GEF-6 PROJECT IDENTIFICATION FORM (PIF)

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

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- PART I: PROJECT INFORMATION

Project Title:	Realising the biodiversity conservation potential of private lands in Brazil		
Country(ies):	Brazil	GEF Project ID:[1]	9413
GEF Agency(ies):	UNEP	GEF Agency Project ID:	01402
Other Executing Partner(s):	MMA, PUC-Rio (CSRio and CPI), FBDS	Submission Date:	April 27, 2016
GEF Focal Area(s):	Biodiversity , Land Degradation, Sustainable Forest Management	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☐		Corporate Program: SGP ☐
Name of parent program:	[if applicable]	Agency Fee ($)	850,575

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in $)	
		GEF Project Financing	Co-financing
BD-4 Program 9	GEFTF	4,527,983	21,500,000
LD-2 Program 3	GEFTF	724,941	3,958,500
LD-3 Program 4	GEFTF	724,942	3,958,500
SFM-1 Program 2	GEFTF	1,398,426	4,600,000
SFM-2 Programs 5	GEFTF	1,577,133	4,783,000
Total Project Cost		**8,953,425**	**38,800,000**

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Scaling up sustainable landscape management and improving biodiversity conservation and ecosystem services provision in Brazilian private set-aside areas

Project Components	Financing Type[3]	Project Outcomes	Project Outputs	Trust Fund	(in $)	
					GEF Project Financing	Co-financing
1. General Coordination, Guidelines and Federal regulations for Private Set-Aside Areas (PSAA) established by the Brazilian Forest Code – Law 12.651/12	TA	**1.1.** Improved institutional coordination on biodiversity conservation and ecosystem services provision of PSAA	**1.1.1.** Governance and coordination strategy for stakeholders (companies, NGOs, Academy, Regional/Local Governments, and landowners) on biodiversity conservation,	GEFTF	1,875,955	15,836,740

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[1]   Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.
[2]   When completing Table A, refer to the excerpts on GEF 6 Results Frameworks for GETF, LDCF and SCCF.
[3]   Financing type can be either investment or technical assistance.

			ecosystem services provision, SLM and SFM of PSAA			2
		1.2. Sustainable Landscape Management (SLM) Guidelines for PSAA applied in 5 Brazilian biomes [*BD Outcome 9.1*]	**1.2.1.** Biome specific SLM Guidelines for landscape stakeholders focused on strengthening biodiversity conservation, ecosystem services provision and SFM of PSAA (registered in the Environmental Rural Registry System – SiCAR)			
		1.3. Biodiversity conservation and Ecosystems services provision mainstreamed into national regulatory framework to support SLM, Sustainable Forest Management (SFM) and restoration in PSAA [*BD Outcome 9.2 & LD Outcome 2.1*]	**1.3.1.** Federal regulation improved for better biodiversity conservation and ecosystem services management in PSAA to support SLM, SFM and restoration			
2. Pilot implementation and Forestry Sectoral Agreement	TA	**2.1.** Increased application of best practices for biodiversity conservation, ecosystem services provision, SLM and SFM by the small, medium and large landowners (both women and men) and the forestry sector in PSAA [*BD Outcome 9.1; SFM Outcome 3 & LD Outcome 3.2*] 2.2. Increased Intact vegetative cover, reduced degree of fragmentation in production landscapes and increased "Golden Lion Tamarin" population in the Atlantic Forest pilot area of the São João Basin APA (KBA area in the State of Rio de	**2.1.1.** SLM Guidelines for PSAA implemented in Atlantic Forest pilot area of the São João Basin APA (KBA area in the State of Rio de Janeiro) aimed at improving the habitat quality for 6 threatened species and SFM for the Legal Reserves areas **2.1.2.** SLM Guidelines for PSAA implemented in Cerrado pilot area of the Environmental Protected Area of Pouso Alto APA (KBA area in the State of Goiás) aimed at improving the habitat quality for 45 threatened species and SFM for the Legal Reserves areas		3,240,288	10,557,820

		Janeiro); **2.3.** Maintenance of current area of Intact vegetative cover, reduced degree of fragmentation in production landscapes and increased "Pali Palã" grass and "Aroeira" populations in the Cerrado pilot area of the Environmental Protected Area of Pouso Alto APA (KBA area in the State of Goiás);	**2.1.3.** SLM Guidelines for PSAA training package (workshops, online training tool) for stakeholders (forest companies, landowners, government agents) in up to 9 states **2.1.4.** A sectorial agreement with the forestry sector, containing SLM Guidelines for PSAA and targets to be implemented (in 5 biomes – 7 States; i.e. potential upscaling to 5M ha of PSAA) by the IBA (Brazilian Tree Industry Association)			
3. Improving management capabilities and incentives for scaling up biodiversity conservation, ecosystem services, SLM and SFM in PSAA	TA	**3.1.** Natural capital in PSAA is better managed by the creation of a national management system [*BD outcome 9.1*] **3.2.** Biodiversity conservation, ecosystem services provision, SLM and SFM in PSAA are enhanced by the development of direct (tradable environmental certificates – CRA) and indirect incentive schemes [*BD outcome 9.1; LD Outcomes 2.3 and 3.1 & SFM Outcome 2*]	**3.1.1.** Natural Asset Management System (NAMS), a national PSAA management system based on three nested components: i) improving PSAA conservation, ii) natural capital measuring, and iii) biodiversity and ecosystem services management **3.2.1.** Incentive package created and focused on negotiation of CRA for biodiversity conservation, ecosystem services provision, SLM and SFM in PSAA	GEFTF	3,410,829	10,557,821
Subtotal					8,527,072	36,952,381
Project Management Cost (PMC)[4]				GEFTF	426,353	1,847,619
Total Project Cost					8,953,425	38,800,000

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[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: (   )

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient Government	Amazon Fund	Grants	19,900,000
Beneficiaries	International Institute for Sustainability	In-kind	1,120,000
Recipient Government	Ministry of Environment	In-kind	16,900,000
Recipient Government	Ministry of Environment	In-kind	880,000
(select)		(select)	
(select)		(select)	
Total Co-financing			38,800,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS [a)]

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	GEF Project Financing (a)	Agency Fee (b) [b)]	Total (c)=a+b
					(in $)		
UNEP	GEFTF	Brazil	Biodiversity	(select as applicable)	4,527,982	430,158	4,958,140
UNEP	GEFTF	Brazil	Land Degradation	(select as applicable)	1,449,883	137,739	1,587,622
UNEP	GEFTF	Brazil	SFM	SFM	2,975,560	282,678	3,258,238
Total GEF Resources					8,953,425	850,575	9,804,000

a)   Refer to the Fee Policy for GEF Partner Agencies.

E. PROJECT PREPARATION GRANT (PPG)[5]

Is Project Preparation Grant requested? Yes ☒   No ☐ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	PPG (a)	Agency Fee[6] (b)	Total c = a + b
Project Preparation Grant amount requested: $182,648				PPG Agency Fee: 17,351		**(in $)**	
UNEP	GEF TF	Brazil	Biodiversity	(select as applicable)	100,000	9,500	109,500
UNEP	GEF TF	Brazil	Land Degradation	(select as applicable)	50,000	4,750	54,750
UNEP	GEF TF	Brazil	SFM	SFM	32,648	3,101	35,749
Total PPG Amount					182,648	17,351	199,999

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[5] PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to $50k for PF up to$2m (for MSP); up to $100k for PF up to $3m; $150k for PF up to $6m; $200k for PF up to $10m; and $300k for PF above $10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[6] PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[7]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*795,216 Hectares[8]*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*216,057 Hectares[9]*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	*Number of freshwater basins*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*Percent of fisheries, by volume*
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	*48 million metric tons of CO_{2e}[10]*
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*metric tons*
	Reduction of 1000 tons of Mercury	*metric tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*ODP tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*Number of Countries: 1*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*Number of Countries: 1*

PART II: PROJECT JUSTIFICATION

1. *Project Description.* Briefly describe:

Project description summary: **Half of the remaining natural vegetation cover in the five Brazilian biomes this project focuses on (Atlantic Forest, Cerrado, Caatinga, Pantanal and Pampa), amounting to 88 million hectares of natural vegetation, are located on private lands. Although a massive investment is underway to geo-reference these areas, with almost 70% national coverage completed, their ability to contribute to biodiversity conservation and ecosystem services provision, which is underpinned by their sustainable landscape and forest management is hindered by a lack of i) management guidelines for landscape stakeholders; ii) Incomplete Federal regulations on management regimes allowed on these private set-aside areas; iii) the inexistence of tools for the public sector to conduct strategic planning and management of these set-aside areas at macroscales; and iv) appropriate incentives mechanisms to influence private land-owners in priority areas to adopt practices that would improve biodiversity conservation and ecosystem services provision. This project, that has both pilot and macro policy level elements, aims to address these barriers by a)providing these missing elements, b)by piloting them on-the-ground in two Key Biodiversity Areas (KBA) (approx. 1 mi hectares) and c)via a sectorial agreement with the forestry sector to improve the management of**

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[7] Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions,* will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

[8] Amount of native vegetation cover in the two KBA pilot areas.

[9] Amount of production landscapes in the two KBA pilot areas.

[10] See Annex 1

their private set-aside areas. A successful implementation will have a direct contribution of conserving over 50 endangered species, scaling-up sustainable landscape management and appropriate systems of sustainable forest management in millions of hectares of Private Set-Aside Areas (PSAA). More importantly, it will create the basis of a national management system of conservation and management for 88 million hectares of PSAA and their wider landscapes.

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed;

Brazil has a prominent role in global biodiversity conservation and its economy is heavily dependent on land-based products, such as its agribusiness exports, and services, including the water provision that accounts for 68% of Brazil´s energy matrix. Therefore, a sustainable management of Brazil´s landscapes is of crucial importance both for global environmental benefits and its domestic economy. Despite the remarkable success in bringing Amazon deforestation down, deforestation and land degradation in other biomes, in particular the Cerrado and Caatinga, continue at alarming rates. **Fragmentation is a serious threat for biodiversity conservation in heavily deforested biomes**, in particular on Brazil´s two global biodiversity hotspots (high biodiversity areas under critical threat): the Atlantic Forest and the Cerrado. The Atlantic Forest has a longer historical deforestation than the Cerrado, with several deforestation cycles since the 16th century, such as timber exploitation, sugar cane cultivation and coffee plantations, and native vegetation now covers only 12-16% of its original 135 million ha. Currently, the Atlantic Forest harbours 70% of the Brazilian population, 80% of its gross domestic product. In this region there are more than 260,000 forest remnants separated by an average distance of 1440 m from their closest neighbor, more than 80% of these remnant forest patches are smaller than 50 ha, and approximately 90% are privately owned. Fragmentation is also a serious issue in the other 4 biomes this project focuses on. **Another issue common to all six biomes that is especially prevalent in private set-aside areas is habitat degradation due to over-harvesting and illegal hunting.**

The fragmentation and degradation of these native vegetation patches in private lands is also a serious consequence for land degradation. These issues reduce their provision of ecosystem services, with negative effect for the surrounding landscape. Soil degradation and disturbed hydrological cycles are two prevalent problems in these biomes that are identified both by remote sensing observations and interviews with farmers.

Although 46% of the Amazon is currently protected under public protected areas, public protection levels are much lower in other biomes: 9% in the Atlantic Forest, 8% in the Cerrado, 7% in the Caatinga, 5% in the Pantanal and 3% in the Pampa. In this context, it becomes crucial to properly include natural vegetation remnants of the PSAA for the biodiversity conservation, ecosystem services provision and maintenance and increased productivity of the land in these five biomes. Furthermore, according to Brazil's revised Law of Native Vegetation Protection (also known as the Brazilian Forest Code) these PSAA can be subjected to sustainable forest management.

