently lead to positive impacts in terms of reducing the level of vulnerability of natural ecosystems to climate change, and therefore offer knowledge development with issues related to adaptation and natural forest restoration systems;

iv) SFM/REDD-1. The project will promote the development and implementation of payment for ecosystem services schemes that will support the restoration and connectivity of forested and non-forested ecosystems at the landscape level outside protected areas. The integration of market based incentives will be essential for the long-term sustainability of the proposed AT landscape conservation strategy.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

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.:

The Atlantic Forest (AF) is an important provider of ecosystem services of world-wide and local relevance, including carbon regulation and storage and habitat for unique ecosystems and highly diverse species. As such, its conservation and recovery will lead to support the achievement of objectives established at the national level, both within the National Climate Change Plan (2009), the Second National Communication to the FCCC, and the National Biodiversity Strategy and Action Plan (NBSAP, 2010).

In terms of its link to the Second National Communication to the FCCC, this proposal addresses the aim of the Brazilian government to reduce emissions related to LULUCF, estimated to account for 77% of emissions (base year 2005). Specific mitigation actions described in the Communication are detailed under the National Climate Change Plan (Law 12.187 of December 29, 2009), which was defined as an instrument for the Climate Law implementation. In the plan the government of Brazil established voluntary mitigation targets of

36.1% to 38.9% of its total greenhouse gas emissions (equivalent to 975 million to 1.052 billion tCO₂e), in comparison to its “business as usual” trajectory by 2020. The proposed activities to achieve these objectives include the recovery of degraded pastures, integrating cattle and agricultures, increasing the use of no tilling agriculture and biological Nitrogen fixing, which will be directly addressed in this GEF project. There are also other mitigation sector plans that directly and indirectly deal with forest restoration: the Low Carbon Agricultural Plan and the Green Charcoal Plan. These plans aim at identifying GHG emissions and defying emission targets for these sectors. Moreover, the 2009 National Climate Change Policy strongly links climate action to key biodiversity protection objectives, such as “preservation, conservation, recovery and rehabilitation of environmental resources, with particular attention to the large natural biomes regarded as National Heritage” and “consolidation and expansion of legally protected areas and incentives to reforestation and restoration of vegetation cover in degraded areas.

To provide a framework for governmental action in terms of biodiversity conservation, and in compliance with its commitment under the Convention on Biological Diversity (CBD), the Government created the National Biodiversity Strategy and Action Plan (NBSAP). The activities proposed for the present GEF project are directly supporting Component 2 of the NBSAP, through the conservation of biological diversity (Objective 1), the conservation of species diversity (Objective 2), and the protection of ecosystem services (Objective 8), as well as contributing to Component 3, through the promotion of sustainable use, and Component 4, through the reduction of impacts on biodiversity. Most directly, it contributes to Goal 2.1 (effective conservation of 10% of the AF through Conservation Units or CUs), Goal 2.2 (biodiversity protection assured in at least 2/3 of biodiversity priority areas), and Goal 2.13 (strengthening capacity of ecosystems to provide services and goods), with indirect contributions to Goal 2.5 (effective conservation of threatened species in protected areas), Goal 3.5 (reduction in non-sustainable uses of protected areas), and 4.1 (reduction of deforestation rates in the AF).

Along with these national strategies, the project will improve national capacity for monitoring carbon stocks through the strengthening of the Brazilian Network of Climate Change Research (Rede CLIMA). Additionally, the project will contribute to goals set by Brazil’s Ministry of the Environment (MMA): restoration of degraded areas and creation of biological corridors; biodiversity and species conservation; sustainable use of natural resources; and strengthening of organizations participating in these efforts in keeping with the mandate of Law 11.428, from 2006 and Decree 6660/2008 which set corresponding regulations.

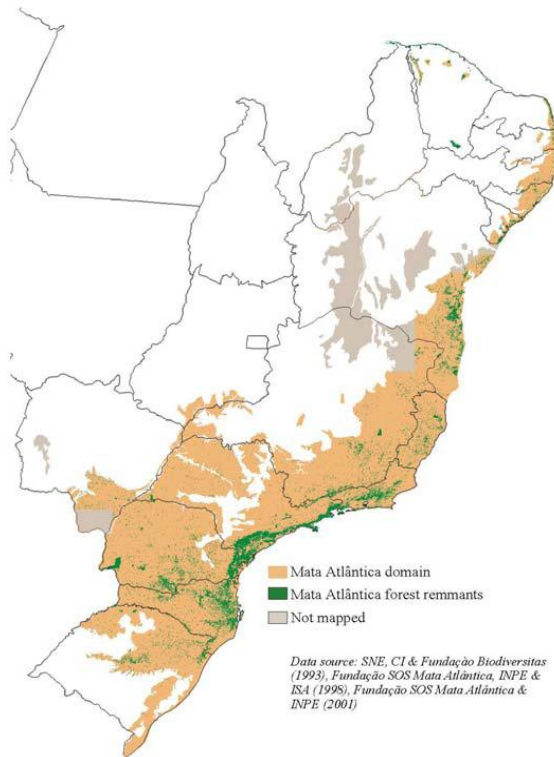
Finally, the proposed project also attends to priorities established by the Atlantic Forest Biosphere Reserve (RBMA), part of UNESCO’s Man & the Biosphere Program. GEF resources would contribute to furthering the fourth line of action of RBMA’s 10-year strategic plan: “Fostering Conservation and Sustainable Development” specifically through four of its programs: mosaics & biological corridors; Atlantic Forest markets; quality economy; and sustainable tourism. Lastly, by restoring forest vegetation in critical areas of Southeast Brazil, the project will also contribute to prevention and mitigation of the most devastating types of natural disasters in Brazil, namely landslides and floods, which is a national priority.

B. PROJECT OVERVIEW:

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

The Atlantic Forest (AF) (or Mata Atlântica), stretching along Brazil’s coast, (Figure 1), is among the most diverse eco-regions in the world, with an estimated 1.6 million species of animals (including insects), 7% of the world’s plant species, 9% of the world’s bird species, 5% of the world’s mammals, and 7% of the world’s amphibians - all these in a surface area that is only a 0.0006% of the world’s land area. It is also considered the world’s richest arboreal habitat with more than 450 arboreal species in one hectare⁶.

⁶ Conservation International J. Emmett Duffy (Topic Editor); 2008. “Biological diversity in the Atlantic Forest.” In: *Encyclopedia of Earth*. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment



cover.

threatened species in Brazil are all considered endemic to the AF. Of the 69 species of threatened mammals, 38 (55.1%) occur in this biome with 25 of them being endemic such as the mono-carvoeiro, the largest primate of the American continent and the largest endemic mammal of the Brazilian territory. In 2003, the count of endangered species was updated to 633, and once again, most of the species are from the AF.

Federal and State governments, as early as the 1940s, have made attempts to protect the AF, designating important forest fragments for protection under several categories of conservation units (CU), which were later integrated within the larger framework of the National System of Conservation Units (SNUC)⁸. As a further indication of the importance given to AF conservation, the majority of remaining AF was designated a UNESCO Biosphere Reserve (Atlantic Forest Biosphere Reserve, RBMA) in 1992. The RBMA comprises a total of 6.5 million ha of Conservation Units (CU), as well as 72 million ha of buffer/connectivity areas (BCA) and transition/cooperation areas (TCA).

