



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:	Conservation and Sustainable Use of Biological Diversity in the Northwestern Landscape (Boeny region) - Madagascar		
Country(ies):	Madagascar	GEF Project ID: ¹	9606
GEF Agency(ies):	CI (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	General Directorate for the Environment, Madagascar Biodiversity Fund (FAPBM), Directorate of the Protected Area System, and CI-Madagascar	Submission Date:	2017/03/07
GEF Focal Area(s):	Biodiversity	Project Duration (Months)	36
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	[if applicable]	Agency Fee (\$)	613,569

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
BD-1 Program 1 (select) (select)	GEFTF	5,767,431	4,534,735
BD-4 Program 9 (select) (select)	GEFTF	1,050,000	6,282,201
(select) (select) (select)	(select)		
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(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		6,817,431	10,816,936

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To strengthen the long-term conservation and sustainable use of biodiversity in the northwestern landscape of Madagascar						
Project Components	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
Component 1: Strengthening the management and the sustainable financing of five protected areas (PAs) to reduce the threats on natural resources and to contribute to a the resiliency	TA	Outcome 1.1.: Increased management effectiveness of 5 targeted PAs of the Northwestern Landscape <i>Target 1.1: XX% increase in METT scores for the 5 targeted PAs, covering about 536,824 ha (baseline to be determined during the PPG phase)</i>	Output 1.1.1.: Targeted protected areas acknowledged and mainstreamed into local and regional planning schemes Output 1.1.2.: Comprehensive and participatory management plans implemented in	GEFTF	5,492,792	4,534,735

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.

<p>of the North-western Landscape (Boeny region)</p>		<p>Outcome 1.2.: Improved financial sustainability of 5 targeted PAs</p> <p><i>Target 1.2: at least XX% reduction in financing gap to meet management objectives of the 5 targeted PAs (baseline to be determined during the PPG phase)</i></p>	<p>targeted PAs</p> <p>Output 1.1.3.: Participation of local communities in the management of targeted PAs improved</p> <p>Output 1.2.1.: The Madagascar Foundation for Protected Areas and Biodiversity (FAPBM) capitalized USD 4.5 million to generate revenues for the management of the targeted PAs</p> <p>Output 1.2.2.: The FAPBM contributed at least USD 180,000 annually and in perpetuity to strengthen the management of targeted PAs</p> <p>Output 1.2.3.: Additional donors identified to increase the FAPBM capitalization and reduced financial gap of targeted protected areas and funding proposals submitted</p>			
<p>Component 2: Supporting sustainable use of biodiversity by local communities around targeted PAs to strengthen PA protection efforts and improve community wellbeing</p>	<p>TA</p>	<p>Outcome 2.1.: Key local communities around targeted PAs adopted sustainable production practices</p> <p>Target 2.1:</p> <p><i>a) XX% incremental increase in household income of the local participating communities (baseline to be defined at PPG stage)</i></p> <p><i>b) XX% of natural habitats in intervention areas conserved (baseline to be defined at PPG stage)</i></p>	<p>Output 2.1.1: Communal Management Schemes (<i>Schéma d'Aménagement Communal</i>, SAC) for 4 priority municipalities of the Northwestern Landscape developed</p> <p>Output 2.1.2: Sustainable livelihood initiatives, prioritized in the SACs; implemented with 5 municipalities in the buffer zone of targeted PAs</p>	<p>GEFTF</p>	<p>1,000,000</p>	<p>6,282,201</p>
	<p>(select)</p>			<p>(select)</p>		
	<p>(select)</p>			<p>(select)</p>		
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	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
				Subtotal	6,492,792	10,816,936
				Project Management Cost (PMC) ⁴	GEFTF 324,639	
				Total Project Cost	6,817,431	10,816,936

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 (\$)
Others	FAPBM	Grants	4,534,735
Recipient Government	Government of Madagascar (Ankarafantsika National Park)	Grants	1,019,747
Recipient Government	Madagascar National Parks	Grants	261,065
Others	Association Identi'terre	Grants	322,000
Recipient Government	Mahavavy Kinkony Complex	In-kind	1,402,389
Donor Agency	MacArthur Foundation	Grants	540,000
Donor Agency	GIZ	In-kind	390,000
Donor Agency	KfW	In-kind	860,000
GEF Agency	Conservation International	In-kind	97,000
Recipient Government	Government of Madagascar (DGE & DSAP)	In-kind	850,000
Donor Agency	Japan International Cooperation Agency	Grants	540,000
Total Co-financing			10,816,936

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	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
CI	GEF TF	Madagascar	Biodiversity	(select as applicable)	6,817,431	613,569	7,431,000
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
Total GEF Resources					6,817,431	613,569	7,431,000

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.

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% 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.

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.

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

Project Preparation Grant amount requested: \$100,000					PPG Agency Fee: 9,000		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
CI	GEF TF	Madagascar	Biodiversity	(select as applicable)	100,000	9,000	109,000
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
Total PPG Amount					100,000	9,000	109,000

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

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	536,824 ha – (total ha of 5 PAs) 6,500 hectares in the buffer area (to be refined at PPG stage)
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	
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)	metric tons
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:
	Functional environmental information systems are established to support decision-making in at least 10 countries	Number of Countries:

PART II: PROJECT JUSTIFICATION

1. *Project Description.* Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed

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

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.

alternative scenario, GEF focal area⁸ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

1. Project description

1. Madagascar, the fourth largest island on Earth, is a tropical country having a total land surface of 587,295 km². Often described as a “nature sanctuary,” the island of Madagascar has been ranked amongst seventeen mega diverse states. Between 3.2 and 3.5 percent of the world’s higher plants are found only in Madagascar, while 2.6 percent of vertebrates excluding fishes (i.e. tetrapods) are also found only in this country (Mittermeier et al., 1997). Although well-endowed with natural resources, the combination of political instability and a growing population has led to an increase of poverty and a significant loss of biodiversity. More than 90 percent of the island’s original forest has already been lost or degraded; threats have intensified in the past 50 years, culminating in widespread deforestation.
2. Deforestation happens through the development of large scale projects such as road construction, irrigation networks, commercial agriculture, logging, and extractive industries. In addition, livelihood activities in rural areas continue to threaten the conservation of biodiversity. The rural poor’s livelihoods almost exclusively depend on agriculture and other natural resource-based activities. Historically, land conversion for subsistence agriculture has comprised the greatest threat to biodiversity.



Figure 1: Location of the Northwest Landscape, Boeny region

Project area

3. The Boeny region, with a total area of 30,000 km², is located in the Madagascar West Biome (see Figure 1).
4. The region is largely drained by a particularly dense river network, giving it significant water resources, including large lakes, such as the Kinkony Lake, the second largest lake in the country. This western region harbors dry forest habitats that rank amongst the most distinctive ecosystems in Madagascar, and is home to several lemur species of global significance. It also faces the same accelerating anthropogenic pressures that happen at the national level.
5. In 2013, natural habitats occupied almost 95 percent of the territory⁹. However, compared to the other 21 regions of Madagascar, the dry forests located in the Boeny region are among the most threatened by

⁸ 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.

⁹ National Office for the Environment (2015) : “*Tableau de bord environnemental de la Région de Boeny*”

deforestation and forest degradation¹⁰ (see Figure 2). According to the National Office for the Environment, with the recent decrease of natural ecosystem areas, notably the dry forests and the increased number of threatened species, the pressures on biodiversity in the Boeny region are “alarming.”¹¹

6. Under the National Development Program (*Programme National de Développement* or PND), the Boeny region has been identified as one of the key regions for achieving the Madagascar’s 2020 goals for economic growth. The aim of the PND is to increase the Boeny region’s contribution to the national GDP from 3.6 percent to 4.3 percent by investing in large-scale projects such as road and port construction, hydropower dams, and commercial agriculture (e.g. rice farming).¹² These investments represent new threats to biodiversity conservation.