The potential role of PSAA in these five biomes is made clear in Table 1. The last column summarises the PSAA estimated to be legally protected under the Brazilian Forest Code. This law recognizes the relevance of the protection of native vegetation cover in private lands for biodiversity conservation and ecosystem services provision through Areas of Permanent Protection (APP; strip of forests in riparian areas, hilltops, etc), and Legal Reserves (LR, the minimum fraction of native vegetation cover in private lands). As it can be seen, these lands (87.6 million hectares) are approximately two-and-a-half times larger than the protected areas under the National System of Protected Areas (SNUC in Portuguese acronym) (34,4 million hectares). Furthermore, other 15 to 27 million hectares should be restored in order to achieve compliance with the Brazilian Forest Code. In addition to that, Atlantic Forest Law defines suppression of private remnants of native vegetation is subjected to a serious of conditions depending on the conservation status of each remnant.

Table 1. The potential role of private set-aside areas (Legal Reserves and Areas of Permanent Protection) in the five Brazilian biomes included in the project.

Biomes	Indigenous Lands	Protected Areas	Legal Reserves and PPAs with native vegetation cover
Cerrado	9,440,000	16,819,900	**49,018,770**
Atlantic Forest	682,900	10,088,100	**14,234,207**
Caatinga	267,800	6,269,700	**18,028,834**
Pampa	2,623	483,000	**3,061,732**
Pantanal	266,900	694,800	**3,307,551**
TOTAL	10,660,223	34,355,300	**87,651,094**

Thus, private set-aside areas (PSAA) can play a critical role for biodiversity conservation, ecosystem services provision and the sustainable use of the land in Brazil. If properly managed and integrated into the landscape, these areas can provide crucial connectivity as corridors and stepping stones between larger fragments, provide buffer for public protected areas and provide crucial ecosystem services that will improve the sustainable productivity of surrounding landscapes.

Key Barriers
In order to realise the potential that PSAA can have for addressing the global environmental issues of biodiversity and ecosystem services losses, and land degradation in Brazil, and to unleash PSAA potential for appropriate sustainable forest management at scale, some key barriers must be overcome:

1) A lack of management guidelines for landscape actors, as currently Brazilian landowners have no clear guidance on how to manage their PSAA, conciliate them with their productive areas under a landscape approach and develop sustainable forest management when appropriate. Brazilian rural sector suffers from a severe lack of technical assistance and unsustainable farming techniques are prevalent. To compound the problem, there is a low level of recognition of the ecosystem services these areas provide for the wider productive landscape. As a consequence, these areas are routinely degraded through over-harvesting and hunting. Finally unclear or lacking regulations covering specific issues related to sustainable management of these areas leave farmers without clear legal guidance on management. All these issues combined create a powerful barrier for the implementation and upscaling of improved management that would lead to gains for biodiversity conservation, ecosystem services provision and more productive landscapes [*addressed by Component 1, piloted on Component 2*];

2) Federal and state regulations must be developed, implemented and evaluated, as the Brazilian Forest Code mandates general rules and requires the development of critical regulations. The problem is made worse as each state drafts their own regulations. Moreover, for the appropriate management of private set-aside areas for biodiversity conservation, these regulations must be connected to other recent and ongoing regulations, such as the national strategy for endangered species. This disconnect and lack of clarity hinders progress on all fronts [*addressed by Component 1, piloted on Component 2*];

3) The public sector must have the capabilities and tools for their systematic management and strategic planning, as the sheer size of private set-aside areas and their associated productive landscapes and their high diversity of circumstances will require systematic management and strategic planning tools, including for maximizing the complementarities with the public protected area system. Currently, unlike the other two pillars of conservation in Brazil (public protected areas and indigenous lands), there is no national management and strategic planning for private set-aside areas. A key barrier for this is the lack of tools aimed at integrating biodiversity conservation and land management considerations for a proper integrated land management planning at macro and policy levels, including the integration of associated policies (such as the national strategy for endangered species, the national strategy for restoration (PLANAVEG) and the low carbon agricultural plan) [*addressed by Component 3*];

4) Appropriate incentive mechanisms must be developed that are goal, context and actor specific, as these PSAA and their wider landscapes can serve a multitude of societal goals ranging from strict biodiversity conservation to increase agroforestry and forestry production. Currently existing public incentive schemes are based around one single objective (e.g. watershed conservation, climate change mitigation, increased agricultural productivity). Moreover there are no incentive schemes aimed at improving biodiversity conservation under SLM and SFM perspectives. The existing offset market for forest code compliance (the CRA scheme) currently includes no consideration of biodiversity conservation of ecosystem services provision, which can be a powerful tool for integrating these considerations into productive landscapes [*addressed by Component 3 and piloted on Component 2*].

2) the baseline scenario or any associated baseline projects,

In Brazil, 53% of the native vegetation cover occurs on private lands, which plays a vital role in maintaining a broad range of biodiversity and ecosystem services. The Brazilian Forest Code – FC (Law Nº 12.651/2012) is the central piece of legislation regulating land use and management on private lands. FC requires landowners to conserve native vegetation on their rural properties, setting aside a LR that occupies 80% of the property area in the Amazon biome, 35% in Cerrado Biome, and 20% in other biomes. The law also designated environmentally sensitive areas as APP, aiming to conserve water resources and prevent soil erosion. APP include both riparian areas that protect riverside forest buffers and hilltop areas at hilltops, high elevations, and steep slopes. The Environmental Ministry of Brazil estimates that **19 million ha** of forest are in private lands and without the appropriated rules or incentives to manage the biodiversity protected in these areas.

According to the Brazilian Forest Code, all landowners must register their property and identify, in a spatially explicit way, the precise limits of their LRs and APPs in the Rural Environmental Registry (CAR, in Portuguese acronym). The CAR constitutes a strategic database for controlling, monitoring and combating deforestation in Brazil, as well as for the environmental and economic planning and the manage land use of rural private lands (which includes the PSAA). More than **USD 200 million** have been invested in CAR. Currently, all landowners must include information regarding their private lands into the Rural Environmental Registry National System (SiCAR) (Fig. 1). This system provides georeferenced images where the landowners must define the location and amount of native vegetation within their property. A key mechanism to the success of the FC, the SiCAR will enable documentation of over 5 million rural properties, improving transparency and providing a pathway to environmental compliance.
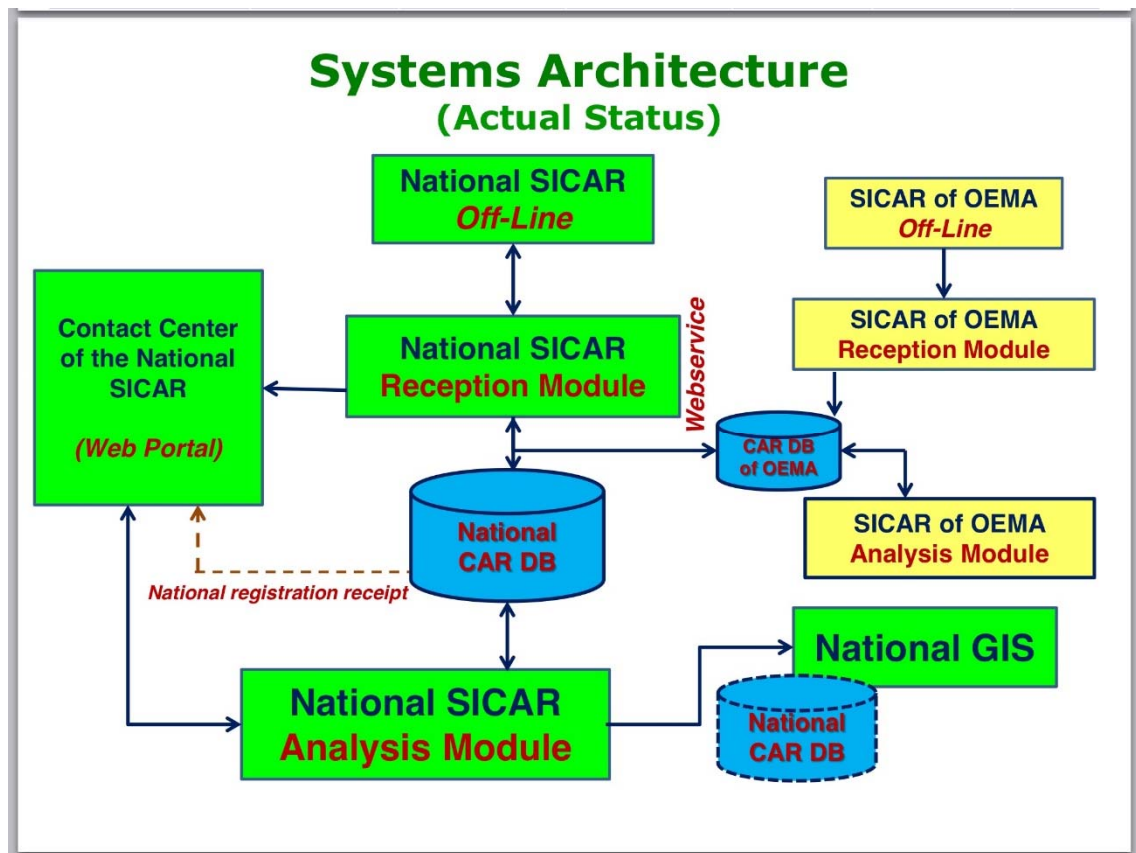
Fig. 1. The SiCAR has the registration, reception, contact center, analysis and Environmental Adjustment Program (PRA) modulates. *OEMAS: States Environmental Agencies.

The registration, reception and contact center modules are currently in operation; the analysis module is being ratified; and the PRA module is under development to be launched in the second half of 2016. Until February 2016, 269 million hectares have been registered in SiCAR (67.6% of the total rural properties area), referring to about 2.5 million rural properties. Up to now, a total of **BRL 183 million** have been invested in SiCAR, regarding satellite image, software development, training, remote sense analysis etc. This amount does not include human resources costs from Brazilian Forest Service (SFB) and MMA. Registration in the SiCAR is required for concession of rural credit, environmental compliance through restoration or compensation of illegally deforested areas, and identification of APPs and LRs.

The SiCAR provides Federal Government with the power to accurately regulate and manage the amount and location of private lands designated for environmental conservation (APP and LR), resulting in a private areas conservation system, once these lands may act as conserved PSAA, according to Target 11 of the Aichi Targets.

The Brazilian Forest Code provides the opportunity for landowners who, as of 22 July 2008 did not meet the area-based conservation requirements of the law, to instead "compensate" for their legal reserve shortages by purchasing surplus compliance obligations from properties that would then maintain native vegetation in excess of the minimum legal reserve requirements. The latter properties would either already have more forested area than required at the time of this "compensation", or have approved plans to restore sites that would permit them to exceed the minimum legal requirements in the future. This compensation instrument is termed environmental reserve quota (CRA, in Portuguese acronym), a tradable legal title to areas with intact or regenerating native vegetation exceeding the FC requirements. The CRA (surplus) on one property may be used to offset a LR debt on another property within the same biome and, preferably, the same state. Implementing the CRA could create a trading market for forested lands, adding monetary value to native vegetation. Given the high costs of forest restoration in some regions, exchange of

CRAs could become an effective way to facilitate compliance, and the best cost-benefit option, meanwhile protecting forest surpluses that might otherwise be legally deforested.

The SiCAR is the main tool to regulate rural properties' compliance and improve the enforcement. Thus, SiCAR will facilitate the market for CRAs and payments for ecosystem services. State plans and clearinghouses for trades are intended to regulate and track trading of surplus reserves between landowners, while commercial exchanges are arising to grease the wheels of the trading mechanism.