In addition to its value as a biodiversity hotspot⁷, the AF supplies valuable ecosystem services to communities locally (e.g. shelter and food), regionally (e.g. clean, regular flows of water and erosion control), and globally (e.g. carbon sequestration, climate adaptation, possible self-regulation of biomass density, regulation of hydrological cycles, and protection against natural hazards).

However, the AF is a highly threatened ecosystem. Deforestation and degradation of the AF has occurred throughout modern Brazilian history. Estimates of existing AF cover ranges from 11.4% to 16% of the formerly covered 1.2 million km². About 8% of these are continuous tropical and subtropical forests, while the rest are isolated fragments. Furthermore, of the total 202 species of endangered animals in Brazil, 171 are believed to be from the AF (IBAMA, 1989). A CI survey corroborated these figures, finding that of the 265 vertebrate species threatened with extinction in Brazil, 185 (69.8%) occur in the AF and 100 (37.7%) of these are endemic to this biome. Among the amphibians, the 16

⁷ Biodiversity Hotspots is managed by the [Center for Applied Biodiversity Science](http://www.biodiversityhotspots.org/xp/hotspots/atlantic_forest/Pages/default.aspx) at Conservation International. http://www.biodiversityhotspots.org/xp/hotspots/atlantic_forest/Pages/default.aspx

⁸ SNUC was established by Law #1992 of 2000, and regulated in 2002.

Within RBMA, two ecological corridors have been designated, covering the length of current AF surface along the coast of Brazil: the Northeast and the Southeast AF corridors (see Figure 2). Yet, despite the designation, these corridors still face significant functional challenges, as illustrated by the Southeast corridor. One key challenge is the management effectiveness of protective areas, the other the lack of connectivity between the CU. Even though 25% of the AF habitat within this corridor is under some form of formal protection, the individual protected areas are not sufficiently connected with each other to guarantee the continuous biological corridor that is needed for the long-term viability of the AF ecosystem. At present, approximately 50% of the Southeast corridor remains in private hands, of which 25% is scattered among small farms and towns, rendering effective conservation considerably more challenging. Pressure on the remaining AF habitat is high and increasing. The major observed threats to this remaining area are:



Figure 2 - The Southeast AF Corridor

1) *Small size of the forest remnants and their lack of connectivity.* This leads to i)

border effects and ii) genetic erosion. The border effects are intensified through the encroachment of remnants by urban expansion or other anthropic land uses. The key signs of border effects in the AF are the proliferation of lianas and the dominance of pioneer and invasive species over secondary and climax forest species, as a result of increased light penetration into the forest. The genetic erosion, in turn, happens due to the small size of the population of a given species in a forest fragment which, coupled with their isolation, leads to a type of island effect, inbreeding and, ultimately, loss of genetic diversity.

2) *Poaching and extraction of non-timber forest products.* Hunting of animals and unsustainable extraction of plant material are also a degradation threat. This is in part due to the lack of economic alternatives for human populations surrounding remaining forests, and partly, as in the case of Heart of Palm, due to the high prices paid for the extracted resources.

3) *Climate change.* Changes in water and carbon cycles are predicted to reduce the ability of forest fragments to maintain their viability and biodiversity.

4) *Infrastructure and mining.* Vast off-shore oil and gas reserves were discovered in the deep-waters along the coast of southeastern Brazil (Santa Catarina, Paraná, São Paulo, Rio de Janeiro and Espirito Santo), with exploitation of these reserves expected to begin in the near future (a project known locally as Pré-Sal). Moreover, the impending exploitation activities are resulting in considerable investments in associated infrastructure (refineries, pipelines, ports etc) as well as residential developments for the anticipated influx of workers within the coastal areas of these States. Yet, the coastal regions of all five States associated with the Pré-Sal development are also home to the majority of the remaining AF. Thus, analyses of potential indirect environmental impacts of the Pré-Sal developments predict significant increases in pressure over coastal and marine ecosystems and further human encroachment on the AF mountain slopes. Other infrastructure expansion projects with potential for affecting significantly the remnants of the AF in Brazil's southeast corridor include the new Caraguatatuba-Taubaté gas pipeline (between São Paulo

and Rio de Janeiro), the expansion of the Tamoios highway (in the State of São Paulo), and the construction of the high-speed train (Trem Bala) linking Campinas, São Paulo and Rio de Janeiro.

One of the particularly relevant areas along the Southeastern AF is the Paraíba do Sul watershed, where several of the proposed project's activities will focus. This watershed covers an extensive area of the corridor amounting to 55,400km², distributed across the States of Sao Paulo (13,500km²), Rio de Janeiro (21,000 km²) and Minas Gerais (20,900 km²). The watershed also merits attention due to its social importance, economic strength, and vulnerability to climate change, particularly for being a natural disaster-prone area. The basin's population is estimated at 5.5 million inhabitants (IBGE 2000) and an additional 15 million people (residents of the city of Rio de Janeiro) rely on the watershed as their main, and many times sole, source of drinking water. Therefore, an estimated 21.5 million people depend directly on the ecosystem services provided by this watershed in terms of water quality and quantity and mitigation of natural disasters.

To effectively counteract these major threats, the interventions designed would have to address the root causes underlying these threats, namely:

a. Insufficient capacity for conservation and sustainable use management. This shortcoming is present both at the Federal and State levels, and is in part due to gaps in important information about the AF, especially about carbon stock management, carbon sinks, effective conservation measures, and truly sustainable forest management. There is also very limited direct observation, let alone geo-referenced monitoring data, on the states, trends and functions of ecosystem services and biodiversity indicators. Thus, decision-makers lack fundamental information to guide them. This is further compounded by a lack of coordination across State boundaries, which could assist with countering deforestation drivers, avoiding duplication of effort, learning from existing projects, and recovering the AF. Finally, there is a lack of trained human resources to carry out conservation activities and promote sustainable management practices.

b. Limited knowledge and understanding of ecosystem service flows and service values associated with carbon sequestration and biodiversity in the AF. Most ecosystem services are neither recognized nor valued in the way extractive or productive activities are. In spite of the progress made in the international conservation arena to internalize ecosystem services values into traditional economic activities, the value of ecosystem services for climate mitigation, adaptation, and water cycle management is not yet recognized or quantified with the project area. In the absence of adequate measuring instruments and controlled monitoring of environmental and ecosystem change tendencies, policy-makers and private producers lack knowledge to implement better production practices or access alternative markets (e.g. carbon markets).

c. Lack or insufficient incentives for private landholders to protect the forests. There are two main instruments to engage private owners for this purpose: i) legal provisions in federal legislation for the establishment of Natural Private Patrimony Reserves (RPPN) and the Legal Forest Reserve and ii) incentive based mechanisms that change landowners' behaviour. RPPNs are a voluntary designation of private land as conservation areas that prohibit extractive activities but allow non-extractive ones such as ecotourism and education. Under RPPNs, responsibility for conservation remains with the private owner, yet the bureaucratic hurdles for achieving RPPN status are considerable. The federally legislated Forest Code requires private owners to preserve 20% of their forested land as "legal reserve", but compliance is low due to lack of enforcement, and the reserved area may or may not be suitable for contributing to conservation purposes on a larger scale.