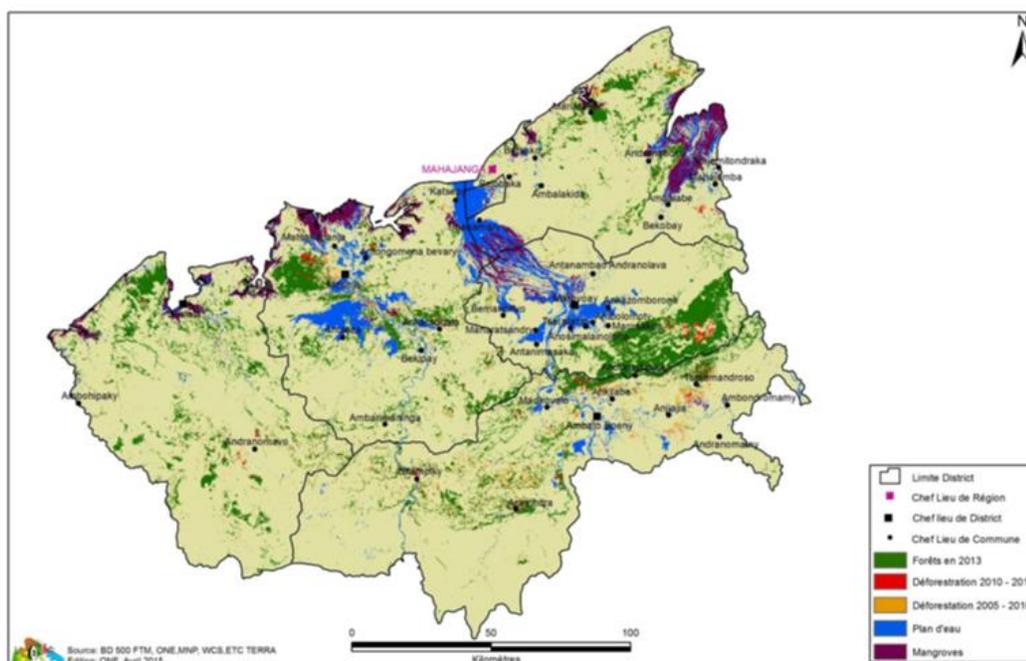


Figure 2: Deforestation in the project area from 2005 to 2013 (ONE, 2015)
(Green= forest in 2013; Red= Deforestation between 2010 and 2013, and Orange= Deforestation between 2005-2010)

Protected Areas in the North-western Landscape

7. The Northwestern Landscape (Boeny region) includes five protected areas (Ankarafantsika National Park, Biocultural Site of Antrema, Complex Mahavavy Kinkony, National Park of Baly Bay, and Bombetoka Belemboka (see Figure 3). These five PAs belong to different IUCN categories of PA: 2 PAs are of IUCN category II, 2 PAs are of IUCN category V and one PA is of IUCN category VI.

I. Ankarafantsika National Park

8. Ankarafantsika is a national park with a land area of 130,513 ha and classified as IUCN Category II. This PA contains a unique composition of flora on sandy soils where faunal species have a high level of endemism and are not represented in other protected areas. It is characterized by a dry, dense forest on sand; swamp forests; riparian forests and a permanent lake. At least 823 species of plants have been

¹⁰ National Office for the Environment, Madagascar National Parks, *Foibe Taontsaritanin’i Madagasikara*, Conservation International (2013): “*Évolution de la couverture des forêts naturelles à Madagascar 2005-2010*”

¹¹ National Office for the Environment (2015) : “*Résumé du Tableau de Bord Environnemental- Région BOENY*”

¹² *Kii d’information PNAT-SNAT*, UN Habitat, UNDP, 2010

recorded there – 82 percent are endemic herbaceous plants and 92 percent are woody plants. Ankarafantsika is a key PA for lemurs and bird species. Eight species of lemurs have been recorded in Ankarafantsika: a diurnal species, the Coquerel's sifaka (*Propithecus verreauxi coquereli*, EN); two diurnal/nocturnal species, the mongoose lemur (*Eulemur mongoz*, CR) and the brown lemur (*Eulemur fulvus fulvus*, NT); and five typically nocturnal lemur species including the famous mouse lemur (*Microcebus*), one of the smallest primates in the world. In addition, 129 bird species breed in the forests of Ankarafantsika, 75 of which are endemic. Ankarafantsika protects the Madagascar fish-eagle (*Haliaeetus vociferoides*), an endemic and the only diurnal raptor listed as critically endangered (CR) by IUCN in Africa since 2008. Finally, Ankarafantsika also protects local endemic reptiles, including chameleons, iguanas, snakes and freshwater turtles.

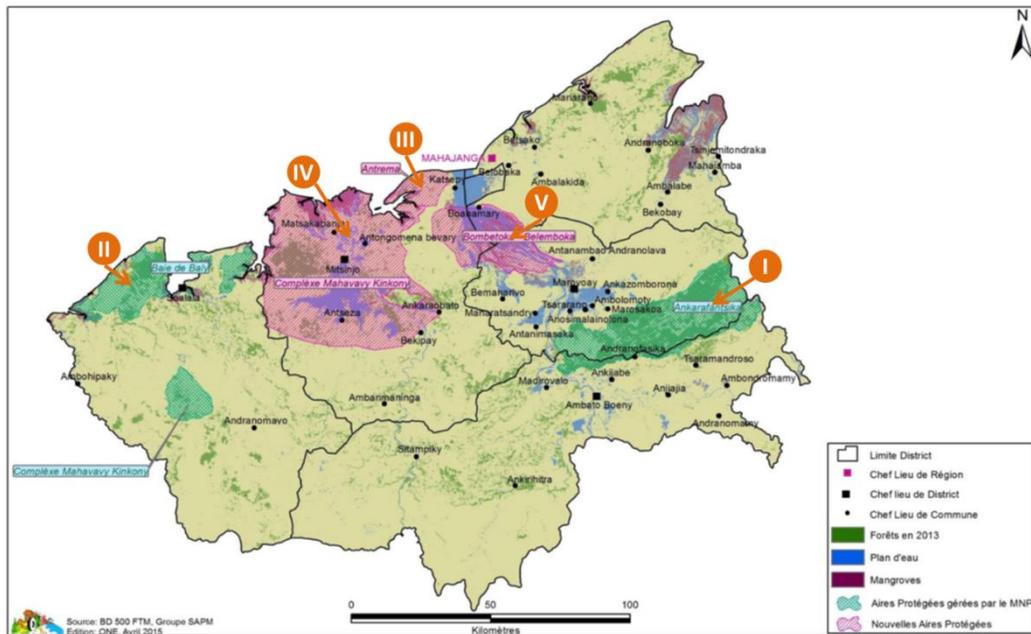


Figure 3: Location of the protected areas in the Northwestern Landscape:
 I. Ankarafantsika National Park; II. National Park of Baly Bay; III. Biocultural Site of Antrema;
 IV. Complex Mahavavy Kinkony; and V. Bombetoka Beloboka
 (Green-shaded areas represent existing protected areas and purple-shaded areas new protected areas created after 2000)

II. National Park of Baly Bay

9. The Baly Bay is located 150 km from Mahajanga in the heart of the municipalities of Soalala and Ambohipaky. Straddling five districts in the Boeny region, it is home to 15,272 residents. The national park is of specific importance in terms of biodiversity and houses a water reservoir for the entire region. Established in 1997, the PA covers 57,418 ha and is composed of semi-deciduous dry forests, the mineral “forests” of Tsingy, mangroves and savannahs, drought-resistant bushes and lakes. Baly Bay is best known for the rare and endangered Angonka giant turtle (*Astrochelys yniphora*, CR), found in the bamboo thickets (*Perrierbambos madagascariensis*), that is endemic to Soalala. The Sariaka Lake is a nesting site for large migratory water birds and the threatened freshwater, Madagascar big-headed turtle (*Erymnochelys madagascariensis*, CR). The forests and savannahs are the habitats of the Koumanga tree (*Erythrophleum couminga*), which is a top-class timber. Another feature is the presence of an endangered marine mammal, the Dugong or Sea Cow (*Dugong dugong*, VU). Currently, the forest is home to 13 species of mammals including six species of primates, four species of rodents, and two

species of carnivores, 37 species of reptiles, eight species of amphibians and 122 species of bird, including 55 species of water birds. At least 129 plant species have been recorded for the area.

III. Biocultural Site of Antrema

10. The new PA of Antrema is located on a peninsula in the Boeny region. It is 20,620 ha and is populated by 1000 residents. The Forest Station of Antrema is the first Malagasy biocultural site, created in 2000, and is currently classified as IUCN Category VI, Natural Resource Reserve. This site covers several typical ecosystems of the northwest coast of Madagascar. Mainly dominated by palm species (*Bismarckia spp.*), there are also mangroves and dry forests that are home to several lemur species. The biodiversity of this PA consists of almost 150 plant species (75 percent are endemic), 23 species of amphibian and reptile species, 77 bird species and seven lemur species, including the famous crowned sifaka (*Propithecus coronatus*, EN). The crowned sifaka is considered by the Sakalava of Antrema as representatives of their ancestors. They remain traditionally protected and under the supervision of Prince Tsimanendry. In addition, the wetlands are home to various marine, freshwater, and brackish-water fish species. In collaboration with the University of Antananarivo, this PA is currently administered by the National Museum of Natural History (MNHN).