A key question to be addressed in next years is how to structure, implement and improve a CRA market to provide a balance between lowering costs of compliance of Legal Reserves deficits and creating incentives for forest protection and forest restoration in PSAA. As in Brazil the legislation allows for trading at a biome scale, this would involve trading beyond federal state boundaries, should priorities be set for such external areas that exceed the minimum legal requirement (e.g. surplus forest). If the CRA regulation tend to provide a large trade universe, the total economic gains from trade will likely maximized, but it will probably compromise environmental outcomes by largely outcompeting the restoration option as well as more expensive CRAs from forest areas under pressure. To assure that purchasing CRA results in "additional" forest conservation (i.e. greater environmental benefit than would have otherwise occurred under "business as usual"), higher priority properties should receive additional compensation per unit area. Funding for such complementary programs could come from the government as well as philanthropic sectors, but could in principle also come from carbon and/or other environmental service markets. A balanced use of CRAs from compensation and ecosystem services provision should focus on improving functional and ecological attributes of forested landscapes, e.g., habitat integrity (and thus biodiversity), carbon stocks, and water balance regulation, crucial for maintaining hydroelectric power generation in Brazil.

The Environmental Ministry of Brazil estimates that **19 million ha** of forest are in private lands and without the appropriated rules or incentives to manage the biodiversity and ecosystem services, and SFM in these areas. Considering the actual baseline, the focus of MMA and State actions has been the CAR implementation, through the development and operationalization of the system and registration actions. Gradually, as the number of registered properties has increased, already being addressed the issues associated with the module for registration validation and the discussion process and State PRAs regulations. This project offers the parallel possibility of to go preparing for a future scenario where the focus migrated to the efficient management of these PSAAs, since it develops and test methods and procedures for PSAAs protection, qualifies the environmental services provisions and provides different types of direct and indirect incentives for owners.

The major contribution of the set of methods, tools and incentives proposed on this project is to ensure better conservation of biodiversity and ecosystem services of Private Set Aside Areas, in a long-term and integrated approach, including maximizing synergies with the management of public protected areas. In addition, an effective implementation of CRAs will favour habitat conservation in private areas, in the selected pilot areas and in general rural Brazilian areas.

Associated projects:

Given the described context above, there are already some government led initiatives and projects developed with GEF funds to tackle the improvement of the protected areas systems (SNUC), and the effectiveness of protected areas, landscape and forestry sustainable management. These projects are:
• National Biodiversity Project (PROBIO) (MMA, GEF 10 M$, co-finance 10M$),

• Brazilian Biodiversity Fund (FGV, GEF 20M$, co-finance 5 M$)
• Amazon Region Protected Areas Program (ARPA) (MMA, GEF 30 M$, co-finance 59 M$)
• Rio Grande do Sul Biodiversity Conservation (RS, GEF 5M$, co-finance 6.1 M$)
• Sustainable Cerrado Initiative (MMA, ICMBIO, GO, TO, GEF 13 M$, co-finance 54 M$)
• Establishment of Private Natural Heritage Reserves in the Brazilian Cerrado (Fundação Pró-Natureza, GEF 750 K$, co-finance 100 K$)

- National Biodiversity Mainstreaming and Institutional Consolidation Project (MMA / FUNBIO, GEF 22 M$, co-finance 75 M$)
- Improving Brazilian Capacity to Conserve and Use Biodiversity through Information Management and Use (MCTI, GEF 8.1 M$, co-finance 20.1 M$)
- Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil (MMA, GEF 5 M$, co-finance 15.3 M$)
- Tabuleiro State Park: Conservation of Biodiversity and Ecosystem Rehabilitation (SC, GEF 973K$, co-finance 1.354K$)
- Amazon Region Protected Areas Program Phase 2 (ARPA II) (GTZ/WWF/FUNBIO/MMA/ICMBio, GEF 15.89 M$, co-finance 70 M$)
- Marine and Coastal Protected Areas (GEF MAR) – (MMA, GEF 18.2 M$, co-finance 98.4 M$)

Relevant projects related to biodiversity conservation in Brazil already approved or being implemented with GEF funds include: a. [A1] PROBIO (FGV, 20 M$), which aims at developing a prioritization for biodiversity conservation and of a national strategy for biodiversity; b. FUNBIO (MMA/IBAMA, 25 M$), with goals to fund projects in the context of the National Biodiversity Project; c. ARPA (MMA, 89 M$), and its continuation ARPA phase II (GTZ/WWF/FUNBIO/MMA/ICMBio, 85.89 M$), which aims to consolidate the protected areas in Amazon; d. Establishment of Private Natural Heritage Reserves in the Brazilian Cerrado (Fundação Pró-Natureza, 850 K$), to establish four RPPNs with management plans near the Chapada dos Veadeiros national park; e. Sustainable Cerrado Initiative (MMA/SBF, 67 M$), an umbrella-project to support conservation and sustainable development projects in the Cerrado biome; f. Improving Brazilian Capacity to Conserve and Use Biodiversity through Information Management and Use (MCT, 28.2 M$), with aims to provide data-driven insight to the design of policies on biodiversity conservation.

Other ongoing projects related to this proposal include: a. Project CAR-FIP in Cerrado (MMA), has as main objective to support the implementation of the Rural Environment Registry (CAR) in the Cerrado biome, as a strategy to promote the reduction of deforestation and degradation, and the increased use of sustainable forest management; b. Ecosystem services project (Instituto de Pesquisas Ecológicas – IPÊ), funded by FUNBIO/GIZ, aims to gather information and to propose methodologies for the spatialization and the economic valuation of the ecosystem services, considering the land-use and rural development; c. Community-based surveillance of biodiversity in protected areas of Amazon (Instituto de Pesquisas Ecológicas – IPÊ), with goals to engage the local communities in the protection of the biodiversity, supporting the management of the protected areas they neighbour.

The Environmental Ministry has partners from the forestry sector, as the Brazilian Tree Industry (IBA, in Portuguese acronym) that is engaged in supporting projects with potential to improve the management of PSAA. The IBA offered any area from their 5 millions of hectares to MMA's experiments and pilots programs.

Thus, most of these initiatives and projects are directed to increase the amount of public protected areas considered in the SNUC (mainly in the Brazilian Amazon), and to evaluate the effectiveness of these public protected areas for biodiversity conservation. But the implementation of SiCAR, CAR and the State Environmental Compliance Programs – PRA are related to the conservation in private lands. Thus, few of these projects are directed at Private Set-Aside Areas (PSAA) and their management in a broad SLM perspective. In such case, there are still several gaps that, if not addressed, will result in: i) main efforts concentrated in the Amazon Biome to improve public protected areas system, i.e. the biodiversity in other biomes may not be properly conserved; ii) weakening the role of PSAAs for biodiversity conservation; iii) lack of understanding about the effectiveness of PSAAs; iv) PSAAs are still not going to be appropriately accounted in the Brazilian national Biodiversity target related to conservation; v) lack of indicators to define the biodiversity conservation value of PSAAs; vi) lack of incentives for landowners to improve the biodiversity conservation value of PSAAs; vi) PSAAs misplaced in low biodiversity value areas; vii) lack of PSAAs systematic monitoring.

3) the proposed alternative scenario, GEF focal area[11] strategies, with a brief description of expected outcomes and components of the project;

The **objective of this project** is to scale up Sustainable Land Management (SLM) and improving biodiversity conservation and ecosystem services provision in Brazilian PSAA. These efforts can result in the third pillar of conservation areas in Brazil. The first two pillars, the public protected areas (according to SNUC) and the indigenous reserves, already have their systems, regulatory frameworks and strategies developed. Nonetheless, the conservation in private areas is still largely undeveloped in Brazil. In the five Brazilian biomes (Atlantic Forest, Pantanal, Pampa, Cerrado, Caatinga) targeted by this project, **these PSAAs account for 87,651,094 ha**, i.e. more than twice the other two pillars combined. Thus, the development of this third pillar can have a significant contribution to play for the sustainable management of rural landscapes, biodiversity conservation, and the ecosystem services provision in Brazil.

The **specific objectives of this project** are to: **i)** support SLM of PSAAs by coordinating and strengthening guidelines and regulatory frameworks for biodiversity and ecosystem services conservation, and forest regeneration in Legal Reserves (LR) and Areas of Permanent Preservation (APPs) surrounded by agricultural and pasture lands (productive landscapes); **ii)** implement pilot initiatives that contribute for best practices for SLM, Sustainable Forest Management (SFM), biodiversity and ecosystem services conservation in PSAAs of two key biodiversity areas (KBA, containing over 50 threatened species), and fix a sectorial agreement with forestry companies and; and **iii)** scale up SLM, SFM, biodiversity and ecosystem services conservation through improving direct (economic) and indirect (e.g. infra-structure and capacity building) incentives for landowners.

The following figure (Fig. 2) presents the workflow of the project. **Component 1** (in red) will focus on the development of coordination, SLM guidelines and federal regulations that will help private landowners to assess and monitor biodiversity and ecosystem services conservation in PSAA from Brazilian Forest Code. The guidelines developed will be pilot tested (**Component 2**, in blue) in two areas: São João River Basin APA in the Atlantic Forest Hotspot, and the Pouso Alto APA, in the Cerrado Hotspot. In parallel to the pilot testing, a sectorial agreement will be pursued with the forestry sector in order to improve the conservation values of their PSAA (up to 5 million hectares). Based on the experience and lessons learned from the implementation of Components 1 and 2, the project will develop both a Natural Asset Management System (NAMS) and Incentive package, with the goal of improving management capabilities and incentives for scaling up biodiversity and ecosystem services conservation, SLM and SFM in PSAA (**Component 3**, in green).

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[11] For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which Aichi Target(s) the project will directly contribute to achieving.
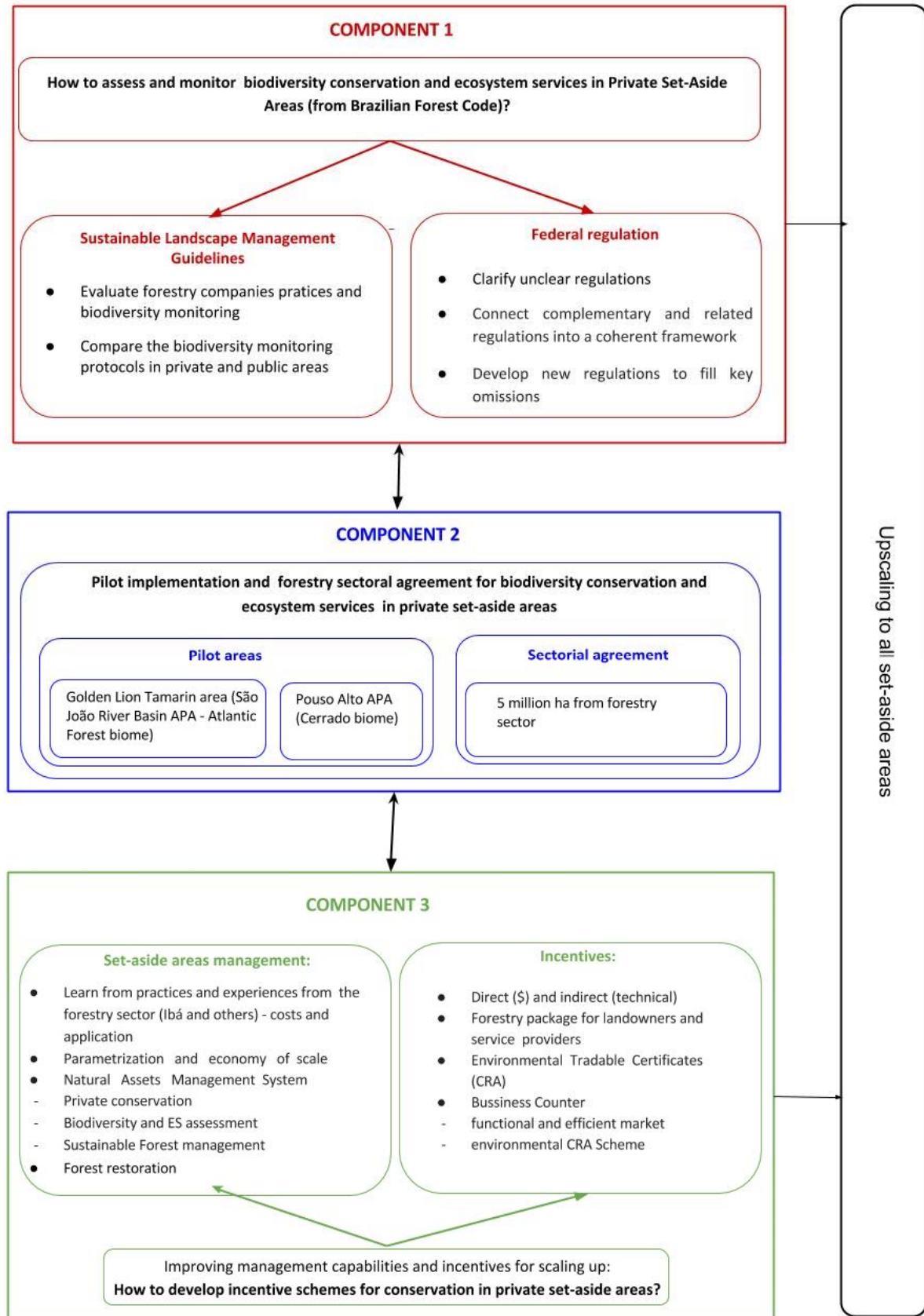
Fig. 2. Workflow of the project, which is divided into three components.