In terms of efforts to involve private landowners in support of government conservation programs, the State of Sao Paulo has issued a Law to establish Payment for Ecosystem Services (Law 13.798 of 2009 and Decree 55.947 of 2010). In the State of Minas Gerais, the legal framework creates a state wide PES scheme in which payments are allocated on a point based system for landowners. This program was approved in 2008 and started being implemented in 2010, having 981 landowners currently enrolled. Nonetheless, recurring drawbacks of these efforts are: the small scale of the individual pilot projects and their lack of connection to larger state-wide processes; institutional constraints associated to legislation that requires government support to enforce project agreements

in the field; and very high transaction costs.

Baseline Project: In the interest of overcoming these fundamental challenges to the long-term preservation of the AF, the States of São Paulo and Rio de Janeiro have requested support from the IADB to promote the conservation, sustainable use, and environmental recovery of a number of CUs within the Southeast AF corridor. These two projects constitute the majority of the co-financing for the proposed GEF funding.

The first is IADB Loan 2376/OC-BR “Environmental and Social Recovery of Serra do Mar and Marine Atlantic Forest Mosaics”, which focuses on the State of São Paulo and aims to promote the conservation, sustainable use, and environmental recovery of two large conservation areas in the heart of São Paulo’s AF - Serra do Mar State Park (PESM) and Jureia-Itatins Ecological Station (EEJI) - as well as a conservation mosaic comprising 16 CUs along the State’s 400-km coastline. The total estimated cost of this project is US\$470 million, of which US\$162 million are financed by IADB and the remaining US\$308 million are financed with counterpart resources. This project finances activities organized in three components:

- a. Improving existing CUs by restoring carbon stocks that have been degraded by illegal occupation and other associated factors, including: (i) adjusting park boundaries in critical areas of socio-environmental conflict; (ii) enhancing protection and public use infrastructure; (iii) restoring at least 450 ha of degraded AF; (iv) incorporating new AF covered public lands to the CU --17,000 Ha to PESH and 32,000 Ha to Ecological Station Jureia-Itatins (EEJI); and (v) launching of awareness raising campaigns.
- b. Reducing the impact of population groups living in the State Park Serra do Mar (PESH) and its surrounding area by relocating families away from the highest impact areas and improving urban services in areas that can be consolidated (a total of 9,000 beneficiary families); and
- c. Upgrading conservation unit monitoring and field inspection systems, including the acquisition of helicopters, boats and other vehicles to facilitate field monitoring and law enforcement, as well as training and institutional strengthening activities to enhance Sao Paulo’s Environmental Police capacity to monitor activities in the AF landscape.

The resettlement activities under this loan (component b above) are being undertaken under strict compliance with relevant Bank policies. A Resettlement Plan is drawn for each resettlement target area, which is sent to the Bank for approval before actual project activities start. Social work funded by the project covers pre- and post-resettlement activities, which are being highly successful. GEF resources will not be used to finance any of the activities associated to the resettlement, but will rather strengthen the impact of the post-resettlement activities by adding support to alternative economic activities to the lines of support provided by the baseline project. All relevant safeguards will be applied and followed, including prevention and management of potential social and environmental impacts that could derive from any activity financed by the GEF project.

The second project is IADB Loan 2411/OC-BR “National Tourism Development Program“, which focuses on the State of Rio de Janeiro, and includes a component (US\$10.1 million of IADB financing) aimed at fostering environmental management in five tourism development poles, of which one involves the GEF project area in south RJ. Among the proposed activities to be financed through this component are:

- a. Carrying capacity studies for the most fragile tourism attractions for public use and implementation of tourism flux management systems, mostly located within conservation units;
- b. Support to improve protection of conservation units in the vicinity of the five tourism-development poles, emphasizing vulnerable natural and cultural resource preservation, management and public use plans.

In addition to these two loans, which are principally focused on activities within protected areas, the three States involved in the proposed GEF project are carrying out various smaller-scale initiatives geared towards restoration of remaining Atlantic Forest fragments in buffer zones of protected areas and in the Paraíba do Sul watershed, including developing payment of ecosystem services initiatives. These programs (over 20) differ in design and emphasis, but are mostly focused on the preservation of water resources by protecting forests and riparian areas.

GEF resources are expected to complement the work and impact of the Baseline projects, by facilitating transfers to private landholders who have lands within the buffer zones of the Conservation Units supported by the Loan projects and within a priority watershed. Each GEF project intervention area will be selected to create synergy with Baseline project activities. GEF-financed activities will follow immediately after the Baseline projects, because the timing of the intervention is important, for GEF-funded activities to reinforce the positive impacts of those projects.

Even though the investment described here as the Baseline Project represent a significant step towards the long-term sustainability of the AF and its related ecosystem services, these efforts remain disperse, do not actually respond to a unified and well coordinated strategy, and do not build on strengths and learning from experience in these States. Also, while legislation in the area of conservation has several decades of implementation, Federal and State legislation in the areas of climate change and payment for ecosystem services are very recent; thus, Federal and State agencies are only now attempting to increase the implementation of these legislative instruments. Their efforts are hindered by a number of limitations in capacity and information, as detailed above in the discussion of root causes.

Moreover, the scattered nature of the state-level conservation initiatives to date has narrowed their potential impact on the maintenance, sustainable management, and recovery of the AF for biodiversity conservation and climate change mitigation. GEF resources would strengthen local capacity to implement and coordinate actions between the federal and state governments, as well as integrate them into a more effective framework at the landscape scale. The proposed project is essential to inject local efforts to protect the AF with new conceptual and methodological instruments, to develop a unifying strategy that avoids duplications, to promote learning from others' experience, and to concentrate efforts to produce critical mass in terms of biodiversity and climate mitigation benefits in the States of Rio de Janeiro, Minas Gerais and São Paulo. Without the proposed GEF project, currently dispersed initiatives will remain uncoordinated and isolated efforts, thereby limiting the long-term sustainability of the AF biodiversity habitat and carbon regulation services.

- 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:

The proposed project will focus primarily the root causes so far identified, addressing: i) the lack of pertinent, accurate and current data and monitoring capabilities on AF ecosystem services, and ii) the need for coordinated activities among the various actors working for the conservation of the AF and its ecosystem services, mainly between the Federal and State governments; and iii) the lack of sound and effective financing mechanisms to support conservation efforts for private landowners. As such, the project will focus its Component 2 activities in the Paraíba do Sul watershed, promoting a coordinated effort among the 3 States to build incentive based mechanisms aimed at restoring the AF, increasing carbon stocks in current productive systems, and conserving current forest remnants. The activities implemented in the field will be supported by scientific and technical information developed as part of Component 1 (where this information and monitoring

system will be generated). Finally, Component 3 will complement activities financed through the abovementioned loans with activities aimed at biodiversity conservation in buffer areas surrounding RBMA conservation units (as opposed to the conservation units themselves). Overall this project's novelty is the integration between science and conservation at a regional level, aimed at improving the flow of ecosystem services to a population of over 20 million people.