IV. Complex Mahavavy Kinkony

11. The Complex Mahavavy Kinkony (CMK) is located in the province of Mahajanga. The site covers a total area of 302,000 ha, including different types of natural ecosystems such as the Mahavavy River, the Kinkony Lake and its satellites lakes, mangroves, coastal beaches, marshes, dry Tsiombikibo Forest, gallery forests along rivers and palm savannahs. This PA is classified as IUCN Category V. Since 2002, the NGO Asity Madagascar has been responsible for the conservation and management of the complex. The main objective of this protected area is to maintain the biodiversity and protect the wetlands of this complex. About 246 species of plants were inventoried in this complex, including the legume *Milletia aurea* (EN) and the palm tree *Borassus madagascariensis* (EN), which constitutes a suitable habitat for bats such as the Trouessart's triden bat (*Triaenops furculus*, LC), the eastern sucker-footed bat (*Myzopoda aurita*, LC), and the Madagascar flying fox (*Pteropus rufus*, VU). The site has 18 species of primates including Decken's sifaka (*Propithecus deckenii*, EN), the mongoose lemur (*Eulemur mongoz*, CR) and also several species of mouse lemurs (*Microcebus*). The Complex Mahavavy Kinkony is well-known for its richness in bird species: 131 species, which includes the Madagascar plover (*Charadrius thoracicus*, VU), the Olivier's rail (*Zapornia olivieri*, EN) and the Madagascar fish-eagle (*Haliaeetus vociferoides*, CR). Moreover, 30 species of fish such as *Paretroplus petiti* (DD) and the kotsovato cichlid (*Paretroplus kieneri*, VU) and 37 species of herpetofauna such as the Madagascar big-headed turtle (*Erymnochelys madagascariensis*, CR) have been recorded here.

V. Bombetoka Beloboka

12. With a total area of 71,943 ha and a proposed IUCN Category V classification, this PA was created in 2015. Bombetoka Bay forms the meeting point between freshwater from Betsiboka River and salt water from the Mozambique Channel in the Boeny region. The main habitats of this PA are the largest system of mangroves in Madagascar, dry forests and a wide estuary. In terms of plant biodiversity, the mangrove is dominated by gray mangrove (*Avicennia acanthaceae*, LC). One hundred and twelve tree species were identified in the most recent inventory of dry forests. Currently, the estuary is occupied by 20 mangrove islands, which serve as migration and nesting sites for water birds of international importance. These mangroves are home to rare species and highly threatened endemic birds such as the Madagascar teal (*Anas bernieri*, EN), the Madagascar fish-eagle (*Haliaeetus vociferoides*, CR), Madagascar plover (*Charadrius thoracicus*, VU), and the Madagascar sacred ibis (*Threskiornis bernieri*, EN). In addition, these islands are used as roosting sites by the Madagascar flying fox (*Pteropus rufus*, VU) and the intermediate channels are visited seasonally by dugongs or sea cows (*Dugong dugong*, VU)

and are also a spawning ground for shrimp, crabs and damba fish (*Menarambo spp.*). The strips of dry forests on both banks of the river are home to lemurs such as the crowned sifaka (*Propithecus coronatus*, EN), the mongoose lemur (*Eulemur mongoz*, CR), and the Audebert's brown lemur (*Eulemur rufus*, VU), as well as species of mouse lemurs (*Microcebus*) and sportive lemurs (*Lepilemur*).

Key Municipalities in the Northwestern Landscape

13. Preliminarily, five municipalities (also referred to as communes) have been identified to participate in this project (further assessments will be conducted during the PPG phase). They were selected based in their importance and influence in the management of the targeted PAs of the landscape. They are considered key in the conservation and sustainable use of resources not only of the PAs but their buffer areas. The five municipalities are:
 - a. The municipality of Ankazomborona located at the border of the Ankarafantsika National Park (16° 07' 00"; 46° 45' 00"). This municipality has about 25,000 inhabitants. In addition to local community charcoal production, a large-scale unplanned planting of *Jatropha* for biodiesel production has significantly expanded over the last 10 years;
 - b. The municipality of Soalala located at the border of Baly Bay National Park (16° 06' 00"; 45° 19' 00"). This municipality has approximately 15,000 inhabitants. Beside the current threats, companies have started exploring the iron exploitation potential of ore located in the municipality;
 - c. The municipality of Katsepy located in the biocultural site of Antrema (15° 46' 00"; 46° 14' 00"). This municipality has about 18,538 inhabitants. Nearly 99 percent of the active population depends on agriculture, livestock, fisheries and mining. In 2014, this municipality adopted its municipality planning scheme, providing a great decision tool for future investments and development projects. The municipality aims to promote ecotourism, promote sustainable fishing, and support the promotion and packaging of fish products;
 - d. The municipality of Antseza, located in the Complex Mahavavy Kinkony (16° 13' 00"; 45° 52' 00"). This municipality has about 9,000 inhabitants. The population depends on agriculture (culture of rice, corn, and cassava); and,
 - e. The municipality of Boanamary located in the Bombetoka PA (15° 50' 00"; 46° 19' 00"). This municipality has about 10, 000 inhabitants. Ecotourism constitutes an important source of revenue for the inhabitants of the municipality.

1.1. The global environmental problems (or climate change adaptation problems if this is an adaptation project), root causes and barriers that need to be addressed:

Global environmental problems and root causes

14. The project area is subject to important environmental pressures (threats). The main threats are:
 - a) Traditional slash and burn (tavy) agriculture, timber extraction, harvesting of other forest resources, and mining. Tavy, which is practiced by local communities on the periphery of the PAs, has been the major cause of habitat destruction and fragmentation;
 - b) Charcoal production is a common activity among local communities, with production for home use and sale;
 - c) Precious woods are extracted for sale and lower grade logs taken for local construction and furniture. These illegal and unsustainable activities occur in the areas of the buffer zone that are still highly important ecosystems;
 - d) Illegal collection of non-timber forest products (e.g. lemurs, tortoises) is also a major cause of biodiversity degradation; and

- e) Artisanal miners extract rubies, sapphires, and other stones in the PA buffer zones by digging large ditches and holes and using the river water to wash out sediment. Most miners operate without permits.
15. It is expected that these unsustainable activities will only increase with the growing pressure on land use with regards to the implementation of the National Development Plan in Boeny.

Barriers

16. Although efforts have been made to manage Madagascar's Protected Areas, and deforestation within Protection Areas is low compared to at the national level (0.2 percent/year versus 0.4 percent/year),¹³ serious barriers remain to the full operationalization and effective management of the five targeted PAs in the Boeny region – some barriers are site specific, others affect the entire area.

Barrier 1: Lack of management effectiveness of the Protected Areas

17. The PAs in the Northwestern Landscape face the following challenges that affect the effectiveness of their management:
- a. Lack of capacity and skills of the delegated authority for management of the new PAs (e.g. local communities, private sectors, NGOs, and associations) to properly undertake core PA activities (e.g. patrol, enforcement, monitoring, communication and fundraising campaigns);
 - b. Shortage of information on PA ecosystems and species (e.g. no systematic monitoring, no protocol for globally threaten species, only partial inventories completed) and low appreciation of their potential socio-economic value;
 - c. Inadequate access to financing;
 - d. Conflicts between conservation and economic sectors, most notably logging, mining, and agriculture, and no adequate coordination or conflict resolution mechanisms; and
 - e. Lack of coherency of regulations governing PAs – other sectoral regulations and land-uses that were authorized prior to the establishment of the PA (e.g. mining and oil licenses) are still valid and contradict what is needed for biodiversity conservation.

Barrier 2: Lack of coordination and mainstreaming between conservation and livelihoods activities, production systems

18. Despite several efforts to date, the Boeny region still lacks a regional management framework to guide livelihood activities and large-scale economic development that do not undermine the conservation efforts of the PAs system. The administration operates and takes decisions based on a very weak knowledge of the regional biodiversity richness and without clear norm and practice guidance for an integrated approach of conservation into livelihood/economic development. To illustrate, the Regional Development Plan (PRD) has poorly integrated environmental issues and does not consider the value of a Protected Area system¹⁴. The link between well-managed environmental and economic development potential for agriculture and forestry is not established and those sectors are managed separately.
19. Moreover, the link between the regional and local administrations is often tenuous and the community participation in natural resources management has been underutilized. There are on-going processes for

¹³ National Office for the Environment and the General Directorate of Forestry / Ministry of Environment and Forests, Conservation International - Madagascar, Foiben-Taosarintanin'i Madagasikara, Madagascar National Parks (2013): "*Evolution de la Couverture de forêts naturelles à Madagascar 2005-2010*"

¹⁴ *Kii d'information PNAT-SNAT UN Habitat*, UNDP, 2010

land-use planning at the municipal level, but they are stand-alone pieces that do not relate to each other, much less address an integrated management approach where PAs are the cornerstone. Finally, the challenges faced by the rural populations living in and around the PAs are enormous. Poverty is crushing, and the opportunity cost of PAs is high in terms of lost opportunities to extend agricultural land and access forest resources.