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The timing of the project is particularly appropriate, as over the next years Brazil will finish its Rural Environmental Registry (CAR, in Portuguese acronym) and will have up to **5,5 million** rural properties spatially identifying their approximately **90 million hectares** of PSAA in the five biomes (and a further **15-37 million hectares** to be restored). Therefore, this project will contribute to the fulfillment of the global Aichi Biodiversity Targets (in particular 11) and the Brazilian National Biodiversity Strategy and Action Plans (NBSAP). The former targets the conservation of, at least, 17% of the native cover vegetation, while the latter aims to promote a strategic plan to apply the Aichi Targets in the Brazilian territory.

Component 1: Guidelines and federal regulations for Private Set-Aside Areas (PSAA) established by the Brazilian Forest Code – Law 12.651/12

Similar to most Tropical regions, the major threats to biodiversity and ecosystem services conservation in Brazil are habitat loss, fragmentation and degradation (drivers). For example, the Atlantic Forest Hotspot, covering only 12–16% of its original distribution, which is severely fragmented with more than 260,000 forest remnants separated by an average distance of 1440 m from their closest neighbor. More than 80% of those remnants are smaller than 50 ha and approximately 90% of the forest remnants are privately owned. The other Brazilian Hotspot is the Cerrado biome, which has lost 46% of its native vegetation cover in recent years (at alarming rates), mainly due to the expansion of the new Brazilian agricultural frontier. The Caatinga is a biome where habitat loss also continues at alarming rates, consequently increasing habitat fragmentation and degradation. The Pantanal is a biome with a much more specific conservation scenario. There the protection under Private protected areas (RPPNs in Portuguese acronym), which is established in the SNUC, alone more than doubles the area under strict public protection. Finally, the Pampa is the least protected biome via public protected areas, where only 3% of the native vegetation is protected. Thus, the five biomes included in this project include a system (SNUC) of public protection that covers only between 3 to 9 percent of the native vegetation cover. As more than 50% of the native vegetation cover in these biomes is within private lands, it is crucial to properly include natural vegetation remnants of the PSAA under a system of biodiversity and ecosystem services conservation that can reduce habitat loss, fragmentation and degradation.

To do so, in this component, the project will address the previous problem through the development and implementation of integrated Sustainable Landscape Management (SLM) guidelines and Federal regulations. First, this component aims to promote a strategy of governance and coordination for stakeholders on biodiversity conservation and ecosystem services provision of PSAA *[Output 1.1.1]*. These stakeholders are companies, NGOs, Academy, Regional/Local Governments, small, medium and large landowners. It is a key part of the project that will give substantial support for the rest of the Component 1 and also to the Components 2 and 3.

Second, this component will build SLM Guidelines for landscape stakeholders focused on strengthening biodiversity conservation, ecosystem services provision and SFM of PSAA *[Output 1.2.1]*. The guidelines will be composed of two main parts. The first part will provide a fast and simple monitoring protocol for biodiversity and ecosystem services monitoring, which will be based on private (e.g. Forestry Companies) and governmental (e.g. ICMBio) protocols for field data collection of biodiversity and ecosystem services. While it is well documented that biodiversity in various categories of threat is hosted in these lands and needs to be better protected, this field-based information (reportable and verifiable) will allow categorizing the conservation value of PSAA. The second part of the Guideline will support the landowner management of PSAAs, registered in the SiCAR, according to their conservation value and landscape context (e.g. importance for connectivity, ecological corridors and buffer zones). The SLM Guidelines (specific for each Brazilian biome) will include several criteria for the identification of, for instance: i) spatial strategies for conserving or restoring (adding up to the National Planning for Native Vegetation Recuperation; PLANAVEG in Portuguese acronym) LR and productive areas (agriculture and pasture land) in a landscape approach, ii) the biodiversity and ecosystem services value, iii) effective conservation categories (similar to the SNUC but for PSAA), and iv) types of SFM appropriate for LR (including management of native and/or exotic species according to the Brazilian Forest Code). It is important to highlight that SFM is permitted in part of the LR according to the Brazilian Forest Code. Such type of forest management can affect biodiversity and ecosystem services conservation. Thus, it is critical that the proposed SLM Guideline provide specifications regarding how to

minimize the impacts of such activities on biodiversity and ecosystem services conservation. This is a vital question that will be addressed by this innovative SLM Guideline. Their status and progress will be assessed based on several indicators such as threatened species monitoring (Fig. 5).

Third, this component also aims to improve Federal regulations for best SLM, SFM and restoration, such as by clarifying unclear regulations or strengthening others by filling up certain gaps *[Output 1.3.1]*. For instance, the amount and the intensity of types of SFM allowed in the LR are still unclear in the Brazilian Forest Code, enabling different interpretations. Regarding the National Strategy for Endangered Species, there is still no clear regulation establishing which type/category of SFM can be performed in PSAA where threatened species are found. The assessment of biodiversity conservation and ecosystem services values in the pilot areas (Component 2) and the SLM Guidelines will support the improvement of National and state-level regulatory frameworks, creating innovative mechanisms for SFM and SLM that prevent biodiversity and ecosystem services losses in PSAA.

Thus, existing and potential habitat fragmentation is one of the key issues to be addressed by the SLM Guidelines and for the existing and new federal regulations. They should provide guidance and legal framework to development of integrated land use plans (SLM), as for example the Municipal Atlantic Forest Management, as prescribed by the Atlantic Forest Law. All technical and legal requirements would be stipulated in the SLM Guidelines.

By improving institutional coordination [*Outcome 1.1*], developing SLM Guidelines for 5 Brazilian biomes [*Outcome 1.2*] and mainstreaming ecosystem services provision and biodiversity conservation into a national regulatory framework to support SLM and SFM [*Outcome 1.3*], this project is contributing not only to enhance the human-biodiversity interface [*BD-4 Program 9*] (*indicator 9.1: production landscapes (includes landowner farms and their PSAA) that integrate biodiversity and ecosystem conservation and SFM into SLM Guidelines; and indicator 9.2: the degree to which national regulatory frameworks incorporate biodiversity and ecosystem services considerations and implement the regulations*) but also to a better landscape management and restoration [*LD-2 Program 3*] (*indicator 2.1: types of innovative mechanisms, and regulatory frameworks functioning to support SFM and restoration*).

Component 2: Pilot implementation and Forestry Sectoral Agreement

Pilot projects and sectorial agreements are essential to implement, test, improve and validate the proposed SLM Guidelines (Component 1). It is only when this is well established that Federal regulations can be improved (Component 1), i.e. components are not isolated and performed in a different time span; they are complementary and there is an important amount of interaction and feedback between them. The integration of both will result is the best practices for biodiversity and ecosystem services conservation, SFM and restoration, i.e. it is an adaptative management process. Thus, this component is divided into two fronts, of which the former includes the implementation of the SLM Guidelines (Component 1) into two pilot areas, and a training package for the Guidelines' use; while the latter implements a sectorial agreement with the forestry sector. To achieve these objectives, two pilot areas were specifically chosen; both are in KBAs but in two different hotspot biomes, the Atlantic Forest and the Cerrado. Both areas meet the IUCN KBA classification under the vulnerability criterion, since there are occurrence of globaly endangered species (according to the IUCN Red List) (Fig. 3 and 4).

For the first time, a forestry agreement will be set up to improve the management of PSAA in Brazilian Tree Industry areas (IBA, in Portuguese acronym). This partnership between the Environmental Ministry and the IBA already exists, which facilitates this sectorial agreement. The IBA areas are widely spread across the five Brazilian biomes involved in this project. The two KBA pilot areas add up to at least **1,022,700 hectares**, while the IBA areas to some **5 million ha (but only part of this amount will have SLM Guidelines implemented by Forestry companies)**. Thus, the SFM Guidelines will be implemented, tested and validated in different pilot areas (by the project in KBA and by IBA in their areas) at the landscape level.

The first pilot project will be in a high conservation value area in the State of Rio de Janeiro, Atlantic Forest Hotspot (approximately **150 thousand hectares**) (between Lat. -22.744335169 and -22.4009074999999; Long. -