The project will also be vital to expand government conservation efforts beyond the traditional focus on establishing and protecting conservation units, which by themselves are insufficient to guarantee the preservation of the ecosystem services rendered by the AF. Active participation by the private sector and communities is needed to widen the reach of conservation efforts, and such participation will come about only if innovative incentives mechanisms and the valuation of ecosystem services are introduced across non-protected AF landscapes. There is a need to shift conservation efforts to a perspective of conservation landscapes, where public and private sectors collaborate in implementing a long-term, landscape-based management strategy that accounts for social as well as environmental interests. As public funds provided by the States can be used exclusively in public lands and territories, and as about half of the remaining AF is in private hands, the purpose of the proposed GEF project is to complement the States' investments by engaging non-public lands in conservation. These activities will be implemented in the Paraíba do Sul watershed as well as other selected areas within the Southeast Corridor, where practical models on sustainable land management will be tested.

International experience shows that the effectiveness of conserving and restoring key ecological functions that operate at landscape scales (e.g. including stabilization of hill slopes, habitat for wild species and enhancement of carbon stocks) depends on the complementarities of separately restored sites and remnants in the productive landscape mosaic. Individual decisions made by small landholders are unlikely to achieve this optimal outcome which requires prioritization of intervention areas, the adequate balance between sustainably managed productive areas and conservation, and the type of land recovery to be carried out. These criteria are important in that redesigning landscapes mosaics may offer greater opportunities than can be achieved at a single site for improving ecological functioning while also improving carbon stocks. That is, the trade-off between conservation and improvements in human well-being may be easier to achieve at a landscape level than at a site level. GEF resources would contribute to furthering the fourth line of action of RBMA's 10-year strategic plan: "Fostering Conservation and Sustainable Development" specifically through four of its programs: mosaics & biological corridors; AF markets; quality economy; and sustainable tourism.

The proposed GEF project aims at scaling up current efforts by providing: (a) coordination and communication between projects and their implementers; (b) reducing gaps in restoration investments and promoting economies of scale in carbon sequestration; (c) developing research, assistance and implementation tools to enhance the pool of knowledge on existing and proposed initiatives, and (d) allowing the prevision of current approaches and the establishment of better strategies for the medium and long term landscape management. By contributing to this project, the GEF would become a partner of the pioneering Brazilian States to engage in large-scale investment for the protection and recovery of the Atlantic Forest, as well as provide for active involvement of civil society and the private sector in the achievement of the expected results.

Project Objective. The project seeks the recovery and preservation of the Paraíba do Sul basin of the Atlantic Forest of Brazil (AF) corridor to protect the generation of carbon sequestration and biodiversity benefits. In particular, the project uses an SFM approach to produce multiple benefits, especially carbon benefits related to LULUCF and biodiversity in the Southeast Brazilian Atlantic Forest corridor, particularly provisioning regulatory services such as climate change mitigation and water conservation, by means of the conservation of biodiversity and the promotion of sustainable practices implemented along Brazil's Southeast AF Corridor. In particular, the project complements the efforts within conservation units and their buffer zones through ecological restoration of native

forests and assisted forest regeneration on a landscape perspective aiming at enhancing carbon stocks, increasing habitat conservation capacity by reconnecting forest fragments, improving ecosystem's resilience, and capacity building within the Paraíba do Sul basin and the Southeast AF Corridor.

The following components are financed under the proposed project:

Component 1: Capacity building for carbon stocks and biodiversity management and monitoring

The project will support the adoption of measurement models, the establishment of capacity for continuous updating of databases and operationalizing land use monitoring and evaluation systems to follow-up the multiple benefits to be derived from the project, particularly carbon stock changes, related to LULUCF and biodiversity (Outcome 1.1). The project area which will serve as a lab for the implementation and validation of Component 1 models using homogeneous methodologies, agreed to with the Ministry of Science, Technology and Innovation (MCTI), to allow the results from these pilots to be directly applicable and relevant in the context of CC, BD, SFM management strategies in the project area and beyond. Component 1 will therefore focus on the development of research needed to generate practical models for carbon stock management (Output 1.1.1) which will serve as input and support to the implementation of components 2 and 3. It will also generate reliable data on (i) captured carbon stocks and sinks in anthropic landscapes, (ii) biodiversity, (iii) water resource management, and (iv) initiatives of CC, BD and SFM within the project area (Output 1.1.2). To monitor carbon stock changes occurring in the project area this component will design and implement a monitoring and evaluation system (Output 1.1.3). The proposed system will evaluate carbon stock changes over time by comparing satellite images at an initial time period with future images to infer changes in that interval. This monitoring system will have lasting benefits for the RBMA as the methodology to monitor this biome will be developed, allowing land use changes to be monitored over time. Finally, as a consequence of this research and capacity building activities, this component will train human resources (Output 1.1.4) and involve the State Secretaries of Science and Technology and the State Research Foundations (FAPESP - Sao Paulo Research Foundation, FAPEMIG – Minas Gerais Research Foundation and FAPERJ – Rio de Janeiro Research Foundation) as well as the UNESCO-HIDROEX foundation in the project.

This component will effectively engage research networks such as FAPESP's Research Programs (Bionergy/BIOEN, BIOTA and Climate Change), FAPEMIG's BIOTA MG, FAPERJ's Global Climate Change Program, Rede CLIMA, COPPETEC Foundation, Hydrology and Environmental Studies Lab COPPE/UFRJ, and other organizations such as Pacto pela Mata Atlântica, the Institute Amigos da RBMA, Fundação Biodiversitas, Fundação Biotropicos, Instituto Inhotim, and Instituto de Observação da Terra (INOT), large umbrellas that bring together a great number of NGOs and some State Secretaries, for their implementation and coordination with local actors capacity.

Other partners of paramount importance are the Paraíba do Sul Watershed Integration Committee/CEIVAP and the Paraíba do Sul Watershed Agency/AGEVAP, pioneer organizations in Brazil to establish a payment system based on multiple uses of water. These two partners are linked to the National Water Agency and to the Water Resources Secretary of the Ministry of Environment, and bring together all 184 municipalities of the watershed.

An additional task for component 1 will be implementing the monitoring and evaluation (M&E) system of the methods and strategies used in the project and their results. As such, this system will make sure that proposed activities and actions are carried out and will evaluate whether they achieved the proposed results.