Barrier 3: Key stakeholders are unaware of the benefits of conserving biodiversity

20. Biodiversity conservation efforts often meet resistance with rural people, due to: a) the lack of adequate information available to the local communities about environmental problems and the benefits of conservation and the sustainable use of biodiversity; and, b) the lack of appropriate processes for addressing stakeholder concerns and needs.
21. Local and regional sectoral services and authorities contribute insufficiently to public awareness; they continue to use only singular or occasional events (e.g. specific celebrations) to address issues concerning the environment, natural resources and Protected Areas. To illustrate, since 2008, 585 companies have been established within the region,¹⁵ but their involvement in environmental issues is not obvious, apart from some interventions and financial contributions during one-time events. There is no continuity to their involvement in these issues, nor a guarantee of their future interest or commitment.

Barrier 4: Inadequate funding

22. At present, funding received by the five PAs targeted by the project is inadequate to meet the challenges that they are facing and it is unlikely to change in the near future. For instance, the Madagascar Biodiversity Fund (*Fondation pour les Aires Protégées et la Biodiversité de Madagascar*, FAPBM) supports four of the five targeted PAs (CMK, Antrema, Baly Bay and Ankarafantsika). This year (2016) the Foundation has awarded USD 232,000 to the 4 PAs. This funding, however, does not sufficiently cover the recurrent costs and according to rules applied by the Foundation, the budget will not significantly increase in the future. The other funding received by the PAs, are restricted “project” funding and by essence more directed toward short term, specific needs.
23. The financial situation for the areas in the buffer zone of the PA’s is even worse, with only very restricted funding used to support small, short-term projects developed by the local communities. In addition, the effort to develop long-term, sustainable planning schemes at the municipal level has failed due to a lack of funding to implement such schemes.

1.2. The baseline scenario and any associated baseline project

Baseline scenario

24. The baseline includes actions at the PA level as well as actions taking place in the five priority municipalities surrounding the PAs.

Baseline for Protected Areas

25. The Ministry of Environment Ecology and Forestry is the prime governmental agency responsible for PA management in Madagascar. With the support of international donors, the Madagascar Protected Areas System (*Système d'Aires Protégées de Madagascar*, SAPM) was established in 2005 aiming, among other goals, at ensuring connectivity between habitats in order to enhance ecosystem functionalities, to mainstream a conservation approach into development strategies, programs and planning, and to strengthen conservation ownership at all levels and within different sectors.

¹⁵ National Office for the Environment (2015): “*Tableau de Bord Environnemental de la Région de Boeny*”

26. All the targeted PAs have current Management Plans with their corresponding Annual Action Plans; the action plan defines expected outcomes and targets. Hence, the project will build on and strengthen these activities.
27. While in the same landscape, and facing common pressures, the five targeted PAs have developed their management plans in an isolated manner, and with the influence of the limited funding received from various donors. The result is a lack of harmonization and coordination in and between the five PAs with regard to the development of their action plans.
28. With regard to the financial baseline, PAs are mainly funded by the Government of Madagascar and international (public and private) donors. Funding allocations tend to be uneven amongst existing PAs. A long-term funding strategy for PAs has been developed and a Biodiversity Trust Fund created as a repository for new donor investments in the PA network. The FAPBM has managed this Trust Fund since 2005. Its goal is to cover 50 percent of the recurring costs of the existing PA system but it does not provide financial support for major PA expansion or creation. Currently, the Trust Fund generates an income stream, some of which is dedicated to four of the five targeted PAs. In addition to this support, each of the PAs has developed fundraising activities to complement the funding received by the FAPBM. Therefore, international organizations, bilateral and multilateral partners support project implementation in the 5 PAs.
29. For the duration of the project, the financial baseline dedicated to PAs in the Boeny region has been estimated at USD 2,487,112, as presented in the Table 1 below. The preliminary funding needs assessment to cover the PAs recurrent management cost has been estimated at USD 4,695,524 for the three coming years (see Table 2). The financial gap is estimated at about USD 2,208,412 over the project duration (this baseline will be further assessed and refined during the PPG phase).

**Table 1: Preliminary Assessment of
Total Funding Expected for the 5 Targeted PAs (in USD)
(2017-2019)**

Protected Area	2017	2018	2019	Total
Ankarafantsik National Park	296,469	328,762.80	394,515.36	1,019,747
National Park of Baly Bay	74,030	88,836	106,603.20	269,469
Biocultural Site of Antrema	239,343	136,000	146,700	522,043
Complex Mahavavy Kinkony	527,193	447,862	150,000	1,125,055
Bombetoka Belaboka	90,000	80,000	70,000	240,000
TOTAL	1,227,035	1,081,460	867,818	3,176,313

**Table 2: Preliminary Assessment of
Funding Requirements to Cover the Recurrent PA
Management Costs (in USD)
(2017-2019)**

Protected Area	2017	2018	2019	Total
Ankarafantsika National Park	296,469	328,762.80	394,515.36	1,019,747
National Park of Baly Bay	105,352	126,422.40	151,706.88	383,481
Biocultural Site of Antrema	284,343	178,000	196,700	659,043
Complex Mahavavy Kinkony	827,193	747,862	450,000	2,025,055
Bombetoka Belaboka	190,000	180,000	170,000	540,000
TOTAL	1,703,357	1,561,046	1,362,921	4,627,324

30. Without the GEF support, PA actions will continue to depend on limited and highly restrictive funding. The capacity of the 5 PAs to move forward on the core management activities will be inadequate. The threats to biodiversity will remain and the importance of five PAs as a “whole” and as an “undisrupted corridor” will continue to be ignored.

Baseline for the Five Targeted Municipalities

31. A large number of development partners have worked together in support of Madagascar’s National Environmental Action Plan (NEAP). Several important milestones have already been achieved, including the creation of key institutions (ANGAP¹⁶/MNP, ONE¹⁷, etc.) and the establishment of a community-based, natural resources management (NRM) legal framework. The capacity of institutions to integrate the value of Protected Areas as a key management tool and to ensure the sustainable use of biodiversity and natural resources in the PA surrounding areas and buffer zones is, unfortunately, still low.
32. In 2005, Madagascar launched its National Development Plan (*Programme National de Développement*, PND); a fifteen-year plan to foster sustainable growth (2005-2020). The Boeny region was designated as one of the “champion” production regions; with sector development focused on transport, agriculture, forestry, and hydropower. While clear targets were set-up to support economic growth, the support of biodiversity conservation was not included in this development plan.
33. In order to balance this development plan, planning schemes have been, or are, underdevelopment at regional and municipal levels.
34. Based on the guidance of the National Planning Strategy (*Schéma National D’Aménagement du Territoire*, SNAT) and the Land Act passed in 2012, eight of the 22 Malagasy regions have started the development of their Regional Planning Schemes (*Schéma Régional d’Aménagement du Territoire*, SRAT). The SRAT aims to offer clear guidance for a sustainable development of the region over the next 20 years. It is a collective commitment to implement more efficient land management through better coordination of priorities translated into sectoral programs; better cooperation between actors: ministries, regional and local authorities and the private sector; and better consistency and complementarity of actions on the ground. In this sense, the SRAT is increasingly becoming a major instrument to be used daily to mobilize and stimulate public and private actors at relevant levels.
35. The development of the SRAT in the Boeny region is piloted by the Regional Directorate of Planning in close partnership with Local Institutional and Technical Bodies (*Collectivités Techniques Décentralisées*, CTD, and *Services Techniques Déconcentrés*, STD); with the GIZ¹⁸ financial support (USD 65,000) and technical assistance. This SRAT is expected to be finalized by end of 2016. A launch phase is planned to begin in 2017 to help translate the SRAT into concrete actions. The funding for these activities will primarily come from the government and the GIZ. The final selection of the municipalities where activities will be piloted is on-going; however, municipalities around Ankarafantsika National Park have already been pre-selected.
36. Since 2011, a parallel and complementary process has been launched with the support of the PGM-E GIZ program to support the development of municipality’s land use planning (*Schéma d’Aménagement Communal*, SAC). The methodology and the consultation process developed follow the same principles as the national and regional planning schemes. The main purposes of the SAC are to: a) complement the SRAT/SNAT and, b) provide strategic supports to environmentally friendly practices and mitigate conflicts over land use, including at PA borders.