The Environmental Protection Area (APA, which is established in the SNUC as a sustainable protected area that can be managed) of São João Basin was chosen for its symbolic value for biodiversity conservation: it hosts **6 globally endangered species** (Fig. 3). Further, it hosts the Golden Lion Tamarin Project which aims to rescue the endangered *Leontopithecus rosalia* from the brink of extinction. The Project protects the largest populations of the species in two public strict protected areas, but a severe lack of landscape connectivity is hampering the species' recovery. By an effective SLM in PSAAs, crucial connectivity for safeguarding the future of the species could be provided. Thus, the project will use this iconic and threatened species as the focus to increase the potential biodiversity conservation outcome of the region via an integrated SLM planning for PSAAs *[Output 2.1.1]*. In the highly fragmented São João Basin (Atlantic Forest), the PSAA can be managed at the landscape scale with the purpose of increasing connectivity conservation to maintain metapopulations of the Golden Lion Tamarin. PSAA are thus a valuable potential complement to the Brazilian SNUC network. If well implemented and managed, the PSAA can increase biodiversity and ecosystem services conservation, without having a large cost to government. It is also important to highlight that SFM is permitted in LR (part of the PSAA), thus specifications regarding this type of management are also required to be considered.
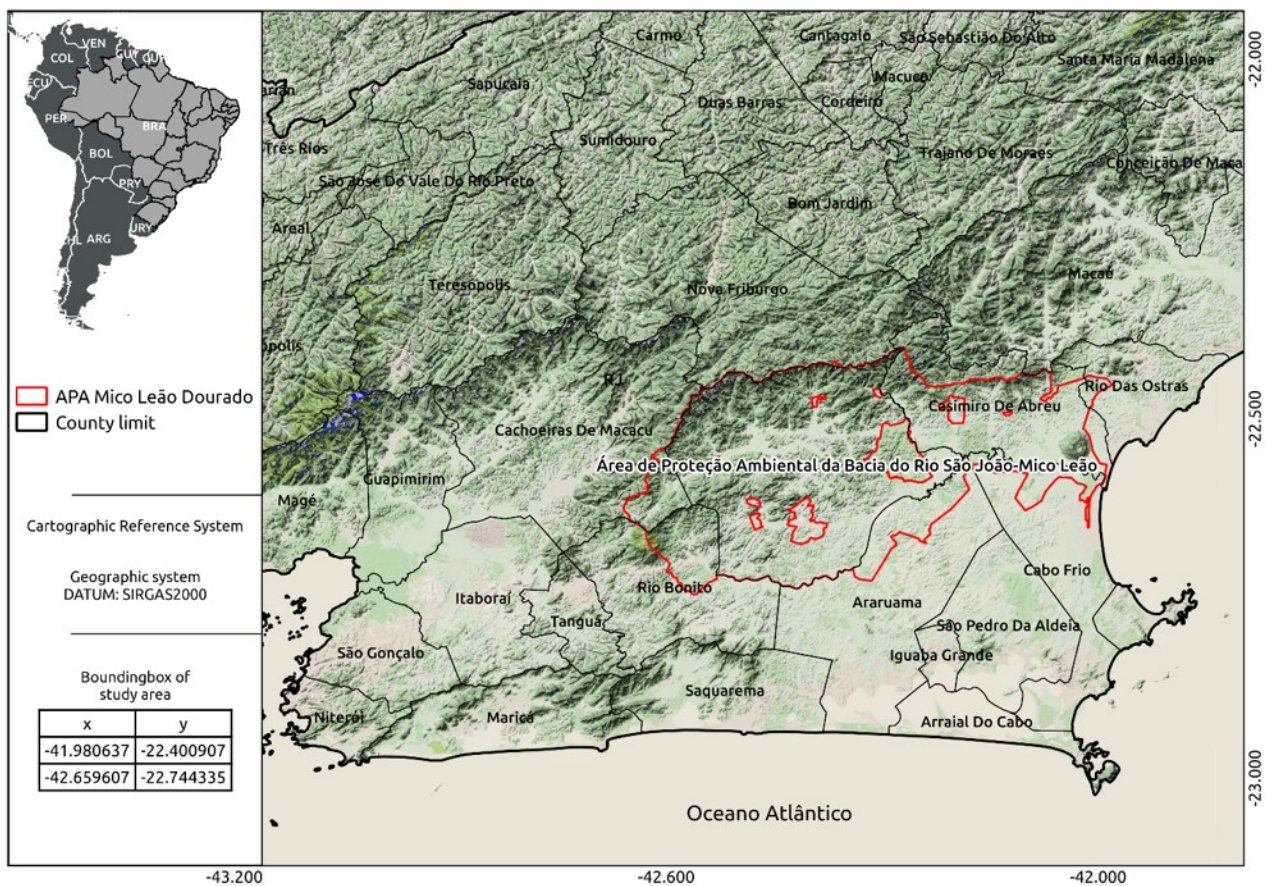
São João Basin APA
Bradypus torquatus
Leopardus pardalis mitis
Leontopithecus rosalia
Microcambeva barbata
Parides ascanius
Puma concolor capricornensis

Fig. 3. The São João Basin APA and it hosts 6 globally endangered species.

The second pilot area is the Pouso Alto APA, which covers approximately **850 thousand hectares**. Two thirds of the region is covered by Cerrado biome, the other Brazilian hotspot. The Pouso Alto APA has currently **45 globally endangered species** (Fig. 4) (between Lat. -14.465423584 and -13.4572611679999; Long. -48.24472363 and -47.069749797). The fact that the area is already legally established as an APA would guarantee that the integrated SLM approach can be executed within the duration of this proposed project *[Output 2.1.2]*. The approach and activities proposed for this KBA will be similar as in the first pilot area; however, in this pilot area it will not be species-specific as there are many globally endangered species. Despite being a KBA, this most diverse Savannah has biodiversity that is still little known and highly threatened since the region suffers with alarming rates of deforestation in the last years due to the expansion of the new Brazilian agricultural frontier. Therefore, the SLM Guidelines for this region need to focus on the avoidance of the further expansion of agriculture by applying proper SLM and thus achieving better productivity without the need to further encroach habitat areas, whilst at the same time increasing the biodiversity and ecosystem services conservation and value. It is also important to account for the species complementarity, i.e. design the PSAA in a way in which most of the endangered species have minimum viable area to persist in the long-term. This will be addressed as the SLM Guidelines - which include spatial strategies for conserving or restoring - are implemented (Component 1). In this APA, there is a large public protected area (National Park of Chapada dos Veadeiros – this protected areas is being enlarged by Brazilian government from 65 to 245 million ha), but such effective conservation can be improved as the PSAA of the region begins to act as ecological corridors, stepping stones or buffer areas. In addition, recently this APA had approved in their management plan an extra factor that can help biodiversity conservation. The LR in each property needs to preserve, at least, 85% of the native vegetation cover. Thus, the PSAA will be large in this region, facilitating species connectivity and persistence in the long-term.
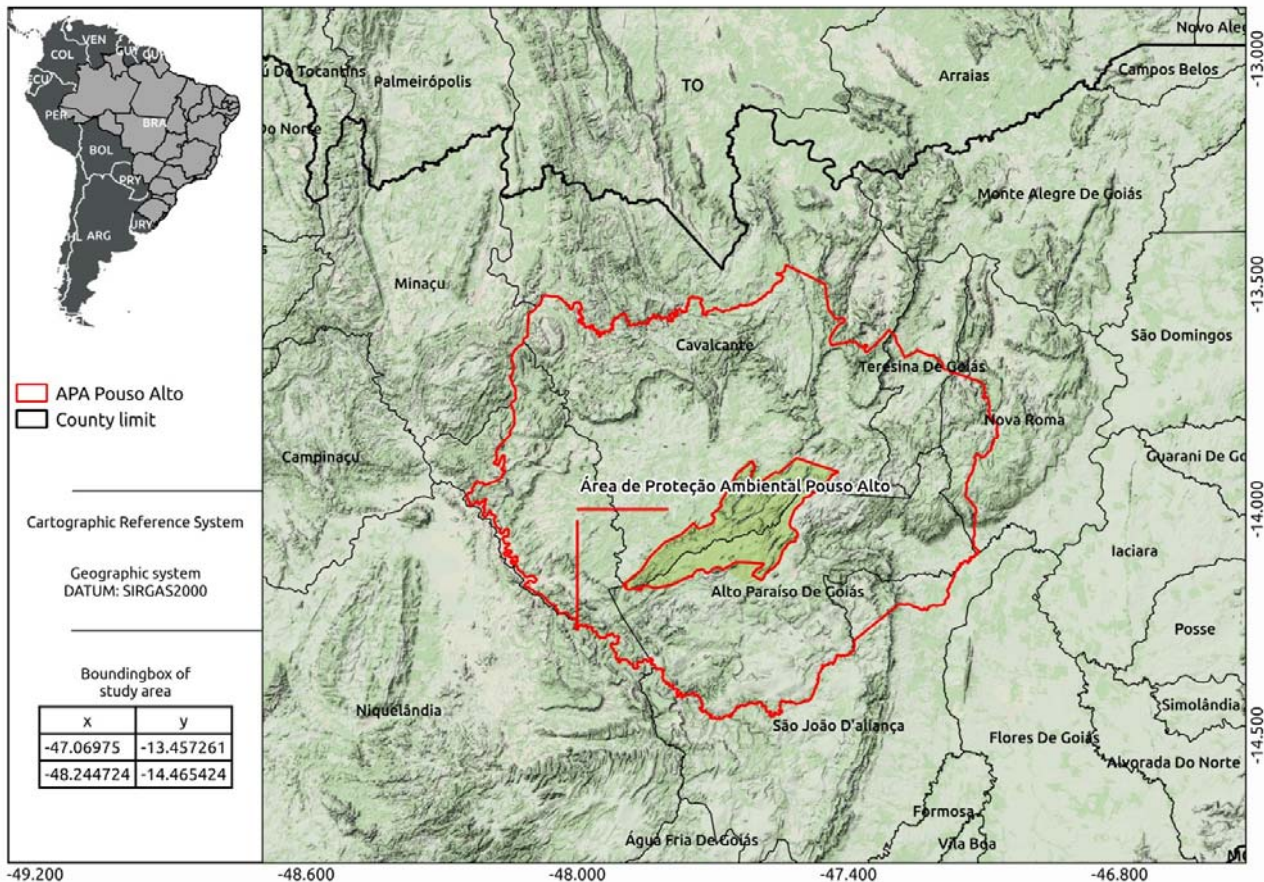
Pouso Alto APA		
Aldama filifolia	*Cyanocephalus digitatus*	*Hyptis pachyphylla*
Aldama goyazii	*Cyanocephalus tagetifolius*	*Hyptis penaeoides*
Anemopaegma arvense	*Dimerostemma grazielae*	*Lessingianthus souzae*
Apuleia leiocarpa	*Diplusodon hatschbachii*	*Lessingianthus stoechas*
Attalea brasiliensis	*Echinocoryne echinocephala*	*Microlicia psammophila*
Axonopus fastigiatus	*Eremanthus argenteus*	*Mikania alvimii*
Banisteriopsis hatschbachii	*Eriope machrisae*	*Mikania viminea*
Banisteriopsis hirsuta	*Euterpe edulis*	*Podocarpus brasiliensis*
Bromelia macedoi	*Evolvulus rariflorus*	*Polygala tamariscea*
Calea abbreviata	*Froelichiella grisea*	*Pombalia strigoides*
Camarea humifusa	*Hypenia aristulata*	*Richterago petiolata*
Cambessedesia atropurpurea	*Hypenia subrosea*	*Ternstroemia cuneifolia*
Cattleya walkeriana	*Hyptis colligata*	*Triraphis devia*
Chresta souzae	*Hyptis cruciformis*	*Vellozia sessilis*
Cleistes aphylla	*Hyptis imbricatiformis*	*Wunderlichia cruelsiana*

Fig. 4. The Pouso Alto APA and it hosts 45 globally endangered species.

To implement the guidelines in the pilot projects it is also required to engage interested stakeholders such as small, medium and large landowners (both women and men) *[Output 2.1.3]*. Some of these actors will be trained for the use of the SLM Guidelines (training package). Training will be focused on influential stakeholders from 9 states (included in the 5 biomes included in this project) that will further be able to give technical assistance and to disseminate the use of the Guidelines elsewhere. The training package will be composed of workshops, online tools and online materials. Again, it is important to highlight that the components and outputs are not isolated, i.e. they receive feedback from each other. Thus, the on-the-ground pilot to apply SLM Guidelines will be facilitated by the engaged stakeholders who will disseminate and apply the SLM Guideline's recommendations after training.

The success of the project will be assessed and monitored based on several indicators. These include both landscape ecology indicators as well as endangered species monitoring. The former includes Intact vegetative cover; Fragmentation composition indexes (number of patches, patch density, effective mash size and core area); fragmentation shape indexes (perimeter area ratio, fractal dimension and square pixel); and fragmentation configuration indexes (buffer index, nearest neighbour, connectivity, patch cohesion, lacunarity and contagion) in production landscapes measured in hectares as recorded by remote sensing, and habitat availability. Monitoring of

endangered species will focus on the Golden Lion tamarin (*Leontopithecus rosalia)* population in Atlantic Forest pilot area of the São João Basin APA. Two endangered species' population will be monitored in the Cerrado pilot area of the Environmental Protected Area of Pouso Alto APA: the "Pali Palã" grass (*Syngonanthus appressus*) and the hardwood "Aroeira" (*Myracodruon urundeuva*). Their occurrence will be monitored (Fig. 5).

The second front of the component aims to establish a national sectorial agreement with the forestry sector in order to improve the conservation values of their PSAA. The forestry sector in Brazil holds approximately **5 million hectares** in PSAAs (IBA areas), but these areas are not properly integrated into the national conservation planning, have no clear regulations and guidelines for biodiversity conservation and their owners routinely complain about a lack of recognition for the services these areas provide. This output will work directly with the leaders of this sector in developing a sectoral agreement that addresses these shortcomings *[Output 2.1.4]*. The national sectoral agreement will help the future establishment of SLM Guidelines in IBA areas by the forestry companies (i.e. they will implement this Guideline in their areas), consequently improving the biodiversity and ecosystem services conservation and values. As the IBA areas are widely spread across the five Brazilian biomes contained in this project, the SLM Guidelines need to be implemented considering different specificities of each biome. Nowadays, the vision of sustainability is a priority on the agenda and the forestry companies, so biodiversity and ecosystem services conservation can be improved via an effective SFM in LR (part of the PSAA) under IBA areas. Thus, the SLM Guidelines in these specific regions need to inform the stakeholders of this productive sector how to better diversify the economic use of planted forest and involve small landowners to improve conservation.

Project's direct impact (area impacted by the Investment, listed as targets on Table F)	Total Area (ha)	Natural Vegetation Area (ha)	Productive Landscape Area (Agriculture/Forest Plantations) (ha)	Element of biodiversity to be monitored and measured to assess biodiversity outcomes in these areas
Atlantic Forest pilot area of the São João Basin APA (KBA area in the State of Rio de Janeiro)	150,700	64,801	76,857	Golden Lion tamarin (*Leontopithecus rosalia)* population in Atlantic Forest pilot area of the São João Basin APA (KBA area in the State of Rio de Janeiro) Landscape ecology indicators on both cases (including Intact vegetative cover and degree of fragmentation in production landscapes measured in hectares as recorded by remote sensing, and habitat availability)

Cerrado pilot area of the Environmental Protected Area of Pouso Alto APA (KBA area in the State of Goiás)	870,000	730,800	139,200	"Pali Palã" grass (*Syngonanthus appressus*) and the hardwood "Aroeira" (*Myracodruon urundeuva*) species population in the Cerrado pilot area of the Environmental Protected Area of Pouso Alto APA (KBA area in the State of Goiás) Landscape ecology indicators on both cases (including Intact vegetative cover and degree of fragmentation in production landscapes measured in hectares as recorded by remote sensing, and habitat availability)
Project's indirect and scaling-up impact to be realized through the tools and agreements in the future.	12,000,000	5,000,000	7,000,000	As part of the sectoral agreement, forest companies are expected to implement project output 1.2.1 (Biome specific SLM Guidelines), which will include several indicators to assess status and progress (including threatened species monitoring when present).

Fig. 5. Description of impacted area and indicators to be used for each pilot area.

These initiatives will contribute to the increased application of best practices for biodiversity conservation, ecosystem services provision, integrated into SLM, and SFM by several stakeholders in PSAA *[Outcome 2.1]*, engaging local participants and considering its gender local needs. Further, they will contribute specifically to the increased vegetative cover, reduced fragmentation and increased population of endangered species such as the Golden Lion Tamarin, the Pali Palã grass and the Aroeira *[Outcome 2.2 and 2.3.]*. Therefore, this component is contributing for managing the Human-Biodiversity Interface *[BD-4 Program 9]* (*indicator 9.1: production landscapes (includes landowner farms and their PSAA) that integrate biodiversity and ecosystem conservation and SFM into SLM Guidelines)*, supporting the scaling up of SLM *[LD-3 Program 4]* (*indicator 3.2: application of integrated SLM practices in landscapes containing PSAA*), and capacitating SFM within local communities *[SFM-2 Program 5]* (*indicator 3:stakeholders involved with the SFM practices*).

Component 3: Improving management capabilities and incentives for scaling up biodiversity conservation, ecosystem services, SLM and SFM in PSAA

The third component will firstly aim to create a Natural Asset Management System (NAMS), in order to provide the necessary tools for macro level policy and strategic planning related to private set-aside areas. Building upon the large baseline investment being made to develop and populated the SiCAR system, the NAMS will allow the government to plan macro level policies that aiming at mainstreaming biodiversity conservation considerations of private set-aside areas into broader productive landscapes. The NAMS will be developed based in three nested components, including improving PSAA conservation, natural capital measuring and biodiversity and ecosystem services management *[Output 3.1.1]*. This will allow a best management of natural capital in PSAA, as by assessing

the economic value of different management regimes of PSAAs, economic mechanisms can be implemented in accordance with the cost-effectiveness of target areas.

Secondly, an incentive package will be created focused on improving the incentives for biodiversity considerations by private landowners and integrating them into their wider productive landscapes. One example of incentive schemes will be including biodiversity conservation and SLM considerations into the CRA offset market, in order to prioritise biodiversity conservation and ecosystem services provision in PSAA. It will be concentrated in strengthening a business counter for negotiation of CRAs. Currently there are business counters for forest surplus based on CRA, but none using the biodiversity conservation efficiency of PSAA. An incentive package based on biodiversity conservation of PSAA should improve the habitat quality of threatened species and direct the capital flow for areas with more biodiversity conservation efficiency *[Output 3.2.1]*. The expected result is that Biodiversity conservation, ecosystem services provision, SLM and SFM in PSAA are enhanced. The Brazilian Forest Code and its compliance may be strengthened by possible new innovative incentives. Since the Brazilian Forest Code defines the forest restoration of degraded areas, the outputs will also create incentives for restoration in strategic areas and maintain the PSAA registered in Brazilian CAR.

CRA if well implanted under the guidance of a good legal framework and strong guidelines (outputs from Component 1) could be one key factor to reduce pressure for legal deforestation beyond the set aside areas limits defined for the different biomes. In a SLM strategy, it would be instrumental if we could provide different sources of incomes for farmers coming from at least two different types of CRAs, one coming from the trade between surplus and deficits of LR; and the another one coming from environmental services provided by these PSAA. The success of the NAMS and the Incentive Package will also be evaluated according to the already mentioned indicators (Component 2) (landscape ecology and endangered species monitoring) (Fig. 5).

Both outputs are aligned GEF's objectives for to BD, LD, and SFM. Their outcomes are aligned with GEF's objectives: Human-Biodiversity Interface *[BD-4 Program 9]* (*indicator 9.1: production landscapes (includes landowner farms and their PSAA) that integrate biodiversity and ecosystem conservation and SFM into SLM Guidelines*), better landscape management and restoration [*LD-2 Program 3*] (*indicator 2.1: types of innovative mechanisms functioning to support SFM and restoration*), supporting the scaling up of SLM *[LD-3 Program 4]* (*indicator 3.2: application of integrated SLM practices in landscapes containing PSAA*), and identification and maintenance of high conservation value forests *[SFM-1 Program 2]* (*indicator: incentive mechanisms to avoid the loss of high conservation value forests*).

Broad view of GEF strategies and this project:

BD
The potential of this project for the protection of globally significant biodiversity on private lands and increasing the effectiveness of habitats´ conservation is presented in section 5 of part II. This project is about mainstreaming biodiversity considerations in private landscapes mainly with the forestry sector and as such is best placed under the GEF BD 9 programme. It will develop and incorporate the necessary tools and methodologies integrating conservation and sustainable use of biodiversity into the management schemes applied by private land owners. These tools, methodologies, guidelines and regulatory frameworks will be piloted in two key biodiversity areas. They will also be part of a sectorial agreement with the forestry sector. At a macro policy level the project will deliver the necessary elements for shaping policy instruments pertaining to the forest code including the effective application of incentives schemes to elicit better conservation. In doing so, it will be directly contributing to outcomes 9.1 and 9.2 of this program respectively.

LD
The Brazilian Rural Environmental Registry System (SiCAR), currently covering 70% of Brazilian private lands, is already allowing an unprecedented picture of how Brazilian productive landscapes are used, including in-farm subdivisions of productive and set-aside areas. But to allow an effective implementation of this code on the ground and to properly manage these vast land areas under SLM schemes that combine multiple uses including agriculture,

forestry and reserves (set-asides) however, it will be necessary to develop and apply the appropriate support mechanisms whilst fostering an integrated landscape management approach, both of which are presently absent. This project will pilot such approaches in some 1 million hectares to test the land use planning and technical as well as financial elements. In parallel, a sectoral agreement will also be developed in order to improve sustainable land management with the forest sector, which holds approx. 12 million hectares of private lands, of which 7 million are in productive use and 5 million as set-asides. Once the schemes are tested it will make provisions such as federal regulations and incentives schemes that can potentially scale up SLM even further, replicating the tools and landscape approach on more areas with private land owner agreements. By thus fostering improved decision making for competing land uses and scaling SLM to the landscape level these combined issues fit squarely within GEF 6 LD programmes 3 and 4.

SFM
Under the project's integrated landscape approach including SLM that takes pressures off the forest set-aside areas by better organizing land use and improving productivity in dedicated areas, important drivers of forest degradation will be addressed. At the same time through SFM an enhanced management scenario will be achieved in those forest areas of Private Lands that allow management.. In this way, the project contributes to goals under SFM objectives 1 and 2. More specifically, the most relevant alignment is with programmes 2 and 5 respectively. The former as high conservation value forests will be identified and be the target of specific regulations and incentive mechanisms, particularly in the pilot areas. The latter as capacities will be developed for SFM with the engagement of local stakeholders and private sector actors.

Aichi target that this project will directly contribute to achieving

Brazil has already communicated to the CBD that it intends to include private set-aside areas (PSAA) as part of its efforts towards Target 11. That is so because target 11 includes "protected areas and *other effective area-based conservation measures*". However, there is no clear guideline or definition to classify areas as OECMs, in particular regarding to their effectiveness. Some argue that OECMs should have the purpose of – and be managed specifically for – biodiversity conservation. However, OECMs can encompass a range of protection levels, from fully protected areas to areas with few restrictions on land-use activities, so other claim that including these private set-aside areas as part of the target can be detrimental to biodiversity conservation.

This project aims to contribute to Target 11 by improving the biodiversity conservation value of private set-aside areas and making them, as target 11 mandates, "*effectively* and *equitably managed"* and "*integrated into the wider landscape"*.

4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;

Territorial planning for conservation in Brazil follows a strategy that is based on three. The first two are the public protected areas and the indigenous reserves, which already have their systems, regulatory regimes and strategies. However the third one, which is the conservation in private areas, is still largely undeveloped in Brazil. As in the five non-Amazon biomes that are the focus of this project these PSAA account for more than twice the other two pillars combined, the development of this pillar can have a significant contribution to play for the biodiversity conservation, the ecosystem services provision and rural development in Brazil. Hence this area requires decisive development and support to effectively reduce pressures on biodiversity, land use and ecosystem services.

The Government of Brazil has carried out important programmes and investments to achieve sustainable development goals whilst protecting the important natural resource base of this mega-biodiverse country. These also comprise the project target area on private lands. As described in the baseline scenario and perhaps the largest and very relevant undertaking has been the establishment of the Rural Environmental Registry CAR, which has cost so far over **USD 200 million**. In addition, it has developed the SiCAR, which is the online accessible database system

for landowners to define the location and amount of native vegetation within their property (refer to baseline description above) http://www.car.gov.br/#/.

These database platform and tools constitute a strong baseline for the management of privately owned land and the conservation of areas relevant for biodiversity and ecosystem services in relation to the Brazilian Forest Code. However, these investments alone are not sufficient to provide a solid enough system to guarantee that the highest value conservation areas are given priority in land use planning, and also that adequate protocols for Sustainable Landscape/Forest Management are applied at the wider landscape in these property areas. Important barriers still exist to guarantee the full utilization of these systems and adequate application of incentives. A two pronged approach is thus proposed as depicted in the graph presented in the alternative scenario description under 3) above to overcome the present barriers. Building on this comprehensive baseline system, the alternative scenario proposed by the project will complement this elements provided by (SiCAR) and by developing instruments such as key guidelines under component one and the proper incentives mechanism application details under component three combined with the other elements of the proposal, transform the vast baseline investments into a powerful system for integrated landscape approach and conservation in private areas. The SICAR works well as a comprehensive data base and information system, providing the government with the necessary information and control for rural environmental registry. But it does not go far enough to help private land owners in the project target areas to plan and manage their territories strategically to realize their potential for conservation. As such, currently Brazilian landowners have no clear guidance on how to manage their PSAA, conciliate them with their productive areas under a landscape approach and apply sustainable forest management as appropriate. Therefore the GEF increment will support the technological innovation that is necessary to develop the software and other complementary key elements to tap in to the SICAR system and provide land owners with the tools they need in terms of effective SLM with an integrated landscape approach. As such important co-financing investments from government and partnering institutions together with GEF will allow developing the technical elements, capacities and improved mechanisms that are necessary to complement this system. Whilst the registry system would function even without GEF, providing the information and control over lands, the incremental cost will add value to achieve the effective mainstreaming of biodiversity providing the technical/scientific knowledge base for sound decision making up to the sector policy level. Significant investments and efforts that constitute an important baseline for this project have gone already into developing the Brazilian Forest Code, which mandates basic rules in terms of environmental considerations. But for this powerful legal instrument to deliver global environmental benefits, critical regulations are still to be developed. Through the development, testing and scaling of SFM and SLM protocols as well as adequately tailored incentives schemes, the GEF increment will complement the national forest code to ensure that socio economic development goals are paired with environmental benefits of global scope. The CRA constitutes a compensation market mechanism to facilitate compliance with the forest code exigencies as part of the baseline elements. However, to make it more biodiversity friendly, the necessary increment to add conservation value of global significance will be achieved through the development of appropriate incentives mechanisms which are goal, context and actor specific, as the PSAA and their wider landscapes can serve a multitude of societal goals and thus land uses, ranging from strict biodiversity conservation to increased agroforestry and forestry production.

Finally, the large field pilot projects and the sectorial agreement would not happen in the absence of GEF financing, and will deliver large scale benefits for threatened biodiversity conservation and expansion of sustainable landscape and forest managements in two key biodiversity areas in Brazilian global biodiversity hotspots.

5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

Global environmental benefits in the BD focal area will be derived from the conservation of key biodiversity (Refer to list below). The landscapes targeted by the project in this mega-diverse country contain biodiversity of global significance in terms of habitats and species listed some of them listed under various relevant categories of threat. In particular the pilot activities planned under Component 2 will take place in two **Key Biodiversity Areas (KBA)**:
i) the São João Basin APA in the State of Rio de Janeiro, in the Atlantic Forest Global Hotspot. This **150,700 hectares** KBA hosts the **six globally threatened species**. This area is well known due to the Golden Lion Tamarin Project, which has rescued the endangered *Leontopithecus rosalia* from the brink of extinction.

ii) the Pouso Alto APA in the State of Goáis, Cerrado Global Hotspot, is another **850,000 hectares** KBA containing **45 globally threatened species**.

Global environmental benefits expected under the **Land Degradation** and **Sustainable Forest Management** focal areas are closely interrelated and associated with improved provision of ecosystem services and the concomitant agricultural/forestry productivity that will be piloted and upscaled as described in alternative scenario. Promoting a landscape approach with private landowners for their properties with multiple and sometimes conflicting land uses, there will be positive interactions and repercussions between the provisioning of ecosystem services from high conservation value forested areas such as reduced degradation of lands at the wider landscape level, water capture and regulation, soil conservation and fertility improvement, as well as those derived from biodiversity. Vice versa, based on proper SLM/SFM practices/protocols and sound decision making for land use planning in the productive areas, there will be an important reduction of pressures on PSAA dedicated to conservation). This is particularly beneficial for forest areas of high biodiversity value, as the tools (both technical and in terms of incentives) provided by the project will help landowners to better assess and monitor biodiversity and ecosystem services to know which areas to preserve and which to dedicate to production under sustainable use protocols. Within this landscape, areas dedicated to production will also benefit from the application of SFM protocols promoted by the project and thus contribute to conservation of biodiversity and ecosystem services at the same time as to their sustainable use for productive purposes. The reduced deforestation (in the case of Pouso Alto / Cerrado pilot area) and increased restoration (in the case of Rio São João / Atlantic Rainforest pilot area) will mitigate an estimated 48 million tonnes of CO_{2e} (Refer to Annex 1).

Direct environmental benefits perceived from the project will be derived from the intervention on two pilot sites on some **1 million hectares** of landscapes combining private productive areas and PSAA including KBAs. In addition beyond the lifetime of the project - and thus not claimed as direct benefits nor measured during its implementation - there is an important potential for much wider impact: The tools and agreements developed by this project will enable future scaling up of these direct benefits into **12 million hectares** of which **7 million** are in production and some **5 million** are PSAA for conservation.

6) innovation, sustainability and potential for scaling up.

This project will develop an **innovative approach** to dealing with the regulation of native habitats on private lands as priority areas for biodiversity conservation, sustainable landscape and forests management. By combining new tools aimed at both landscape level and macro policies, new regulation and targeted incentive schemes, large field pilots and sectoral agreements in a single package, the project aims to achieve a paradigm shift in the role of PSAA in biodiversity conservation, ecosystem services provision and sustainable landscape management. The project's innovation is also related to the fact that it aims squarely at addressing one of the pressing issues in global conservation, the Aichi Target 11-related OECMs, currently the subject of an extensive global review on their appropriate implementation.

As for the **potential for scaling up** in Brazil itself, the experienced learned from the **one million hectares** in KBA pilot areas, , the sectorial agreement experience, and the management guidelines, systems and incentives packages developed will serve for the basis of a national system that will be responsible for the **88 million hectares** of PSAAs in these 5 biomes, in addition to areas in the Amazon biome. Internationally, the novel PSAAs integration systems proposed here could serve as a model for integrating OECMs into broader conservation planning elsewhere in the world, and the associated incentives mechanisms could also be useful in order to increase their effectiveness in other regions of the world.

The project's **sustainability** is also guaranteed by the fact that all its main outputs (the guidelines, management systems, legal regulations) are going to remain available and in place after the project's end, and will enable the scaling up of biodiversity conservation and ecosystem services provision into 12 million hectares of private lands in Brazil. Furthermore, the pilots interventions plans are going to be designed having environmental, social and

economic sustainability at their core, aiming to ensure that the transitions to more sustainable landscapes are fully underway during the project's lifetime and can stand on their own legs after the project's completion.

2. *Stakeholders*. **Will project design include the participation of relevant stakeholders from civil society organizations (yes ☒ /no☐) and indigenous peoples (yes ☐ /no☒)? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.**

Institution	Role	Responsibilities in the project
Ministry of Environment (MMA)	GEF Operational Focal Point and National Environmental Authority	Responsible for project execution and overall coordination.
United Nations Environment Programme (UNEP)	GEF Implementing Agency	The implementing agency will provide general technical and administrative support, management tools, and theoretical and practical knowledge to the executing agencies. It will be important for the execution of the project's activities, helping to ensure an effective and timely delivery of the desired outputs. This project will benefit from the existing collaboration between the UNEP office in Brazil and UNEP-WCMC, who will provide technical and strategic support and guidance to the development of the project's outputs and the incorporation of its results into policy making processes. UNEP-WCMC will also support the outreach of this project and sharing of lessons learned internationally.
The Pontificia Universidade Católica do Rio de Janeiro	Lead Implementing partner	Components 1, 2, 3: PUC-Rio, through its Rio Conservation and Sustainability Science Centre (CSRio), will coordinate the execution and technical implementation of the project. Another Centre based at PUC, the Climate Policy Initiative (CPI) will also contribute with economic analysis and co-develop incentives for conservation.
State Governments	State Authorities and Beneficiaries	Components 1, 2, 3: The State governments will play an important role in the project development such as: i) establishing state regulations of incentives for improving the effectiveness of conservation in PSAA; ii) contributing to the dissemination of a decision support system to state agents, as well as the guidelines for conservation and the system for economic incentives in private areas; iii) supporting the implementation of the pilot program. State governments are key stakeholders for the execution of the project and will benefit from the PSAA training package.
Atlantic Forest Restoration Pact (Pacto)	Contributor	Components 1 and 2: The PACTO is the largest NGOs network for forest restoration in a biome scale in

		Brazil. It aims to address high priority policies, programs and projects on a large scale in order to restore areas in the Atlantic Forest biome. Further, it will support the coordination and dissemination of initiatives proposed in the project between NGOs.
Civil Society Organizations	Implementing partner	Components 1 and 2: Non-governmental organizations with experience in field projects, such as Instituto de Pesquisas Ecológicas, Onda Verde and IPAM, Associação Mico Leão Dourado, will perform field assessments in order to implement the guidelines in the PSAA. These organizations will also be important partners in the dissemination of results and forest companies and landowners training.
International Institute for Sustainability (IIS)	Implementing Partner	Components 1, 2, 3: The IIS, a non-profit civil society organization, has been collaborating with MMA to develop a strategy of forest landscape restoration for Brazil. In this project, it will contribute to the development of SLM guideline and NAMS for scaling up biodiversity conservation, as well as a to-be-defined decision support system.
Brazilian Foundation for Sustainable Development (FBDS)	Contributor	Components 1 and 2: The Brazilian Foundation for Sustainable Development will contribute to develop the SLM guideline in order to evaluate the effectiveness of PSAA. It will also facilitate the engagement with the private sector.
Small, medium and large landowners	Beneficiaries	Components 1, 2 and 3: The project will involve the landowners who own PSAAs. They will play an important role in the process of understanding the maintenance mechanisms of their PSAA. In addition, they will provide information about their PSAA for the guideline creation, and they will be trained to understand and assess the environmental and economic benefits of private areas from the NAMS created in the proposed project.
Brazilian Tree Industry (IBA)	Implementing partner	Component 2: The IBA is an association responsible for institutionally representing the planted tree production chain, from the field to the industry with its main stakeholders. In this Project, the IBA will support the implementation of SLM guideline in 5 biomes (7 States).

3. Gender Equality and Women's Empowerment. **Are issues on gender equality and women's empowerment taken into account? (yes ☒ /no☐). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.**

In Brazil and worldwide, women are important economic agents that contribute to the family income and the development of their communities in many ways, especially in rural areas. They work as entrepreneurs, as rural workers in family businesses, as autonomous. Likewise, they also play an important role on the conservation of natural resources as they utilize and conserve these resources to supply basic needs for their families.

Unfortunately, women contribution is still limited by unequal access to resources as well as the persistent discrimination and rigid gender roles, issues that need to addressed to ensure the full range of its potential. Conservation of natural resources, particularly, cannot be done without the involvement and training of women. They need to be educated on the values, management and sustainability of natural resources. And to succeed, they must not only be appreciated as visible land managers, but also benefit from relevant incentives and policy instruments.

Understanding the different uses and interaction with by women and men with natural resources management should be considered an essential element of designing and planning management interventions.

In order to address this need, this project will be designed and implemented (following UNEP and national guidelines) based on a gender analysis that will be carried out during the process of developing the full project proposal. Particular attention will be given to ensure that the outcomes of this project promote equal opportunities and have no negative impact on women. It will also ensure that women-headed households and landowners, as well as, lower income groups are given prioritised access to support.

The role of women on the management of set aside areas and the conservation of biodiversity and ecosystems services will be acknowledged and strengthened by this project. Women access to the economic incentives will be promoted and gender issues will be taken in consideration by the legal instruments that will be developed during the course of this project.

The SLM guideline which will be developed by this project, for instance, will include a section on gender issues and its testing in the Atlantic Forest pilot area of the São João Basin APA will count with the participation and target key female stakeholders. Similarly, this project will ensure that both women and men are offered equal training opportunities supported through this investment.

In addition to the gender analysis, gender disaggregated target and baseline will also be established where appropriate as part of the project monitoring plan.

4 Risks. **Indicate risks, including climate change, potential social and environmental 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 (table format acceptable).**

Risk	Rating	Mitigation
Producers do not comply with the Brazilian Forest Code.	Medium	Promoting the regulation of PSAA will create/enforce mechanisms to monitor and incentivize the conservation of these areas.
The CAR has two potential risks: i) low implementation rating, and/or ii) no validation in the next years.	Medium	Around 68% of the 398 million hectares subject to the CAR are currently registered. This amount is already useful to: i) analyse the potential debits and credits in Legal Reserves, and ii) identify priority areas for restoration.

Brazilian State governments insufficiently enforce and monitor their PRAs.		The CAR system is expected to facilitate automated demarcation of potentially tradable areas and will signal land-use changes, thus reducing the costs of monitoring and enforcement. Ensuring transparency of information regarding CAR and compliance status could allow greater engagement of civil society in monitoring and creating incentives for compliance.
CRA market has two potential risks: i) low level of trading as a consequence of slow progress with CAR, weak monitoring and enforcement on areas demarcated for protection, and excessive supply compared to demand; and ii) low effectiveness for biodiversity conservation.	Medium	Around 68% of the 398 million hectares subject to the CAR are currently registered. This amount is already useful to analyse the potential debits and credits in Legal Reserves. Advances in remote sensing technology have increasingly improved the feasibility of monitoring; CAR system works with Rapid Eye satellite images whose resolution is 5 meters. Demand can be higher if CRAs are emitted not only to compensate LR but also to compensate biodiversity conservation and ecosystem services provision. CRAs trading can be more effective for biodiversity conservation if higher priority properties receive additional compensation per unit area whose funding come from carbon and/or other environmental service markets. The interest of private companies in ensuring zero-deforestation agricultural supply chains could create private sector pressure for forest conservation and legislative compliance.

Forestry sector and other private stakeholders do not adopt/implement the project's incentives recommendations.	Low	Cost-benefit analyses will demonstrate the advantages of adopting suggested recommendations. The mechanism of incentives will enable the adoption of conservation practices by forestry sector.
Landowners do not improve conservation on their properties; Landowner and other stakeholders restrict access to their lands and field sites.	Medium	Lessons from the pilot program will provide evidence of the economic and environmental benefits of conservation. The mechanism of incentives will enable the adoption of conservation practices by landowners. Dissemination will enable capacity building related to environmental conservation and socioeconomic benefits.

5. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives.

This project will coordinate with and contribute to the following GEF financed projects and other initiatives. The "Improving Brazilian Capacity to Conserve and Use Biodiversity through Information Management and Use" project aims to ensure better policy design and implementation by facilitating and mainstreaming biodiversity information into decision making and policy development processes. More specifically, it aims to organize, qualify and integrate biodiversity information available in Brazil, strengthen institutional capacities as well as information management and use. One of the main outputs of the project is the development of the Brazilian Biodiversity Information System (SIBBr). The present proposed project will benefit from the data that will be made available by Biodiversity Portal of MMA and SIBBr as well as the tools developed for data management and analysis. It is expected that the data generated by this project will be made available to SIBBr for integration so that it can be made widely available to policy makers and other relevant stakeholders.

The present project will also coordinate with another relevant GEF financed project, the Biodiversity Indicators Partnership (BIP), which was led by the UNEP-World Conservation Monitoring Centre and that has already been completed. Amongst the several outputs of this project is the development of a set of protected areas related indicators, including on management effectiveness. The proposed project will benefit from the BIP experience and lessons learned on indicators development processes and will use the global indicators developed as a basis for the development of the PSAAs conservation and management effectiveness indicators.

As stated in previous sections, the present project aims to improve the biodiversity conservation value of remaining natural areas in private lands. It presents strong synergies with another GEF proposed project: "Supporting the compliance to the forest code and the implementation of the Brazilian restoration agenda: designing incentives to end environmental debt in Brazil", which focus on economic incentives and spatial planning for large-scale restoration in private lands. These two projects were jointly developed in order to ensure synergies and avoid overlaps. Both projects are synergetic because when a specific private land is restored (and the other project will provide the basis for it), it can benefit from the tools, incentives and regulations developed by the current project in order to have its conservation and provision of ecosystems services strengthened.

Finally, this project will coordinate and cooperate with the ongoing IUCN Taskforce on OECMs, composed by a wide group of organisations which are currently discussing definition of 'other effective area based conservation measures and the implication of using different definitions.

6. Consistency with National Priorities. Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes ☒ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

Although Brazil has not yet submitted a post-2010 Brazilian National Biodiversity Strategy and Action Plans (NBSAP), since COP-10 a different strategy to review and update the Brazilian NBSAP has been developed sharing responsibility with stakeholders of all sectors. Implementation of the new approach has begun with a broad consultation effort – known as Dialogues on Biodiversity – to achieve a collective construction of the revised NBSAP and new National Biodiversity Targets 2011-2020. As a result, in 2013 the National Biodiversity Commission – CONABIO in Brazil approved the National Biodiversity Targets for 2020 through its Resolution nº 6, of 03 September 2013. In parallel, other initiative, called Brazilian Panel on Biodiversity – PainelBio, a multi-stakeholder panel whose Executive Secretariat is IUCN-Brazil, has been carried out to assist the definition of indicators and implementation and monitoring of the National Biodiversity Targets through a participatory process. From September 2014 to June 2015 this panel conducted a capacity building on biodiversity indicators with the assistance of the Biodiversity Indicators Partnership and five workshops each addressing one of the five strategic objectives of the National Biodiversity Targets. As a result, in November 2015 PainelBio developed a conceptual framework for application of indicators to achieve the National Biodiversity Targets and a list of 28 indicators to monitor such targets. These indicators are now being submitted to CONABIO.

In this context, the proposed project will support Brazil's progress towards the achievement of the National Biodiversity Targets 1, 2, 3, 5, 7, 11, 12, 14, and 15. Once the SLM Guideline for PSAA focused on strengthening biodiversity conservation and ecosystem services provision (by using a measurable, reportable and verifiable methods) and the decision support system for SLM are developed (Component 1), implemented, and disseminated (Component 2) forestry companies, landowners, and government agents will be aware of the values of biodiversity in the areas targeted by the project (Target 1). As biodiversity and ecosystem services in PSAA are known, higher priority areas for biodiversity conservation can receive additional compensation if regulation at federal level in these areas are tailored to such end (Component 1) and an incentive package focused on negotiation of CRA for SLM, biodiversity conservation, and ecosystem services provision in PSAA (Component 3) is delivered. This is an example of how biodiversity values are integrated into national and local development and poverty reduction strategies and planning processes (Target 2) and how positive incentives for the conservation and sustainable use of biodiversity are developed, consistent and in harmony with the Convention, taking into account national socio economic conditions (Target 3). Along with these measures, a sectorial agreement with the forestry sector, containing SLM Guidelines for PSAA and targets, with upscaling potential to to 5M ha of PSAA (Component 2) will support Target 7 considering that areas under agriculture and forestry selected by this project are expected to be managed sustainably, ensuring conservation of biodiversity. Given that some of the PSAA targeted by this project come from properties that maintain native vegetation in excess of the minimum legal requirements and the referred positive incentives for conservation of biodiversity and ecosystem services also focus on these areas to prevent their loss the present project is also aligned with Target 5 as the rate of loss, degradation, and fragmentation of such native habitats is predicted to reduce. The project is also consistent with Target 11 since the latter recognizes PSAA – LR and APP defined by Brazilian Law 12.651/2012 – as other categories of areas officially protected. LRs and APPs correspond to approximately 193 Mha of native vegetation in Brazil so is likely that known threatened species are found there and, by protecting some of these areas as a result of the present project, their extinction could be prevented, which demonstrates alignment with Target 12. Finally, considering that the project will deliver an incentive package focused on negotiation of CRA for biodiversity conservation and ecosystem services provision PSAA (Component 3) and that CRAs can be linked to properties that have approved plans to restore sites that would permit them to exceed the minimum legal requirements in the future the project will also serve to biodiversity and ecosystem services restoration, which shows consistency with Targets 14 and 15.

7. Knowledge Management. Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

For a satisfactory knowledge management and dissemination and assessment of lessons learned and organizational asset files from previous projects with similar structure and theme will be done. Simultaneously, there will be a preliminary survey of the stakeholders experience in the project topic, which will be extended throughout the project life cycle. With this, through feedback mechanisms, all stakeholders will have the opportunity to reflect, exchange experiences and evaluate the progress along the project execution, increasing their synergy and activity coordination. Further, this commitment will enable the development of knowledge and continuous learning.

During the project execution, the components and their activities will be monitored and evaluated periodically for their successes and difficulties encountered. In addition to the results and products generated, best practices and lessons learned will be documented through performance communication materials (e.g. semi-annual reports) which will assess the effectiveness of each effort and monitor their risks. This approach will only become possible through well-defined processes of project communication and dissemination of results. For this, the collaboration and the involvement of the largest number of engaged stakeholders are of fundamental importance, always considering each of their particularities on the required information and expectations regarding the project.

Guidelines and information summaries will be presented to state governments who are decision makers through the implementation of federal laws and key agents of change. Events and workshops will be organized for the use of the online training tool for the forest companies, landowners and government agents. Further, training for the best management of PSAAs will be provided. The applicability of the guidelines and the online training tool will be tested and developed with the future users, according to their needs.

Media professionals will play a key role in the dissemination of project results to the general public, reinforcing the importance of biodiversity conservation in private properties. This initiative complements MMA's efforts to ensure the transparency of programs that are being developed and their results in biodiversity conservation.

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

A. RECORD OF ENDORSEMENT[12] 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 SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Marcelo Moisés de Paula	General Coordinator External Financing	Ministry of Planning, Budget and Management	MARCH 01, 2016

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies[13] and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator,	Signature	Date *(MM/dd/yyyy)*	Project Contact	Telephone	Email

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[12] For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

[13] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

Agency name				Person		
Brennan Van Dyke, Director, GEF Coordination Office, UNEP	*Brennan Van Dyke*	April 27, 2016	Robert Erath Task Manager	+507 305 3171	robert.erath@unep.org

C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)

For newly accredited GEF Project Agencies, please download and fill up the required **GEF Project Agency Certification of Ceiling Information Template** to be attached as an annex to the PIF.

Annex 1 – Mitigation potential estimate

This annex 1 presents the rationale for the GHG mitigation potential of the proposed project.

- The estimates include only the mitigation expected in the two pilot areas of the project (Pouso Alto/Cerrado KBA and Rio São João/Atlantic Rainforest KBA);

- Further mitigation is to be expected due to the sectoral agreement with forestry companies and due to the broader impact of the national management system, regulations and incentives mechanisms to be developed by the project.

Table 1 – Avoided Emissions in the Pouso Alto Cerrado Pilot Area

Current Native Vegetation outside Protected Areas (hectares)	738,858
Projected BAU Deforestation 2016-2050 (hectares)*	533,951
Projected BAU Deforestation (Forest vegetation) (hectares)	64,928
Projected BAU Deforestation (Savana vegetation) (hectares)	469,024
Carbon content Cerrado forests(tC/ha)	140.09
Carbon content Cerrado Savanas (tC/ha)	32.52
Projected BAU Emissions from Deforestation (Forests)(tCO2Eq)	33,350,882
Projected BAU Emissions from Deforestation (Savana)(tCO2Eq)	55,920,634
Avoided Emissions from Deforestation due to project (Pessimistic Scenario; 50% reduction)(tCO2Eq)	**44,635,758**
Avoided Emissions from Deforestation due to project (Optimistic Scenario)(75%)(tCO2Eq)	66,953,637
Avoided Emissions from Deforestation due to project (Intermediate)(62.5%)(tCO2Eq)	55,794,698

* Based on Soares-Filho et al. (2016) projections for Cerrado deforestation until 2050

Table 2 – GHG Sequestration in Rio São João/Atlantic Rainforest Pilot Area

Forest Code Deficit (hectares)	9500
Carbon Content Atlantic Rainforest (tC/ha)	127.2
Mitigation Potential due to Restoration (CO2Eq)	4,430,800
Mitigation attributed to project (75%)	**3,323,100**

Total: PIF Table F indicator #4 (tons of CO_{2e} mitigated)	**47,958,858 i.e. 48 million**