Component 2: Enhancement of carbon stocks in the Paraíba Watershed

Component 2 will be implemented in a 3-State-shared critical watershed (Paraíba do Sul) targeting areas with the greatest potential for carbon stock enhancement. The component will focus on

restoration of native forests and productive landscapes aiming at carbon sequestration, at the same time reconnecting forest fragments to increase genetic flow and the biodiversity conservation capacity. The project will focus on individual micro-watersheds, selected with participation of the local watershed agency to achieve highest gains and greater demonstrative effect, in which the project will support producers' switch to sustainable land management practices, implantation of productive forests, using native species and consortia of native plus exotic species, and recovery and conservation of AF remnants. A total of 25,800 Ha will be targeted for this activity (Output 2.1.1) using PES as an instrument to encourage private landholders to maintain existing native forest, turn pasture land to productive forest, or plant new forests to recover highly degrade areas; three variations of the PES mechanism will be applied to each participating State, having the project play a facilitating role, act as a matching fund, and engage in actual payments to landholders. For each plot of land, activities such as cadaster and environmental and agricultural planning will be undertaken in order to identify actions needed to transform current agricultural and/or forestry land use to increase carbon stocks and improve existing stocks' management. Current land use patterns will be analyzed and land tenure studies undertaken to identify the most viable pilot areas. These actions will have the benefit of recovering carbon stocks in fragile areas while resulting in other environmental services such as reduction of landslides, mudflows and floods, recharge of groundwater reservoirs, and reduction of river siltation (which may also increase the amount of drinking water and reduce the occurrence and intensity of floods in the watershed).

Component 3: Increase effectiveness and financial sustainability of CUs along Brazil's Southeastern AF corridor

Component 3 will aim at improving effective AF protection in existing and new conservation areas located in the Southeast AF corridor, but outside the Paraíba do Sul watershed. Counterpart resources will be used to provide CU infrastructure and address pressing problems of land invasion that threaten the corridor's most at-risk areas, namely, the narrow AF region that separates the megacity of São Paulo from the industrial port of Santos, in the coastal plains of the State of São Paulo. With counterpart resources, an estimated 30,000 Ha will be added to existing CU and an additional 35,000 Ha will be new CU, for a total of approximately 65,000 Ha of new areas under adequate protection (Output 3.1.1). GEF resources will be used to complement baseline project investments with technical assistance, training and equipment, so as to improve the effective management of participating CU, applying GEF's Management Effectiveness Tracking Tool to all CU linked to the project, but with particular emphasis on a network of 6 CU (Output 3.1.2). An increase in sustainably managed production landscapes will be sought by engaging local small-scale land owners and community members located within CU buffer zones and inside sustainable development protected areas to adopt sustainable management practices and commercialization opportunities through certification schemes that will target communities in regulated use territories such as Sustainable Development Reserves and others (Output 3.2.1). During the preparation PPG, the project team will consider the possibility of reinforcing the standard certification methods with the utilization of a "Park-trademark" being developed by other (BID-funded) projects which promote sustainable economic activities such as ecotourism. The project will also discuss with RBMA the possibility of using their Seal of Origin to encompass the Park-trademark and be applied in the project. Among the standard certification methods to be considered are: (i) FSC for forestry-related activities, organic production and raising methods; and (ii) MSC for fishing-related activities. The choice of methods will result from a rapid diagnostic of target area economic activities and actors. Counterpart resources will be used to undertake community awareness campaigns and provide basic infrastructure to support sustainable activities promoted by the GEF project. The majority of the resources of this component will be applied to the implementation of a system for Payment for Ecosystem Services to promote biodiversity habitat conservation, carbon sinks, and the spread of private AF reserves to link existing fragments of AF and connect them to the CU system along the AF corridor (Output 3.3.1). GEF funds will be used in three entry points (following STAP guidance) of the PES mechanisms existing in each participating State, having the project play a

facilitating role, act as a matching fund, and engage in actual payments to landholders. GEF funds will be complemented with funding from each state budget and taxes as are being implemented currently (for example: (i) federal and State governments will be obliged to make substantial investments to fulfill country-wide GHG emission reduction targets to 2020; resources will come from sectors contributing the most to GHG emissions, and will be destined to carbon sequestering forestry and LULUCF projects; (ii) water usage fees are foreseen in most State legislations under federal law of 1997; resources collected from those fees are to be used in watershed protection activities; (iii) the Low Carbon Program of the Ministry of Agriculture, seeks to associate production of food staples and bioenergy with reductions in GHG, and will fund projects of that nature; (iv) the National Family Agriculture Strengthening Program finances projects that improve family income, with emphasis on families resettled by the agrarian reform, many of them settled in the project area). GEF supported positive incentives for conservation will be complemented by enhanced enforcement of CU and buffer zone regulations, using counterpart resources.

All PES activities will rely heavily on community participation, as their needs and preferences will guide the choice of services and the choice of payment schemes. It will be the willingness and ability of private landholders, large and small, to comply with what they will promise in each individual business plans what will allow the project to fulfil its objectives. Final project design will be informed by in depth consultations with local communities and authorities concerning the PES scheme as well as the small-producers' certification program, as well as to define the most appropriate means to involve beneficiary communities directly in the planning and implementation of the project.

Global environmental benefits. The Atlantic forest has a large potential as a carbon sink and globally valuable biodiversity habitat. In terms of tons of carbon per hectare, this forest type has more carbon stored than the Amazon forest. Average above ground carbon stocks of the AF is 150 Mg.ha⁻¹ (compared to 100 Mg.ha⁻¹ in the Amazon), while below ground stocks for the AF vary from 200–300 Mg.ha⁻¹ and total carbon stocks range from 320 to 460 Mg.ha⁻¹ depending on the altitudinal quota studied. A tier 1 carbon estimate of the potential mitigation benefits of the project indicates that during the 5 years of project execution, the project could achieve emission reductions of nearly 6.6 million tons of CO₂e, while indirectly (in a 10-year life span) benefits could accrue over 20 MtCO₂e. The Atlantic forest is also the most biodiversity rich biome in Brazil and an internationally recognized biodiversity hotspot. For example, it boasts 20,000 plant species, 40% of which are endemic as well as 1,361 vertebrate species⁹. The proposed project will help conserve this species richness, which is of global importance. A full analysis of the total carbon mitigation potential reductions will be elaborated during project preparation (see PPG).

Achieving this project's objective will also result in substantial local benefits, including the protection of the drinking water source of over 20 million people, mitigation of damage due to extreme climate events in the Paraíba watershed, and protection of locally and globally important wildlife.

- 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.](#)⁹:

At the local level, the project is expected to bring about visible and long-standing benefits as a significant portion of the project focuses on working with poorer communities in rural areas whose practices are currently unsustainable but who require incentives and support to shift to sustainable alternatives. The activities are expected to have a strong impact on family and local economies and would reach at least 5,000 direct beneficiaries, while some of those projects could also benefit

⁹ Myers et al, 2000. Biodiversity hotspots for conservation priorities. Nature v.403.

groups of families organized under cooperatives. At the regional level, the inhabitants of the States of São Paulo, Rio de Janeiro and Minas Gerais that depend on the Paraíba do Sul basin for their water supply (21.5 million people) would also benefit from this project. Lessons learned from this approach can be used to replicate incentives and protection mechanisms in the entire Atlantic Forest domain. The project will also contribute to addressing gender issues by promoting full and equitable participation of women in the conservation and landscape management approach of the AF, particularly through their involvement in the investments and capacity building activities that will provide sustainable livelihoods and ecosystem services upon which they depend.