¹⁶ ANGAP: *Association Nationale pour la Gestion des Aires Protégées*, the former name of Madagascar National Parks (MNP)

¹⁷ ONE : *Office National Pour L’environnement*

¹⁸ *Deutsche Gesellschaft für Internationale Zusammenarbeit*

37. In that sense, for municipalities bordering PAs (which is the case for the five municipalities targeted by the project), the SAC will take in to account and encompass the social and environmental safeguards (*Plan de Sauvergarde social et Environnemental*, PSSE) developed and implemented by the PAs with the aim to restore or improve the conditions of people affected by the PA's establishment. The set of activities under the PSSE is collectively defined and translated in the PA action plan.
38. In May 2016, the GIZ awarded USD 11 million to a program promoting inclusive community development and decentralization (*Programme de Développement Communal Inclusif et de Décentralisation*, PDCID). These funds will be allocated to two regions, one of which is the Boeny region. For now, at least one municipality of the project (the Soalala Municipality) has been listed as a beneficiary. The project aims to first support infrastructure (e.g. roads) and strengthening municipalities' capacities, under the framework of the land planning scheme.
39. The Program for restoring watershed areas and for erosion control (*Programme de Lutte Antiérosive*, PLAE) funded by the KfW Development Bank is another program working in the PA buffer zones with local authorities and communities. The PLAE is implemented in 19 municipalities of the Boeny region. Among them, two municipalities are around the Ankarafantsika National park and one municipality is around Bombetoka Beleboka. This program supports village communities to maintain protective systems and revegetate their soils.

Associated baseline projects

40. The baseline contribution of programmes is currently estimated at USD 17,761,111. It will be, however, further refined during the PPG phase.

Project Name	Years (Start-End)	Budget (USD)	Donor(s)	Objectives/Brief description of how it is linked to this GEF project
<i>Schéma Régional d'Aménagement du Territoire, SRAT</i>	2015-2016	65,000 ¹⁹	GIZ	Support initial work and studies for the development of the Boeny Regional Management Scheme
<i>Programme d'Appui à la Gestion de l'Environnement, PAGE</i>	2015-2016	111,111 ²⁰	GIZ	<ul style="list-style-type: none"> - Support forest landscape restoration - Support transformation of vast degraded and deforested areas to resilient and multifunctional ecosystems - Contribute to local and national economies, storing large amounts of carbon, increase the food and clean water supply, and preserve biodiversity - Support management of two Protected Areas (CMK and Antrema)
<i>Programme de Lutte Antiérosive, PLAE</i>	1998-2017	2014-2017 (3 rd phase - 4 years) 5,550,000 ²¹	KfW (80%) Malagasy Government (20%)	<ul style="list-style-type: none"> - To implement restoration and protection measures in the watershed - Support reforestation and alternative solutions to the use

¹⁹ 200,000,000 ARIARY

²⁰ TBC at PPG phase

²¹ 5,000,000 euros

				of wood in the villages
Programme de Développement Communal Inclusif et de Décentralisation, PDCID)	2016-2020	11,550,000 (Boeny and Dana regions)	KFW (11M) Malagasy Government (0.55M)	- To improve local infrastructure (e.g. roads) - Improve municipality capacity to manage land planning and social healthcare

41. While it is difficult at the PIF stage to estimate precisely the funds that each targeted municipality will receive to support initiatives toward sustainable livelihoods in areas surrounding PAs, Table 3 (below) presents a conservative estimate of the support provided and the funding gap. These figures will be consolidated at the PPG phase.

Activities and Estimated Budget Toward Sustainable Livelihoods in the 5 Targeted Municipalities

Municipality	Donors	Activity	Total funds to receive 2017-2019
Soalala	KFW, FAPBM	Support to land planning schemes, Support to fisheries and ecotourism	52,563
Anteza	PGME/GIZ	Support to fisheries and agriculture, to sustainable livelihood development (e.g. beekeeping, hunting) and land planning schemes	56,212
Katsepy	FAPBM, GIZ, MNHN, IDENTITAIRE, AMI	Support to small initiatives on ecotourism, agriculture, beekeeping, local products certification, capacity building and land planning schemes	82,667
Ankazomborona	PGME/GIZ, KFW	Reforestation; support to agriculture (poultry farming, seeds for medicinal plants, beekeeping), and tourism activity development; support to land planning schemes	N/A
Boanamaray	MacArthur, GIZ/SAGE	Support to fisheries and ecotourism activities and SAC development	92,000
TOTAL			283,442

1.3. The proposed alternative scenario with the proposed project, with a brief description of the expected outcomes and components of the project

42. The Boeny region has been identified as containing particularly high levels of biodiversity of global importance, generating environmental goods and services of national importance (e.g. water supply), and being vulnerable to a number of threats of both anthropic and natural origin, as described in earlier sections.
43. In order to reverse this trend and foster the full recognition of the PA role in the sustainable development of the region, the project will support targeted interventions in and around the five target PAs.
44. The objective of this project is “to strengthen the long-term conservation and sustainable use of biodiversity in the Northwestern Landscape of Madagascar”. This objective will be achieved through the implementation of two project components that will deliver three main outcomes. (**Note:** outcomes and targets for this project will be confirmed and refined based on the information obtained through the PPG).

Project consistency with the GEF-6 focal areas strategy and the Aichi Targets

45. The proposed project is aligned with Programs 1 and 9 of the GEF-6 Biodiversity Focal Area and Aichi Targets 5, 7, 11, and 12, as detailed below:

Project Components	GEF 6 Focal Area Programs	Contribution to the Aichi Targets
<p>Component 1: Strengthening the management and the sustainable financing of five protected areas to reduce the threats on natural resources and to contribute to the resiliency of the Northwestern Landscape (Boeny region)</p>	<p>BD Objective 1 - Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure</p> <p><i>Outcome 1.1: Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management</i></p> <p><i>Outcome 1.2: Improved management effectiveness of protected areas</i></p> <p>Project Contribution:</p> <ul style="list-style-type: none"> • The project will support the increase of revenue generated by the FAPBM to help reduce the gap in total expenditures required for the management of the five targeted PAs located in the Boeny region. • In addition, the project will increase the management effectiveness of the five targeted PAs 	<p>Target 11 (Protected areas increased and improved) and Target 12 (Extinction prevented) by improving PA management and supporting an integrated landscape approach</p>
<p>Component 2: Supporting sustainable use of biodiversity by local communities around PAs to strengthen PA protection efforts and improve community wellbeing</p>	<p>BD Objective 4 - Program 9: Managing the Human-Biodiversity Interface</p> <p><i>Outcome 9.1: Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management</i></p> <p><i>Outcome 9.2: Sector policies and regulatory frameworks incorporate biodiversity considerations.</i></p> <p>Project Contribution:</p> <ul style="list-style-type: none"> • The project will support an increased area of production landscapes that integrate conservation and sustainable use of biodiversity into their management. This will be accomplished through supporting the development and application of land-use plans and practices that include environmentally sustainability criteria to guarantee ecosystem health, connectivity and resilience. • The project will also support the incorporation of biodiversity considerations in landscape management schemes. 	<p>Target 5 (Reduction of Habitat Loss) and Target 7 (Sustainable Management of Natural Resources) by improving sustainable production in habitats that are critical for biodiversity conservation and the provision of ecosystem services.</p>

46. To remove the barriers described in previous sections and improve the production of global environmental benefits, the financial resources of GEF will be invested in an incremental way to the aforementioned baseline initiatives.

COMPONENT 1: Strengthening the management and the sustainable financing of five protected areas (PAs) to reduce the threats on natural resources and to contribute to the resiliency of the Northwestern Landscape (Boeny region)

47. This component will increase the management effectiveness of the five targeted protected areas and help reduce the gap in their long-term financial sustainability and the sustainable management of natural resources found there. The main outcomes under this component will be a substantial improvement in PA management through the following actions.

Outcome 1.1.: Increased management effectiveness of five targeted PAs of the Northwestern Landscape

48. The project will support the implementation of PA activities and help to mainstream their objectives into larger planning schemes (at the local and regional levels) (Output 1.1.1). This will be done through the strong cooperation between the PA managers and local authorities. For instance, the project will support the implementation of the new agreement signed between the Ankafrantsika National Park and the Public Organization for Inter-Municipalities Cooperation (*Organisme Public de Coopération Intercommunale*, OPCI) in order pursue SAC development and its integration with the PSSE.
49. The project will also foster a dialogue between different authorities to improve the consistency among regulations governing PAs with other sectoral regulations. The project will support greater participation of PA managers in SRAT discussions. To date, only one PA manager has been participating in this process.
50. Given that all five targeted PAs have updated management plans and annual action plans, this project will support the implementation of the activities defined in these plans.
51. Thus, the project will support on the ground management actions that will focus on strengthening the priorities defined by the five PA Annual Action Plans (Output 1.1.2). While this will be further explored during the PPG phase, it is expected that the project will support actions to: a) strengthen partnerships involved in the patrolling system and biodiversity monitoring (e.g. mix brigades involving local communities, fireman and technicians from the forestry department); b) expanding habitat restoration; c) supporting local community representatives in their environmental education activities directed toward youth and policy makers; d) developing labelling and certification for PA derived products; and, f) building local communities' and rangers' capacity as tour guides. To the extent possible and relevant, the activities will foster collaboration and coordination between the five PAs.
52. The project will support activities recommended by the Environmental and Social Safeguard Plan (PSSE) of each target PA (Output 1.1.3). These plans are created jointly by PA managers and the local communities. They aim to strengthen the involvement of the communities in the management of the PAs, both in the decision making and the management of PA's buffer zones, to better connect communities' activities with the Pas' objectives.
53. The implementation of the plans is currently being piloted and funded by the PA, but the local community involvement has been limited to date. Based on the 2016 action plans, it is foreseen that the project will continue fostering local communities' involvement in the PA governance body by strengthening the capacities of the representatives (e.g. the training of the Committee for the Management of the Protected Area [*Comité d'Orientation et Soutien à l'Aire Protégée*, COSAP] new members of the Ankafrantsika National Park). It is also foreseen to help on-going activities supporting new businesses including ecotourism, vegetable gardening and livestock production, like in Bombetoka Beloboka.
54. Finally, the project will be instrumental in ensuring good coordination between the implementation of

these plans and other programs pursuing similar objectives at the municipal level.

55. A total budget of USD 992,792 will be dedicated to this outcome. This funding will cover 44 percent of the budget gap faced by the targeted PAs over the project period.

Outcome 1.2.: Improved financial sustainability of 5 targeted PAs

56. To date, none of the five targeted PAs is fully funded and a major part of the funding that they do receive is short-term, project based. To improve this situation, the FAPBM started allocating funding to four of the five PAs (in 2016 it will provide a total of USD 232,000).

57. To help decrease the funding gap of the targeted PAs, this project will invest USD 4.5M to further capitalize the FAPBM endowment (Output 1.2.1).

58. The revenues from the USD 4.5M capitalization of the FAPBM, estimated at approximately USD 180,000 per year, will start to flow to the PAs on the second year (Output 1.2.2). This funding will be in addition to the existing allocation from the FAPBM. Thereafter, the level of funding available at perpetuity for the PAs recurrent costs will increase from USD 232,000 to USD 412,000 per year. Estimations will be further refined during the PPG phase.

59. Therefore, Component 1 of this project will help cover 61.3 percent of the budget gap of the targeted PAs for the period 2017-2019 (see Table 3).

Table 3: Targeted PAs Funding Requirements and Contribution from this Project (2017-2019)

Funding	Estimated (USD)	Source
a) Expected Revenues	2,487,112	Table 1
b) Estimated Funding Needs	4,695,524	Table 2
c) Current Financial Gap	2,208,412	<i>(a – b)</i>
d) Project Outcome 1.1	992,792	Grant
e) Project Outcome 1.2	360,000	FAPBM
f) Total this Project	1,352,792	<i>(d + e)</i>
g) Remaining Financial Gap	855,620	<i>(c – f)</i>

60. In order to continue improving the long-term financial sustainability of the targeted PAs and further help closing their financial gap (Table 3, g), the project will help leverage additional funding by identifying new donors and supporting the submission of funding proposals to increase the FAPBM’s capitalization (Output 1.2.3).

COMPONENT 2: Supporting sustainable use of biodiversity by local communities around targeted PAs to strengthen PA protection efforts and improve community wellbeing

61. The project will complement on-going local initiatives for sustainable production and better conservation of the PAs’ surrounding areas, as described in the baseline section.

62. First, the project will complement on-going efforts through strengthening decision-making capacities in five targeted municipalities, Katsepy, Antseza, Ankazomborona, Boanamary and Soalala. Since 2011,

the PGM-E GIZ program has been supporting the development of municipality land use planning (*Schéma d'Aménagement Communal*, SAC), providing strategic support to environmentally-friendly production practices and helping manage natural resource use conflicts between communities and the PAs.

63. The SAC is a reference document that sets guidelines for fifteen years of regulatory and land use. It forms the basis for the medium-term objectives and activities identified in the Municipal Development Plan (CDP) and the implementation of development projects in a municipality. The development of the SAC is done in a transparent and participatory process involving all stakeholders of the municipality (municipal council, traditional authorities, civil society, and economic operators, among others). Based on SAC guidelines, five-year operational plans are developed. These plans, called "green plans," are the basis for supporting the transfer of management, extension of the Individual Village Reforestation (IVR), as well as support for various green and sustainable projects.
64. While the municipality of Katsepy finalized its SAC in 2014, the four other municipalities are still in the process of developing them. The project will therefore complement the PGM-E phase II and support the finalization of the SAC and "green plans" in the other four municipalities (Output 2.1.1).
65. Second, under the framework of the SACs and the five PA's Environmental and Social Safeguard Plans (PSSE), the project will scale-up and support sustainable production practices in PA buffer areas. All these activities will complement and closely coordinate with the current on-going initiatives in the targeted municipalities (e.g. GIZ-PAGE, PAPRIZ).
66. The project will aim at improving livelihoods while promoting subsistence production approaches that help conserve or sustainably use key biodiversity. The project will target households where occupants highly rely on the natural resources for their livelihoods. It is expected that the project will replicate or scale-up initiatives that have been supported by other on-going programs and have been successful. Therefore, it is foreseen that the project will support, for example, reforestation projects, land management transfers to local communities, etc. (Output 2.1.2). Specific activities to be supported by the project will be identified during the PPG phase.
67. A total budget of USD 1M will be dedicated to these actions; hence contributing to the financial gap of current programs and allowing replication or scaling-up of successful initiatives.

1.4. Incremental/additional cost reasoning and expected contributions to the baseline and co-financing (refer to the GEF guidelines):

Incremental cost

68. The GEF resources will be invested in improving the management effectiveness of five key protected areas that harbor globally threatened species. This will be achieved through the provision of incremental funding for the implementation of the PA current Annual Action Plans and support the mainstreaming of their importance into regional and local planning schemes. The GEF will provide supplemental funding to the current investments from the Government of Madagascar, local CSOs, the Madagascar Diversity Fund (FAPBM) and the international aid community (KfW, FFEM, GIZ, etc.) which are not enough to realize the full potential of these PAs as reservoirs of globally threatened species. Without the GEF investment, the PAs will continue to rely on project-based, short term funding.
69. As described in the previous section, the direct investment in component 1 and in the FAPBM will help to decrease the funding needs gap by 61.3 percent during the life of the project, and generate an estimated additional USD 180,000 in perpetuity for the targeted PAs. This amount will be added to the current USD 232,000 contribution from the FAPBM. In addition, the GEF investment will allow the FAPBM to extend its coverage from four to five PAs receiving funding in perpetuity.

70. Recognizing that the available funding from the GEF will not be sufficient to close the financial needs gap of the targeted PAs, the project will also work towards identifying additional sources for the further capitalization of the FAPBM, cultivate donors, and submit funding proposals. It is important to highlight here that the objective of the FAPBM is to cover 50 percent of the management recurrent costs of the PA system, and not the totality of it. The remainder will always be the responsibility of the Government of Madagascar in partnership with the international community.
71. In the buffer areas, several institutions are investing in developing frameworks and schemes to adopt a landscape approach, however, funding has not been adequate to ensure that these frameworks and schemes address environmental concerns or incorporate the value of PAs. Without GEF support, most investments in the landscape will continue to ignore how to respect and support protected areas and the integration of natural resources conservation.
72. Outside PAs, the GEF investment will help promote and strengthen best practices for the Boeny region (especially in areas surrounding targeted PAs), while ensuring that stakeholders understand the multiple benefits that these best practices will bring to local and regional economies.
73. It is estimated that there are about 77,500 inhabitants²² living in the areas surrounding the targeted protected areas. Most of these households in the area engage in subsistence activities, which are characterized by extremely low levels of productivity and sustainability, and high environmental impact. So far, community participation in protected areas and natural resources management has not been fully developed. With GEF support, the project will put in place measures to ensure the sustainable utilization of natural resources in buffer areas have a positive impact on the targeted PAs and provide them with more connectivity at the landscape level.
74. Finally, the GEF investment will help turn an a situation described as “alarming” by the National Office for the Environment (see table below) into a promising situation for both, the environment and people.