The Project will comply with GEF policies on gender, particularly with activities that will be designed to facilitate the access of women to project benefits, including: (i) the project will insist in attaining proportional representation of women in community organizations associated to the project; (ii) contents and schedule of training activities will be tailored to ensure that women are proportionally represented in each event. All these options will be presented to the communities as part of the consultation process during project preparation.

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:

Risk	Rating	Risk mitigation strategy
High opportunity costs of land	Medium/High	The Paraíba river is one of the most developed areas in Brazil. The current initiatives of payment for ecosystem services will be strengthened and will provide positive incentive to land owners to change land use and management practices to those with higher carbon stocks. Other activities, such as engagement of beneficiaries of the Paraíba river ecosystem's services, including the private sector interested in reforestation as climate change mitigation of industrial emissions, will be carried out during project preparation to mitigate this risk.
Low engagement of local populations	Medium	The project will promote activities to enhance awareness of the local population towards climate change, biodiversity conservation, and prevention of natural disasters as well as the importance of the Atlantic Forest biome.
Unsustainability of payment scheme	Medium	State laws that establish payments for ecosystem services provide a framework for the initiatives proposed in the project and therefore require the state to continue any initiated projects. Domestic resources from different sources (eg royalties from offshore oil exploration in the case of Rio de Janeiro and Sao Paulo, and payments for water usage) are going to be used in mitigation and conservation activities and would provide additional cash inflow to maintain these programs.
Coordination between state and Federal authorities is not successful	Low	The project will be coordinated jointly by the Ministry of Science, Technology and Innovation (MCTI), with support from the Ministry of Environment (MMA) in areas that refer to CU, and with participation State level Environmental Secretariats . Therefore the risks of lack of coordination will be mitigated by strong coordination with relevant agencies.
Climate change and forest fire render the forest restoration project ineffective	Low	Project scenarios of climate change for the project area indicate temperature elevation up to 3 C during this century and not substantial change in rainfall regimes. Therefore, the new climatic envelope would still be compatible with the Atlantic forest species; legislation is being established (e.g., in the State of São Paulo) banning the use of fire in agriculture, thus mitigating the risk of forest fires

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:

Project coordination. The project will be coordinated by the Ministry of Science, Technology and Innovation (MCTI), with the support of the Ministry of Environment (MMA) in subjects associated to conservation unit management.

Project execution. The project will be executed by four co-executing agencies: (i) the Ministry of Science, Technology and Innovation, through Rede CLIMA, who will be responsible for the implementation of Component 1; (ii) the Secretariat for the Environment of the State of São Paulo, who will be responsible for the execution of all activities planned in the State of São Paulo under Components 2 and 3; (iii) the Secretariat for the Environment of the State of Rio de Janeiro, who will be responsible for activities planned in that State under Components 2 and 3; and (iv) the Secretariat for Science, Technology and Higher Education of the State of Minas Gerais, who will be responsible for the corresponding activities planned in this State, in cooperation with the State Forestry Institute of Minas Gerais (IEF). Specific arrangements and all legal documentation regulating the relationship among the co-executing agencies will be drafted at the time of project approval.

Implementation of components 2 and 3 will require the participation of a third level of government, the Municipalities, as well as non-governmental and civil society organizations active in the area. The execution scheme for the project will be developed in detail during project preparation; the project team will seek to limit the complexity of the execution arrangements, building on schemes already proved to work and based on existing legislation for the management of PES. In principle, field activities would be organized along the following steps: (i) the executing agency would establish a technical cooperation agreement with the Municipalities to define project intervention areas, and to set up follow-up and reporting mechanisms; (ii) the executing agency would establish an agreement with a financial intermediary who would make the actual payments to the landholders; (iii) the Municipalities would sign individual agreements with each beneficiary, where targets, benchmarks and obligations will be clearly defined under Business Plans designed to attempt to derive short-term revenues that would add to the sustainability of project benefits.

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

All three State-level executing agencies mentioned above are signatories of the Pact for the Restoration of the Atlantic Forest, which includes government and non-government organizations, municipalities, private enterprises and research institutions. All activities proposed as part of the Project have been discussed and prioritized by the Pact's Council, and its implementation is considered key to the fulfillment of Pact's goals and targets (such as the case of the Paraíba do Sul watershed, which has been identified as high priority for forestry recovery by the Pact). Planning and monitoring instruments generated by the Pact (such as maps of areas suitable for restoration and biodiversity conservation priority) will be made available and will be used by the Project during its preparation and implementation. GEF funding will build upon the organizational structure provided by the Pact, and will benefit from previous investment made for the generation of the planning instruments the Pact would make available to the project, thus benefiting from significant savings and a multiplier effect.

Besides the involvement of these stakeholders, the main processes with which the Project expects to coordinate efforts are: (i) sector Plan to Mitigate Climate Change by enhancing forest carbon stocks, coordinate by the Ministry of the Environment ; (ii) Sustainable Rural Development State Program, financed by the World Bank, where the SMA and Agriculture Secretariat participate; its purpose is to improve the competitiveness of family agriculture while at the same time enhancing environmental sustainability; (iii) Atlantic Forest Corridor programs of the Ministry of the Environment, complemented with methodology developed and models developed by WWF's AF Program; (iv) RPPN Incentives Program of SOS Mata Atlântica/CI and others; (v) GEF-funded Bordering Rivers Recovery (Matas Ciliares), which is being executed under responsibility of the SMA, and has developed a system of PES for the services generated by riverside forests by municipalities and agriculture landowners; (vi) Build on Payments for Ecosystem Services work done by conservation NGOs such as The Nature Conservancy who has lead watershed payment programs and piloted forest banking in the SoSP; (vii) Strategic Environmental Planning for Port, Industry, Naval and Offshore (PINO) activities in Sao Paulo's coast, under which SMA coordinates with SP's Secretariat for Development to assess cumulative impacts of economic activities that can

influence SP's coastline, including its AF; (viii) IGAM's water quality monitoring program (Programa Águas de Minas) which has 28 sampling points along the Paraíba do Sul watershed most important rivers, which have been sampled since 1997; (ix) IEF: State Plan for Biodiversity Protection; (x) CEMIG Research & Development Project: Environmental Assessment of Paraíba River after Paciência Reservoir; (xi) National Plan for the Prevention of Natural Disasters, Ministry for National Integration.

Besides the agencies coordinating the activities, other stakeholders will participate in the project:

Activities	Coordination / Implementation
Monitoring of vegetation cover, carbon stocks and biodiversity	São Paulo - National Institute for Space Research/INPE; State of Sao Paulo Research Foundation, FAPESP; University of São Paulo/USP, State University of Campinas/UNICAMP, University of the State of São Paulo/UNESP; Federal University of São Carlos/UFSCar; University of Taubaté/UNITAU; University of the Paraíba Valley/UNIVAP; IPÊ Institute; Rio de Janeiro - Federal University of Rio de Janeiro/UFRJ; State University of Rio de Janeiro/UERJ; State University of Northern Rio de Janeiro/UENF; Federal Rural University of Rio de Janeiro/UFRRJ; Botanical Gardens of Rio de Janeiro/JBRJ; Minas Gerais - Federal University of Minas Geais/UFMG; Federal University of Viçosa
Restoration models and recovery of degraded areas /Strategies for sustainable agricultural production/ natural disaster mitigation	Forestry Institute of São Paulo/IF; Botany Institute of São Paulo/IBT; Forestry Foundation of São Paulo State/FF; Forestry Institute of the State of Minas Gerais/IEF-MG; Atlantic Forest Biosphere Reserve; EMBRAPA; National Center for Monitoring and Early Warning of Natural Disasters (CEMADEN-MCTI)
Engagement of civil society and economic sector	NGOs: Paraíba do Sul Basin Committee/CEIVAP and Paraíba do Sul Basin Agency/AGEVAP; Pacto pela Mata Atlântica; SOS Mata Atlântica, Conservação Internacional, IPE, TNC, WWF Brasil, ISA, Biodiversitas, Fundação Biotropicos, Instituto Inhotim, two subbasin comittes in Minas Gerais State (PS1-CBH dos Afluentes Mineiro dos Rios Preto e Paraíba; PS2-CBH Rio Pomba e Muriaé). International Center for Education Capacity Building and Applied Research UNESCO-HIDROEX Private sector: FIBRIA, Companhia Siderúrgica Nacional/CSN, PETROBRAS, Vale do Rio Doce
Associated initiatives of research, development and capacity building	Research Programs and Agencies: Rede CLIMA (Brazilian Network on Climate Change Research), National Institute for Climate Change, CNPq, FAPESP, FAPERJ, FAPEMIG

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:

Out of the total US\$657 million total cost of the BLP, US\$145.48M are presented as direct counterpart to proposed GEF funding. IADB prepared the present proposal for GEF financing in concomitance with preparation of the loan proposals for 2376/OC-BR (total cost US\$470M), approved in December and already ongoing and 2411/OC-BR (US\$187M) approved in August 2011, awaiting initiation of disbursements. Project co-financing adds significant investments consistent with all 3 GEF Focal Areas.

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 is highly consistent with IADB strategies for Brazil. According to the latest IADB Country Strategy, one of the Bank's main activities will be to focus on improving environmental management and quality and promoting conservation and sustainable use of natural resources. Most importantly, this project will directly contribute to achieving one of the strategy's

main objective indicators which is to “increase forested area under proper use (ha/year)”. Notably, results and lessons learned from this GEF project and first loan will directly impact the design of second and third phases of the proposed project. This will ensure that the planning and incentives tools tested and refined during the proposed GEF operation are later applied at much larger scale, thereby amplifying the project’s global benefits.


The Bank’s long-term partnership with the Government of the participating States, which extends well beyond the time-frame of the current project, is invaluable for the conservation of Brazil’s most valuable AF. The IADB is also supporting several climate mitigation activities in the State of Rio de Janeiro and is establishing stronger links on the climate issue with the State of Minas Gerais. Moreover, IADB brings considerable expertise generated from its portfolio of conservation and sustainable development projects, including experience in protected areas management, sustainable agriculture, forest management, institutional capacity building, strengthening of regulatory frameworks and economic incentive mechanisms for the regulation of private-sector behavior, all of which will be important contributions to the Project.

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	02/24/2012

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-GEF Executive Coordinator		04/09/2012	Helena Landázuri de Piaggese	202-623-1872	Helenal@iadb.org
		04/09/2012	Simone Carolina Bauch	(5561) 3317-4123	sbauch@iadb.org

ANEXO I - CONFIDENCIAL

SAFEGUARD POLICY FILTER REPORT

This Report provides guidance for project teams on safeguard policy triggers and should be attached as an annex to the PP (or equivalent) together with the Safeguard Screening Form, and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	ENVIRONMENT AND NATURAL DISASTERS- ENVIRONMENTAL MANAGEMENT AND GOVERNANCE
	Type of Operation	Technical Cooperation/Investment Grant
	Additional Operation Details	
	Investment Checklist	Environmental Programs
	Team Leader	Piaggese, Helena L. de (HELENAL@iadb.org)
	Project Title	Recovery of climate & biodiversity services in Brazil's Southeast AF corridor
	Project Number	BR-G1003
	Safeguard Screening Assessor(s)	Piaggese, Helena L. de (HELENAL@iadb.org)
	Assessment Date	2012-07-02
	Additional Comments	Operation classified as "Investment Grant" (not in Type of Operation; also Environmental Protection Operation, not in Generic Checklist)

SAFEGUARD POLICY FILTER RESULTS	Type of Operation	Investment Grants	
	Safeguard Policy Items Identified (Yes)	The Bank will make available to the public the relevant Project documents.	(B.01) Access to Information Policy– OP- 102
		The operation is in compliance with environmental, specific women's rights, gender, and indigenous laws and regulations of the country where the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).	(B.02)

	The operation (including associated facilities) is screened and classified according to their potential environmental impacts.	(B.03)
	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 of women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.	(B.06)
	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.	(B.07)
	In-country systems are being used based on performed equivalency and acceptability analysis.	(B.16)
	Suitable safeguard provisions for procurement of goods and services in Bank financed projects may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.	(B.17)
Potential Safeguard Policy Items(?)	No potential issues identified	
Recommended Action:	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:		

ASSESSOR DETAILS	Name of person who completed screening:	Piaggese, Helena L. de (HELENAL@iadb.org)
	Title:	Project Team Leader
	Date:	2012-07-02

SAFEGUARD SCREENING FORM

This Report provides a summary of the project classification process and is consistent with Safeguard Screening Form requirements. The printed Report should be attached as an annex to the PP (or equivalent) and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	ENVIRONMENT AND NATURAL DISASTERS- ENVIRONMENTAL MANAGEMENT AND GOVERNANCE
	Type of Operation	Technical Cooperation
	Additional Operation Details	
	Country	BRAZIL
	Project Status	
	Investment Checklist	Generic Checklist
	Team Leader	Piaggese, Helena L. de (HELENAL@iadb.org)
	Project Title	Recovery of climate & biodiversity services in Brazil's Southeast AF corridor
	Project Number	BR-G1003
	Safeguard Screening Assessor(s)	Piaggese, Helena L. de (HELENAL@iadb.org)
	Assessment Date	2012-07-02
	Additional Comments	

PROJECT CLASSIFICATION SUMMARY	Project Category: C	Override Rating:	Override Justification:
	Conditions/ Recommendations		Comments:
		<ul style="list-style-type: none"> • No environmental assessment studies or consultations are required for Category "C" operations. • Some Category "C" operations may require specific safeguard or monitoring requirements (Policy Directive B.3). Where relevant, these operations will establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, 	

		<p>health and safety etc.).</p> <ul style="list-style-type: none"> • The Project Team must send the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports.
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SUMMARY OF IMPACTS/RISKS AND POTENTIAL SOLUTIONS	Identified Impacts/Risks	Potential Solutions

ASSESSOR DETAILS	Name of person who completed screening:	Piaggese, Helena L. de (HELENAL@iadb.org)
	Title:	
	Date:	2012-07-02

SOCIAL AND ENVIRONMENTAL STRATEGY

It is not anticipated that the activities to be financed in this program will have negative direct social or environmental effects; the project will support exclusively activities directed towards the conservation of standing forests and other activities that are evaluated as sustainable from an ecological and environmental point of view. Nevertheless, all terms of reference and project designs will include a reminder for project executing agencies that all activities financed by the project must comply with IADB Safeguards both in the Environmental as in the Social area.

Project monitoring devices will allow close examination of progress, not only towards achieving project objectives of increased and more sustainably managed Atlantic Forest surfaces, but also unforeseen results that could have a less than positive impact on the environment or the local communities.

In reference to those local communities, the project is expected to have a highly positive socio-economic impact, as it will provide financial resources to start-up new sustainable economic activities, beyond the conditional transfers foreseen as part of the Payment for Ecosystem Services schemes.

Based on the afore-mentioned, and according to the ESR Safeguard Classification toolkit, the operation has been classified as "C".

INDEX OF COMPLETED AND PROPOSED SECTOR WORK

Topic	Description	Expected date	References & hyperlinks to Technical files
<p>Design of Component 1: Capacity Building</p>	<p>A group of individual consultants will be hired to help participating governmental institutions and the team with inputs necessary to design project activities in Component 1. Through such consulting work, the project team will obtain:</p> <ul style="list-style-type: none"> • Bibliographic / Literature review of knowledge gaps and design of research activities. Research models design: development of criteria and procedures for research activities related to the development of practical research models for carbon stock management; • Terms of reference and cost for reliable data collection on carbon, biodiversity, water and existing initiatives in CC, BD and SFM; and design of a carbon monitoring system, including a scoping exercise and research on existing MRV systems, as well as gap analysis in line with international practice, to be tested during project execution and later exported to other projects and institutions; • Baseline for carbon monitoring system: define baseline for current carbon stocks/capture/emissions in the project area (WITHOUT project) and potential carbon mitigation impact of the project (WITH project); • Human resources training and capacity building: identification of carbon training needs in MCTI and SECTES in 3 states; design of training activities; and development of workplan and ToR to execute activity. 	<p>July-September 2012</p>	<p>Terms of Reference in IDBDOCS</p>
<p>Design of Component 2: Climate Change Mitigation</p>	<p>The design of the second Component will involve the development of a concept and operations manual for the implementation of a Payment for Ecosystem Services in the Paraíba do Sul watershed. The preparation work, to be undertaken with support from consultants financed with a GEF-PPG contribution will include:</p>	<p>July-September 2012</p>	<p>Terms of Reference in IDBDOCS</p>

Topic	Description	Expected date	References & hyperlinks to Technical files
	<ul style="list-style-type: none"> • Development of baseline data, which entails the preparation of the instruments for data collection, including a socio-economic survey; • Design of the economic evaluation methodology for PES activities; • Economic analysis of information collected through the surveys; • Preparation of a technical report summarizing results of data analysis including descriptive statistics, analysis of production function, and willingness to accept a PSE system on the part of producers; • Development of an Operations Manual for the PES activity, which will include: (i) analysis of the legal frameworks in the states of Sao Paulo, Minas Gerais and Rio de Janeiro with regard to PES and related legislation; (ii) presentation of existing PES experiences in the three states and discussion of such experiences from the point of view of their legal and contractual context, in order to provide inputs to the identification of options for the project's PES activities; and (iii) preparation of a detailed PES Operations Manual to guide the implementation of the GEF project in this area. 		
Design of Component 3: Biodiversity Conservation	<p>In order to collect relevant information and design the scope of the third component, the project team will be supported by a team of consultants specialized in Conservation Unit management and sustainable use experts. The preparation activities under this heading include:</p> <ul style="list-style-type: none"> • Derivation of a geo-referenced baseline for project activities that involve an increment in the surface area under conservation; • Application of a Management Effectiveness Tool methodology to assess needs and priorities among beneficiary Conservation Units; • Adaptation of the PES design made for Component 2 to selected areas within PESM buffer zones, which will be applied in concomitance and association to the next two activities; 	July-September 2012	Terms of Reference in IDBDOCS

Topic	Description	Expected date	References & hyperlinks to Technical files
	<ul style="list-style-type: none"> • Detailed design of a pilot to certify small landholders within CU's buffer zones. The expansion of protected area and strengthening the capacities of CU will be reinforced with activities to promote sustainable use in the Buffer Zones of the largest CU protecting Atlantic Forest in the State of São Paulo (Serra do Mar State Park, or PESM) through a combination of three instruments: (i) a PES scheme to promote forest conservation, regeneration and other sustainable land uses (designed under items 6, 7 and 8 above); (ii) a Certification scheme; and (iii) a Sustainable Value Chain (SVC) activity (designed under item 12 below). The Certification activity will involve the research needed to tailor the system to the needs and potential of the project area, and the development of an Operations Manual that will include criteria and procedures for the application of all three instruments. • Detailed design of a group of activities meant as a complement to the PES financing and support or alternative to the Certification line of work: Sustainable Value Chains, which would enable the project to further support those activities with specialized technical assistance and training for local producers, not only to improve the organizational and safeguards workings of their enterprises, but to strengthen weak links in the production chain that surrounds such endeavors. 		
Financial management/fiduciary issues, institutional strengthening, and control environment	An institutional and financial specialist will be hired with RND GEF Fee resources to undertake an institutional capacity analysis of FUNBIO, the project's Executing Organization. The consultant will use the SECI methodology, including an analysis of the FUNBIO's accounting, financial, procurement and other administrative systems. Based on findings and recommendations, Fiduciary Specialists will make recommendations to the project team on the financial management arrangements and type of supervision that will be used during execution. Training on financial management policy OP-273-1 will be provided to the Financial Unit of FUNBIO. Risks will be assessed and recommendations for diminishing these risks provided.	August-September 2012	

Topic	Description	Expected date	References & hyperlinks to Technical files
Environmental and social strategy and community consultations	A team of environmental and social specialists will be hired with resources from the GEF Fee to undertake an assessment of potential impacts and risks in both areas, and inform project design concurrently. As part of such analysis, a battery of community consultation meetings will be undertaken in areas central to the two large regions where the project will take place: the Paraiba do Sul watershed, and the buffer zones of the Serra do Mar State Park (PESM). When working in the Paraiba watershed, the consultants will organize community consultations in coordination with the Paraiba do Sul Watershed Agency (CEIVAP). When working in the buffer zones of PESH, the consultants will coordinate with authorities of the Park and its Consultative Councils.	August-September 2012	
Monitoring and Evaluation	Resources of INE/CCS will be used to hire a consultant to design the Project Monitoring and Evaluation procedures, and resources from INE/RND will be used to hire a second consultant to develop the methodology for project impact evaluation	September 2012	
Operational instruments for the project	A consultant specialized in budgetary and operational instrument development will be hired to develop the Acquisition Plan, Annual Operation Plan, Detailed Budget, and GEF Tracking Tool.	July-September 2012	

ANEXO V - CONFIDENCIAL