Boeny Regional Environmental Situation Dashboard

	2005	2013	2015	SITUATION
Dense dry forests	361,881 ha	316,819 ha	213,094 ha	alarming
Mangrove	88,832 ha	88,832 ha	dense mangrove: 32,466 ha degraded mangrove: 31,783 ha	alarming
Wetlands	159,802 ha	159,802 ha	swamp: 32,060 ha water body: 66,923 ha	alarming
Threatened species	In 2014 (IUCN categorization): <ul style="list-style-type: none"> • Fauna: 33 species terrestrial vertebrates; marine fauna: 6 species • Flora: 19 species 			alarming
Endemic species	In 2014: <ul style="list-style-type: none"> • Fauna: 147 species of vertebrates, including 8 regional endemics (5.5% of regional endemics) • Flora: 587 species, including 103 regional endemics (17.5% of regional endemics) 			efforts to continue and deserve to be supported

Source: National Office for the Environment

²² *Fondation pour les Aires Protégées et la Biodiversité de Madagascar* (www.fapbm.org)

Co-financing

75. Co-financing for this project will come from a number of different projects and ensure that investment under GEF-6 will support incremental costs.

Project Name	Years (Start-End)	Budget (USD)	Donor(s)	Objectives/Brief description of how it is linked to this GEF project
Protected Area Management	2017- 2019	4,534,735	FAPBM	Improve PA management
Ankarafantsika National Park	2017-2019	1,019,747	Government, KfW, DWCT	Improve PA management
National Park of Baly Bay	2017-2019	261,065	Madagascar National Parks	Improve PA management
Mahavavy Kinkony Complex	2017-2019	1,402,389	FAPBM, Arcadia, Helmsley ²³ , NABU, GIZ/PAGE (Phase I),	Improve PA management
Biocultural site of Antrema	2017-2019	322,000	MNHN , <i>Association Identi'terre</i>	Improve PA management
Bombetoka Beloboka	2017-2019	540,000	MacArthur Foundation ²⁴	Improve PA management
PAGE-GIZ (Phase II)	2017-2019	390,000 (To be confirmed during PPG phase)	GIZ	Management and sustainable development of natural resources and conservation of biodiversity; capacity building & political and strategic support; sustainable "wood energy;"artisanal mining; cross-cutting themes: good governance, gender, climate change, cooperation with the private sector.
<i>Programe de Lutte anti-erosive</i>	2017-2018	860,000	KfW	Reforestation; mangrove regeneration; land tenue ; training and support to grassroots communities
PAPRIZ (phase II)	2017-2020	540,000	JICA ²⁵	More accessible and more effective rice cultivation while providing integrated management of rice fields through various other project activities.

²³ The Leona M. and Harry B. Helmsley Charitable Trust

²⁴ The John D. and Catherine T. MacArthur Foundation

²⁵ Japanese International Cooperation Agency

CI- Madagascar	2017-2019	97,000		Improvement of PA management and stakeholders engagement (Co-executing Agency)
Direction Générale de l'Environnement (DGE)	2017-2019	450,000		Protect, enhance and take care of the environment for sustainable development. It is responsible for the design and coordination of technical activities in accordance with the state policy on environment as well as monitoring and control of their execution. (Executing Agency)
Direction du Système des Aires Protégées, (DSAP)	2017-2020	400,000		Elaboration and implementation of the conservation strategy of biodiversity and the creation of protected areas.
TOTAL		10,816,936		

1.5. Global environmental benefits and/or adaptation benefits

76. This project is expected to deliver the following global environmental benefits:

77. Improve the management effectiveness of five PAs, covering approximately 588,812 hectares (the equivalent of almost 20 percent of the region).

78. It is estimated that five targeted PAs harbor at least 35 globally threatened species, 30 of which are considered endangered. They include emblematic lemur species, as well as bird, reptiles and plant species that are endemic to Madagascar. Below we present a preliminary list of threatened species that will benefit from increased conservation of their habitats. A full list of globally threatened species to be positively impacted by the project will be compiled as part of the PPG phase.

Preliminary List of Globally Threatened Species Recorded in the Project Targeted Protected Areas

Common Name	Scientific Name	IUCN Status
Mammals		
1. Coquerel's sifaka	<i>Propithecus verreauxi coquereli</i> ,	EN
2. Mongoose lemur	<i>Eulemur mongoz</i>	CR
3. Brown lemur	<i>Eulemur fulvus fulvus</i>	NT
4. Decken's sifaka	<i>Propithecus deckenii</i>	EN
5. Audebert's brown lemur	<i>Eulemur rufus</i>	VU
6. Crowned sifaka	<i>Propithecus coronatus</i>	EN
7. Dugong	<i>Dugong dugong</i>	VU
8. Madagascar flying fox	<i>Pteropus rufus</i>	VU
Birds		
9. Madagascar fish-eagle	<i>Haliaeetus vociferoides</i>	CR
10. Madagascar plover	<i>Charadrius thoracius</i>	VU
11. Olivier's rail	<i>Zapornia olivieri</i>	EN

12. Madagascar teal	<i>Anas bernieri</i>	EN
13. Madagascar sacred ibis	<i>Threskiornis bernieri</i>	EN
Reptiles		
14. Angonka giant turtle	<i>Astrochelys yniphora</i>	CR
15. Madagascar big-headed turtle	<i>Erymnochelys madagascariensis</i>	CR
Fish		
16. Kotsovato cichlid fish	<i>Paretroplus kieneri</i>	VU
Plants		
17. Legume species	<i>Milletia aurea</i>	EN
18. Palm tree	<i>Borassus madagascariensis</i>	EN

IUCN Status: CR= Critically Endangered; EN= Endangered; VU= Vulnerable, and NR= Near Threatened

79. Unsustainable land-use activities in PA buffer zones will be identified and prioritized, and alternative sustainable options will be promoted through the project. Therefore, at least 6,500 hectares of high biodiversity valued land outside the PAs will be brought under sustainable management and will function as connectivity corridors.

1.6. Innovation, sustainability, and potential for scaling up

Innovation:

80. The Boeny Region could potentially be a leader in promoting reduced degradation and sustainable productive sectors in an integrated approach that enhances the PA's role, increases the resilience of local communities and raises sustainable finance for biodiversity conservation in and outside of PAs.
81. The project is based on a landscape approach with the Protected Areas as the cornerstone of the planning scheme, rather than the business as usual scenario of spatial planning and governance being based on a sector specific or limited site-based approach.
82. Also, this project will strengthen the collaboration between older PAs and newly created PAs, which have development very different approaches to community involvement and species monitoring. The project will foster effective management and visibility throughout the region and country. This is innovative for Madagascar.

Sustainability:

83. The project will help to better recognize the role played by Protected Areas in landscape governance at the local level and will act toward greater coherency between PA management, livelihood activities and enterprise investments in the area.
84. The project will capitalize the endowment fund of the FAPBM with USD 4.M. The revenues of the trust fund will be available after a year of placement and every year thereafter in perpetuity. The interest from the investment will be dedicated to support the five PAs core management, as well as to support biodiversity friendly projects led by local communities living around the targeted PAs. In addition, the project will seek to further capitalize the FAPBM to continue closing the financial gap for the targeted PAs.
85. The participation of local communities will be strengthened through the implementation of the SAC that will capitalize, value, and incorporate local knowledge, in order to ensure better ownership of the PA management and the sustainability of the activities supported around the PAs. The socio-economic

benefits that the project will generate through newly development sustainable livelihood activities will facilitate the hand-over in 2019 and will encourage other communities to develop such activities.

Potential for scaling up:

86. The project will influence Boeny’s local, public sector actors and resource users (local communities, small and medium businesses) to integrate the protection of the environment into their activities. The project will support biodiversity-friendly initiatives and will undertake the necessary work to demonstrate the added-value of such approaches.

87. The governance challenges and the lack of consideration for environmental protection faced by the Boeny region are also found elsewhere in the country. The approach is therefore highly replicable and could also be applied in other regions.

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.

88. The table below summarizes key stakeholder roles in the project. Nonetheless, a full stakeholder analysis will be conducted during the PPG phase.

Civil Society Organizations		
Stakeholder	Role	Engagement in the Project
ASITY	CMK sponsor	<ul style="list-style-type: none"> • Implementation of Protected Areas Management Plan including Inventories, ecological monitoring, development of METT, • Strengthen the organizational and management skills of local communities • Support local entrepreneurship efforts (in MNP in particular, will help to build ecotourism expertise and products)
DELIC	Bombetoka sponsor	
MNP	Ankaranfantsika and Baly Bay sponsor	
MNHN (Muséum National d’Histoire Naturelle)	Antrema sponsor + scientific activities	

Local Communities		
Stakeholder	Role	Engagement in the Project
Local community-based structures living in PA surrounding areas: Antrema Association, Marambitsy Miarony Zavaboahary- MMZ (CMK)	Co-managers	<ul style="list-style-type: none"> • Field information • Patrolling • Communitarian ecological monitoring • Co-designer of local land use planning • Participants to the development and expansion of Landscape approach
Local or/and regional NGO	Partners	<ul style="list-style-type: none"> • Capacity building of local communities • Communication campaign on biodiversity values, lobbying • Environmental watch

Government Institutions

Stakeholder	Role	Engagement in the Project
General Directorate of the Environment (Central level)	Executing Agency	Technical steering committee Technical supervision Regulatory functions Ensure links with other departments if needed
Directorate of Terrestrial Protected Areas (Central Level)	Executing Agency	Ensure the consideration of the national referential (Protected Areas Code, National strategy for biodiversity) and the mainstreaming of environment issues and biodiversity management
General Directorate of Management of Territory (Central level)	Technical Partner	Ensure cross-cutting approach Ensure the mainstreaming of environment issues and biodiversity management
Decentralized Services in Boeny Region (Environment and Forest)	Technical Partner	Execute activities Ensure reporting Lead patrol and monitoring
Decentralized Services (Agriculture, Husbandry, Fisheries, Tourism, Trade, etc.)	Technical Partner	Mainstream environment and biodiversity management in their plan
Boeny Region	Territory Administrator	Steering Committee at regional level Lead of the elaboration and implementation of the Development Regional Plan that mainstreams environmental issues and biodiversity management
Directorate of regional territory	Technical Partner	Lead of the elaboration and implementation of the Regional Management Scheme that integrates environmental issues and biodiversity management
CRE (Regional Environmental Unit)	Platform of co-ordination	Public awareness about landscape approach Environmental monitoring Advisory body
CRT (Regional Thematic Committee)	Platform of co-ordination on specific themes	Public awareness about landscape approach Advisory thematic body Conflict management resolution

Other stakeholders		
Stakeholder	Role	Engagement in the Project
Research groups and higher education institutions	Research	To fill knowledge gaps with regard to biodiversity.
Private sector	Partner	Build partnership with PAs' Managers in order to create win-win opportunities (economic and environmental)

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.

89. According to the National Institute of Statistics (2014), the Boeny region has a population of 821,356 inhabitants of whom the majority are female (55 percent). Despite their number and status as key stakeholders, women rarely influence planning and decision making in land management. There are a large number of women's associations that pursue various activities such as the promotion of raw silk, cooking, embroidery, etc., but the impacts on women empowerment are still limited.
90. Recognizing the fundamental roles played by women, the project will make great efforts to advance gender equity and women's empowerment every time it is relevant. First, the project will encourage women to further utilize their creative abilities for generating goods and services and therefore strengthen their sustainable production activities. Second, recognizing the role played by women in the development of their communities, the project will encourage greater participation of women in decision making processes regarding the planning and implementation of activities in the targeted five PAs. This will be done by, for example, ensuring meetings are planned at times when women are available and providing child care during meetings (or being explicit in allowing children at the meetings).
91. To address the different ways that women and men use coastal resources in the Boeny region the project will develop a Gender Mainstreaming Plan (GMP) during the PPG phase. The GMP will include an assessment of gender roles, responsibilities, uses and needs relating to coastal natural resources and both short- and long-term costs and benefits of the project on men and women. The assessment will also include potential roles, benefits, impacts and risks for women and men of different ages, ethnicities and social structure and status, specific actions and activities to ensure that gender-related adverse impacts of the project are avoided and will identify specific indicators for monitoring and evaluating progress towards gender equity within the project.
92. In addition to the GMP, the project will also ensure that gender considerations outlined in the GMP are fully embedded throughout the Project Document as necessary/appropriate. This project will seek to address power differences and recognize the differing levels of control and dependence on coastal ecosystems.

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).

93. The table below summarizes the risks and their levels, as well as the mitigation strategies that the project will put in place to manage risks. During the PPG phase, project risks will be reassessed and updated as needed.

Risk	Level (low-medium-high)	Mitigation Strategy
Uncertainty due to regional government shift in priorities and/or policy change	H	The project will strengthen political commitment by developing a number of key documents showcasing sustainable production systems/practices and demonstrating the value-add of integrative approaches.
Exacerbated illegal logging and poaching following social and/or political crises	H	The project will strengthen the involvement of civil society members and partnerships with the private sector, so that it is less dependent on political influence.
Weak institutional capacities for planning, management and governance	M	The project will work with and strengthen the capacity of diverse institutions (at both the local and regional levels). The project will also invest in addressing key mechanism gaps.
Continued threats to protected areas through uncontrolled exploitation	L	The project aims to provide incentives for the protection of PA and surrounding areas by supporting key alternative income and livelihood opportunities.
Limited acceptance of sustainable use models by local communities	L	Starting with the design phase, the project will work in a participatory manner with local communities to discuss and define the strategies to be implemented in supporting biodiversity-friendly projects, as well as establishing PA co-management agreements, in order to maximize the likelihood of ownership and uptake.
Impacts of global climate change	L	The project will work with PA staff, regional institutions and grassroots organizations to share experiences related to climate change adaptation and resiliency programs.

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

94. This project will coordinate with several GEF projects in the Boeny region:

Initiative	Objectives/Brief description of how it is linked to the project	Coordination
Sustainable Agriculture Landscape Project in the Northwestern low altitude plains agro-ecoregion: Marovoay landscape in Boeny region (PADAP) (WB/GEF)-	To improve agricultural productivity and management of associated natural resources in selected landscapes	Information will be shared and collaboration will be prioritized
Madagascar's Network of Managed Resource Protected Areas (MRPA) (UNDP/GEF) - 2013- 2017	Expand the PA system of Madagascar by developing a network of managed resource protected areas in underrepresented ecological landscapes, co-managed by local government and communities and integrated into the regional development frameworks	Information shared on experiences
A Landscape Approach to	The project is designed to	Information will be shared

Conserving and Managing Threatened Biodiversity in Madagascar with a Focus on the Atsimo-Andrefana Spiny and Dry Forest Landscape (UNDP/GEF) – 2013-2020	strengthen conservation management capabilities across the multi-use Atsimo-Andrefana Spiny and Dry Forest Landscape, straddling an area of 2.4 million hectares.	and collaboration will be prioritized
Strengthening the Network of ‘New Protected Areas’ in Madagascar (UNEP/GEF) 2013-2017	The project is designed to strengthen the system of New Protected Areas (NPAs), to support good site management, the sustainable exploitation of site resources, improved livelihoods for people around sites, and the ability of economic actors to obtain sustainable benefits from sites.	Will build on project’s experiences

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.

- 95. This project is consistent with, and will contribute to, the achievement of national development strategies and plans that relate to biodiversity protection and sustainable development. The project is supportive of the 1990 National Environment Charter (PNAE), the Environment Programme III, the new Malagasy Strategy of Biodiversity (NBSAP) and the President Rajaonarimampianin’s promise in Sydney to harmoniously integrate PAs into the overall environmental landscape.
- 96. The project will contribute to Madagascar’s achievement of Aichi Targets 5, 7, 11 and 12.
- 97. The project will also focus on ensuring that biodiversity considerations are more actively taken into account in sectoral frameworks and therefore are aligned with the third and fifth pillars of the National Development Plan (2015-2019): "Inclusive growth and territorial anchoring of development" and "Treasuring natural capital and strengthening resilience to risks and catastrophes."

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.

- 98. Throughout the project’s lifetime, materials and workshops will be developed to share the results of the project to stakeholders and further their engagement in the project. In addition, the project will participate, as is relevant and appropriate, in scientific, policy-based, and/or any other national seminars or networks that may be of benefit to project implementation. Specifically, the project will ensure coordination in terms of avoiding overlap, sharing best practices, and generating knowledge products of best practices in the area of biodiversity conservation and landscape management approaches with the similar on-going projects in the Boeny region (including with the GIZ, UNDP, and WB projects).
- 99. Knowledge-management activities will be included as part of the project’s Monitoring & Evaluation Plan and will be properly budgeted. Results from the project will be disseminated within and beyond the Boeny region through a number of existing information sharing platforms such as the FAPBM website, CI-Madagascar and partner web pages, and the GEF website. The project will identify, analyze, and

share lessons learned that might be beneficial for the design and implementation of similar future projects within Madagascar.

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

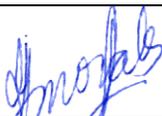
A. RECORD OF ENDORSEMENT²⁶ OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(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)
Christine Ralalaharisoa	GEF Operational Focal Point	GENERAL DIRECTORATE OF THE ENVIRONMENT	07/25/2016

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies²⁷ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Miguel Morales		03/06/2017	Orissa Samaroo	7033412550	Osamaroo@conservation.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.

²⁶ 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.

²⁷ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF