



**REQUEST FOR CEO ENDORSEMENT**  
**PROJECT: Full-sized Project**  
**TYPE OF TRUST FUND: GEF Trust Fund**

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**PART I: PROJECT INFORMATION**

Project Title: Strengthening the Network of New Protected Areas in Madagascar			
Country(ies):	Madagascar	GEF Project ID: <sup>1</sup>	5351
GEF Agency(ies):	UNEP	GEF Agency Project ID:	01082
Other Executing Partner(s):	Directorate of Inland Protected Areas (DAPT) (formerly the Directorate of Biodiversity Conservation and the Protected Areas Systems, DCB/SAP)	Resubmission Date:	August 10, 2017
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	60
Name of Parent Program (if applicable):	Not Applicable	Project Agency Fee (\$):	371,000
	<ul style="list-style-type: none"> <li>➤ For SFM/REDD+ <input type="checkbox"/></li> <li>➤ For SGP <input type="checkbox"/></li> <li>➤ For PPP' <input type="checkbox"/></li> </ul>		

**A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
Biodiversity 1 – Improving the sustainability of protected areas systems	Outcome 1.1: Improved management effectiveness of existing and new protected areas (Improving the effective management of PAs and NPAs)	Output 1: 6 new protected areas (NPAs) established and 3 existing protected areas strengthened, increasing coverage of currently under-represented and unprotected ecosystems types by 354,859 ha	GEF TF	3,905,265	45,407,409
Total project Costs				3,905,265	45,407,409

**B. PROJECT DESCRIPTION SUMMARY**

<p><b>Project Goal:</b> The rational and effective management Madagascar’s biodiversity and natural resources supports sustainable development for the well-being of the entire population, particularly the poorest of Madagascar society living in and around its protected areas.</p> <p><b>Project Objective:</b> Madagascar’s strengthened network of PAs provides enhanced protection and better representation of key ecosystems, and delivers economic and environmental benefits to local communities</p>						
Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1: Improvement of PA policy and governance	TA	1.1 Strengthened policy, governance, and financing frameworks for PA management, including for conservation of biodiversity and mangrove ecosystems	1.1.1: National PA agencies (DAPT, DREEF, CIREEF, CEEF, and CSAPM) have increased capacity to develop and manage the PA system	GEFTF	666,667	8,902,000
			1.1.2: Management instruments for PAs and mangroves are developed, discussed with stakeholders and submitted to the Government for approval			
			1.1.3: Monitoring and evaluation tools to measure the management effectiveness of PAs are identified and introduced to PA agencies			
			1.1.4: National Action Plan for mangrove conservation is formulated			
			1.1.5: Legal and regulatory amendments to ensure permanent protection of mangroves and effective PA			

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

<sup>3</sup> TA includes capacity building, and research and development.

			management are developed			
			1.1.6: Funding strategy for new PAs is developed			
2. Effective management of new PAs and critical mangrove sites (in existing PAs)	TA	2.1 6 new PAs and 3 critical mangrove sites within existing PAs are managed in a participatory manner and generating BD conservation and livelihoods benefits	2.1.1: Integrated Management Plans for 9 PAs are developed	GEFTF	2,775,014	22,355,429
			2.1.2: PA staff with increased capacity for PA management in collaboration with local communities			
			2.1.3: Local communities in areas adjacent to PAs and mangrove micro-sites have improved ability to participate in CBNRM, development of alternative sources of income and ecosystem restoration			
			2.1.4: Pilot projects on CBNRM, alternative sources of income and ecosystem restoration are developed and under implementation			
3. Knowledge management and public awareness	TA	3.1 Increased public awareness and policy integration of TEK and biodiversity conservation	3.1.1: Traditional Ecological Knowledge (TEK) database is developed and introduced to decision makers and local communities	GEFTF	277,619	12,949,980
			3.1.2: Lessons learned by the project are disseminated by different means at national and international levels			
			3.1.3: Awareness raising campaign on conservation of mangroves and other ecosystems is developed and implemented			
Subtotal					3,719,300	44,207,409
Project Management Cost (PMC) <sup>4</sup>				GEFTF	185,965	1,200,000
<b>Total Project Costs</b>					<b>3,905,265</b>	<b>45,407,409</b>

### C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form

Sources of Cofinancing	Name of Cofinancier (source)	Type of Cofinancing	Amount (\$)
National Government	Ministry of Environment and Forests/Directorate General for Forestry (and other members of the CSAPM)	In-kind	2,200,000
GEF Agency	UNEP	Cash	200,000
NGO	WWF	Cash	2,465,935
NGO	FEM (ASSOCIATION DES FEMMES)	Cash	42,000
NGO	FEM (ASSOCIATION DES FEMMES)	In-kind	45,000
NGO	Missouri Botanical Garden	Cash	792,474
National Government	Ministry of Agriculture	Cash	38,000,000
NGO	Durrell Conservation Trust	Cash	150,000
NGO	Peregrine Fund	Cash	950,000
NGO	Peregrine Fund	In-kind	162,000
NGO	Fondation Liz Claiborne	Cash	400,000
<b>Total Co-financing</b>			<b>45,407,409</b>

### D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
UNEP	GEF TF	Biodiversity	MADAGASCAR	3,905,265	371,000	4,276,265
Total Grant Resources				3,905,265	371,000	4,276,265

### F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
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<sup>4</sup> PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

International Consultants	45,000	56,000	101,000
National/Local Consultants - technical	265,000	400,000	665,000

**G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? NO**

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

**LIST OF TABLES**

Table 1: Analysis of Threats, Root Causes and Barriers	6
Table 2: Analysis of strengths, weaknesses, opportunities, and threats of current PA situation in Madagascar	7
Table 3: Inventory of PAs in Madagascar	10
Table 4: Representation of the Vegetation Types in the Protected Area Network of Madagascar in 2002 and 2013 (Source: MBG, 2013, CEPF Report, 2014)	10
Table 5: Baseline and Other Financing per Project Site	11
Table 6: Overview Information on the 9 Sites	15
Table 7: Project Framework Revisions	24
Table 8: Component 1 Outputs and Descriptions	27
Table 9: Definitions of effectiveness and sustainability	32
Table 10: Component 2 Outputs and Descriptions	33
Table 11: Component 3 Outputs and Descriptions	35
Table 12: Local populations in the project area and associated project budget	41
Table 13: Incremental cost reasoning	43
Table 14: List of ecosystems in Madagascar	46
Table 15: Risk assessment	47
Table 16: Stakeholder engagement	50
Table 17: Control over women’s income (% of women aged 15-49 yrs old, currently in union)	52
Table 18: Women’s Participation in Decision-Making, Either Alone or Jointly with their Spouse / Partner (% of Women from 15-49 yrs, currently in union)	53
Table 19: Budgeted M&E plan	55

**LIST OF FIGURES**

Figure 1: Map of the location of the 9 sites in Madagascar.....	14
Figure 2: Theory of change diagram.....	38

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF**

#### ***Project Description***

***A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.***

A number of salient developments have taken place since the PIF was approved, as follows:

#### **National Level Policies and Plans**

- Decrees granted for the creation of 94 new PAs: 94 Protected Areas in IUCN Categories V and VI have been created; almost all of them already have received their interdepartmental creation Decree and are working to obtain a definitive creation Decree. These considerable legal steps lend significant support to the assumption that senior political support exists for the permanent establishment of protected areas. The outlook for PA establishment is stable, and a solid framework exists for civil society and donor support to the PA network.
- Promulgation of new Protected Areas Management Code: Promulgation of Law n° 2015-005 is at the level of the National Assembly and deals with re-drafting of the Protected Areas Management Code, and on-going implementation decrees<sup>5</sup>. This promulgation strengthens the Protected Areas System in Madagascar because all sectors accept the presence of PAs, ensuring better coherence between policy approaches.
- Development of the National Development Plan and its Implementation Plan (NDP/PMO): These plans constitute the roadmap for Madagascar's national development for the next five years<sup>6</sup>. The project is designed to meet the objectives assigned by the state according to its development planning. The project responds to axis 5, point 2 of the National Development Plan.
- Updating of the National Action Plan to Combat Desertification: This plan has been updated to be better aligned to national policies and the international context such as the WDG and the PCSD 2008-2018<sup>7</sup>
- Drafting of the National Biodiversity Strategy and Action Plans (NBSAP): This involves updating the 2002 NBSAP according to the Strategic Plan for Biodiversity and the Aichi Targets for 2011-2020. It concerns relevant activities on land, marine, and coastal biodiversity of all sectors in the country. The NBSAP will reflect proposals for necessary policies, plans, strategies, and needs, at the national level.
- Development and submission of the 5th National Report to the Convention on Biological Diversity<sup>8</sup>: This report noted that areas under conservation management, which were meant to increase threefold between 2003-2012, unfortunately underwent unpredictable constraints when international funding was cut or frozen. Such concerns now seem to be resolved, the report notes. A major achievement since the 4th national report (a four year period) is that the Malagasy Government has started to definitely establish new protected areas covering a total area of 4,751,895 ha.

#### **Regional Level Policies and Plans**

- The Regional Territorial Development Plan (SRAT) for the Boeny, Menabe, Atsimo Andrefana, and Melaky Regions: This plan under development is important for integrating the conservation and natural capital component in accordance with Strategic Objective 5 of Madagascar's National Development Plan.

#### **National Level Institutions:**

- The Ministry of Environment and Forestry has grown its mandate to include 'Ecology' and 'Sea', and became the Ministry of Environment, Ecology and Forestry (MEEF) with Decree No. 2015-092 of 10 February 2015.
- The project executing agency has evolved: the former Directorate for the Conservation of Biodiversity and Protected Areas (Direction de la Conservation de la Biodiversité et des Systèmes des Aires Protégées or DCB/SAP) has become the Directorate of Inland Protected Areas (DAPT).
- The National Commission for the integrated management of Mangroves was established by Decree on 7 April 2015; it will help all stakeholders in making decisions concerning mangrove conservation.

#### **Site Level Institutions**

<sup>5</sup> See detail at [http://mg.chm-cbd.net/implementation/Documents\\_nationaux/textes-legislatifs-nationaux/code-des-aires-protégees](http://mg.chm-cbd.net/implementation/Documents_nationaux/textes-legislatifs-nationaux/code-des-aires-protégees) (in French).

<sup>6</sup> See detail at (see Site web <http://ozoonline.com/wordpress/wp-content/uploads/2015/01/PND-version-definitive.pdf>

<sup>7</sup> (see website <http://www.ecologie.gov.mg/les-conventions-ratifiees-par-madagascar/convention-sur-la-lutte-contre-la-desertification/>)

<sup>8</sup> Available in full in English <https://www.cbd.int/doc/world/mg/mg-nr-05-en.pdf> and French <https://www.cbd.int/doc/world/mg/mg-nr-05-fr.pdf>

- Important stakeholders at the mangrove sites have become more active, notably: the CSO Women and Environment in Mahajanga, Boanamaro Mangrove; the Rally of Operators to support Environment and Development of Agriculture (ROSEDA) and the ‘Think-tank and Action for Development and Environment’ (CRADES), local CSOs working on mangroves protection in the Ambaro Bay; and the Alokaina Public Organization of Inter-communal Cooperation (OPCI) on the Menabe Mangroves. Thus, since the preparation of the PIF, the state and other actors have already taken steps to conserve mangroves and the proposed GEF investment will be built on a stronger foundation.

#### Project Management

- An effective institutional arrangement has been established to oversee the development and implementation of this proposed GEF project in which a National Project Team plays the role of coordinator (see details in Annex H: Institutional Arrangements).
- The proposed project’s Steering and Monitoring Committee (COS) is to be technically led at the regional level by the Regional Directorate of Environment, Ecology, and Forestry (DREEF) and the Chief of Region. This represents a change from recent situation, since now DAPT prepares the management plans for all of these PAs, the establishment of this committee in each region, and is otherwise very important in the management of these PAs.

#### **A.2 GEF focal area and/or fund(s) strategies, eligibility criteria and priorities**

- N/A (no update since PIF)

#### **A.3 The GEF Agency’s comparative advantage**

- N/A (no update since PIF; UNEP’s comparative advantage remains the same as in the PIF)

#### **A.4 The baseline project and the problem that it seeks to address:**

Madagascar is among the 10 hotspots of world biodiversity with a high concentration of endemic species; indeed the iconography of the country is very closely tied to its biodiversity assets. Based on current knowledge, the Malagasy ecosystems are home to approximately 12,000 species of plants, 370 species of reptiles, 244 species of amphibians, 154 species of fish and 99 species/sub-species of lemurs<sup>9</sup>. It is estimated that 83% of flora species are endemic<sup>10</sup>. Information on biodiversity specific to mangroves is less comprehensive, although enough is known to state that Madagascar has large and important coastal and marine ecosystems, including large areas of mangrove, coral reef and sea grass. Madagascar’s coastal and marine ecosystems provide a habitat for large populations of fauna, including 5 species of turtle, 27 marine mammals and many globally important colonies of seabirds. (Information on biodiversity at the project sites is provided in Table 6).

Madagascar’s biodiversity is globally important, yet it is being rapidly lost. The protected areas of Madagascar play a critical role in the provision of economic and social value, which is notably important for a Least Developed Country with a Human Development Index in the bottom of global rankings<sup>11</sup>, and a high and growing poverty headcount<sup>12</sup> (see also Poverty profile below).

#### **Madagascar’s poverty profile**

Madagascar is defined as a low-income country, ranking 154th out of 187 countries in the 2015 Human Development Report (UNDP)<sup>13</sup>. Poverty in Madagascar has increased and today 72% of the country’s estimated 22 million people live below the national poverty line. The Multidimensional Poverty Index (MPI) identifies multiple deprivations in the same households in education, health and living standards. In Madagascar 77% of the population - 15 million people - are multi-dimensionally poor while an additional 11.7% live near multidimensional poverty (2.3 million people)<sup>14</sup>. The Gender Development Index (GDI) measures gender inequalities in achievement in three basic dimensions of human development: health, education; and command over economic resources (defined as a ratio of the female to the male HDI). In 2014, Madagascar’s GDI was 0.945, showing more parity than the average of 0.872 for sub-Saharan Africa.

<sup>9</sup> 4<sup>th</sup> National Report to UNCBD, Government of Madagascar, 2011.

<sup>10</sup> The endemic and non-endemic vascular flora of Madagascar updated, Callmander et al. 2011

<sup>11</sup> <http://hdr.undp.org/en/content/human-development-index-hdi-table>

<sup>12</sup> Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population) was 74.1% in 2005, and grew to 81.8% 2010, according to the World Bank. <http://povertydata.worldbank.org/poverty/country/MDG>

<sup>13</sup> <http://hdr.undp.org/en/countries/profiles/MDG>

<sup>14</sup> [http://hdr.undp.org/sites/all/themes/hdr\\_theme/country-notes/MDG.pdf](http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/MDG.pdf)

## Threats and Root Causes

In the business-as-usual scenario, there are significant threats that the PA network will be unable to conserve biodiversity (a recent assessment of 2,300 flora species in Madagascar determined that fully 78% were threatened with extinction<sup>15</sup>) or protect ecosystem services that are currently relied on (particularly by poor and vulnerable groups). These threats fall under three broad categories: 1) uncontrolled exploitation is altering and damaging Protected Areas, with unclear and possibly sub-optimal (and unevenly distributed) socio-economic returns; 2) rapid and uncontrolled/unplanned land-use change is weakening the future ability to mitigate threats from climate change and to provide services in the future; 3) damage caused by invasive alien species, fire and disease will further weaken the natural ecosystems within PAs and their ability to play an active role in mitigating future threats. Driving these threats are several root causes, including: i) rapid population growth outpacing the ability of government to monitor natural areas and enforce regulations; ii) rapid urban development (and loss of rural management knowledge); and iii) large-scale (temporal and geographic) threats of global changes in climate.

Against the backdrop of these driving root causes, the following table details the threats, the relevant aspects of the root causes, the barriers to addressing them in the business-as-usual scenario, and the solutions to overcome them proposed by the project's GEF alternative. Additional details on the threats and root causes at the site level are provided in Table 6.

**TABLE 1: ANALYSIS OF THREATS, ROOT CAUSES AND BARRIERS**

Threat/impact (unwanted biological impact)	Root Causes	Management challenge / barrier	Solutions or Barrier removal activity
<p><b><i>Threat 1: Over-exploitation of resources, and illicit collection and export of animal species</i></b></p> <ul style="list-style-type: none"> <li>- Over-harvesting of precious wood species, wild tubers, medicinal plants, and ornamental succulents.</li> <li>- Unsustainable and typically illegal hunting of species such as tortoises and the sea turtles, chameleons, and lemurs is an important current threat in the protected areas and other conservation sites.</li> <li>- Unsustainable logging for construction and especially for charcoal and fuelwood needs (particularly for mangrove forests).</li> <li>- In many parts of the island, overfishing is practiced since fishermen do not generally respect the legal catch period.</li> </ul>	<ul style="list-style-type: none"> <li>- High demand for natural products</li> <li>- Lucrative international markets, lacking in strong oversight and supply-chain management</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient human capacity to monitor and enforce</li> <li>- Limited legal framework</li> <li>- Limited understanding of drivers</li> </ul>	<ul style="list-style-type: none"> <li>- Invest in capacity</li> <li>- Create legal framework</li> <li>- Research and investigate the drivers</li> <li>- Enhanced monitoring tools and approaches</li> <li>- Develop, test and demonstrate models of sustainable resource management in PA context</li> </ul>
<p><b><i>Threat 2: Rapid, uncontrolled land-use conversion (and unregulated industrial development)</i></b></p> <ul style="list-style-type: none"> <li>- Deforestation for agricultural purposes and bushfires for grazing are significantly degrading watersheds and aquatic ecosystems (lakes, ponds and streams)</li> <li>- Mangrove areas are being converted to agricultural production</li> <li>- Legal and illegal mining and oilfields projects have expanded considerably in recent years and produce significant negative impacts on the environment: many rare and unique species of the island are directly threatened by the development of these projects and some sensitive areas are threatened by recent discoveries of gold and precious stones deposits.</li> <li>- Overall, the loss of natural habitat in the country is estimated at 0.55% per year<sup>16</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>- High demand for agricultural and industrial land</li> <li>- Pressure for economic growth for poverty alleviation</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of regulation and enforcement</li> <li>- Lack of sustainable local economic alternatives</li> </ul>	<ul style="list-style-type: none"> <li>- Local economic opportunities generated by a strong PA network</li> <li>- Investigate and promote livelihood alternatives</li> <li>- Develop, test and demonstrate models of sustainable land management in PA context</li> </ul>

<sup>15</sup> Personal communication, Missouri Botanical Garden.

<sup>16</sup> 4<sup>th</sup> National Report to UNCBD.

Threat/impact (unwanted biological impact)	Root Causes	Management challenge / barrier	Solutions or Barrier removal activity
<p><b>Threat 3: Disease, invasive alien species, and uncontrolled fires</b></p> <ul style="list-style-type: none"> <li>- Imported diseases and pests are a threat to native flora and fauna</li> <li>- Repeated bushfires to clear vegetation for grazing and slash-and-burn agriculture continue to destroy thousands of hectares of savannahs and forest areas every year and kill countless species of animals, plants, and microorganisms; a significant percentage of which are not yet known to science</li> <li>- Human disturbances encourage the presence of invasive alien species (IAS) that are frequently harmful to biodiversity. IAS can easily colonize new areas and compete with native plants and animals. For example, <i>Rattus rattus</i>, has caused enormous damage to biodiversity in many different habitats (forest, savannah, mangroves, etc.) in the country</li> <li>- Intensive fishing has contributed to coral reef degradation and the proliferation of green algae (<i>Turbinaria sp.</i>), preventing the development of corals and spiny sea urchins (<i>Diadema sp.</i>)</li> </ul>	<ul style="list-style-type: none"> <li>- High demand for agricultural land; industrial fishing</li> </ul>	<ul style="list-style-type: none"> <li>- Limited knowledge of returns from sustainable methods</li> </ul>	<ul style="list-style-type: none"> <li>- Demonstrate models of sustainable management (esp. mangrove areas), working with local communities</li> <li>- See Oliver et al (2015) Positive Catch &amp; Economic Benefits of Periodic Octopus Fishery Closures: Do Effective, Narrowly Targeted Actions ‘Catalyze’ Broader Management? PLoS ONE 10(6).</li> </ul>

### **SWOT Analysis**

During the PPG phase, an analysis of the strengths, weaknesses, opportunities and threats of the current situation in Madagascar was undertaken, to inform the priority actions for the GEF project. A summary is provided below.

**TABLE 2: ANALYSIS OF STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS OF CURRENT PA SITUATION IN MADAGASCAR**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>- All the structures are in place;</li> <li>- Law and regulations implemented especially at PAs levels;</li> <li>- Participation of technical stakeholder in all CSAPM meetings;</li> <li>- Establishment of ministerial and inter-sectoral structures like Forestry-Fisheries Commission, Forestry-Hydrocarbon, Mining-Forestry, Land- Forestry;</li> <li>- Implementation of a legal framework to protect conservation sites for a total area of 6,909,762 hectares including 94 recently created PAs;</li> <li>- Existence of REPC that has developed the standards of competence in II-3- Protected Areas Management;</li> <li>- Existence of participatory ecological monitoring;</li> <li>- Respect for traditional values and Dina by native populations;</li> <li>- Existence of dissemination and sensitization vector by promoters.</li> </ul>	<ul style="list-style-type: none"> <li>- Overall, network-wide Development and Management Plan</li> <li>- Lack of a theory of change for interventions and over-arching logical framework will jeopardize the implementation of activities once the final creations are granted;</li> <li>- Development and Management Plan unknown at regional level for some sites (e.g. case of Point à Larrée)</li> <li>- The management structure is not yet functional, only operators decide according to business lines approved by donors;</li> <li>- No ownership taken by regional and local stakeholders (e.g. DREEF, chief of the cantonment....) due to lack of proper communication by the operators and the central level;</li> <li>- Lack of personnel and equipment at DAPT level and decentralized administrations, resulting in delays in performing their work;</li> <li>- The administration depends exclusively on operators in performing their functions (monitoring and control) preventing the smooth running of their sovereign function;</li> <li>- Lack of coordinated Malagasy specific national tracking system in PAs effective management and its impacts on biodiversity;</li> <li>- Lack of law enforcement especially in the court which causes weariness especially from the grassroots community part;</li> <li>- Lack of clarification with respect to Categories V and VI specificities;</li> <li>- 10% of national territory must be part of SAPM: identification based on species and ecosystems;</li> <li>- Inconsistency of sectoral texts related to biodiversity;</li> <li>- Governance gaps at the VOI level.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>- Presence of eco-tourism operators, bringing the potential for additional</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of competence of some stakeholders in conducting their activities, thus some training is required;</li> </ul>

<p>value to be derived from sustainable PA management</p> <ul style="list-style-type: none"> <li>- Commitment of the highest level of the country (Presidency) to achieve development results from the permanent creation of new protected areas;</li> <li>- Presence of national donors; e.g. Tany Meva Foundation and FAPBM, who can support emerging priorities</li> <li>- Increasing uptake of Payment for Ecosystem Services (PES) schemes including opportunities created by the carbon financing market</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of funding to conduct EIE, to develop the PGES, and to monitor them;</li> <li>- Lack of funding to undertake the various process, especially delimitation and zoning;</li> <li>- Governance issues at the level of decentralized administrations due to interventions from politicians in the Pas occupation;</li> <li>- Compared to existing tools, difficulty in obtaining PAs environmental permit, the cost of which is considered too expensive by the promoters;</li> <li>- Monitoring and auditing by national donors like FAPBM is unclear resulting in suspended funds (case of Ambohidray) (auditors are not objective in their judgment) and audit reports are not sent to the promoter;</li> <li>- Overlapping of PA land use and Mining or Hydrocarbon;</li> <li>- Poor governance in law enforcement;</li> <li>- Non-compliance with laws and laws hierarchies especially between the various involved technical stakeholders;</li> <li>- Regulations concerning legislation in PAs are unknown to technical administrations (e.g. the suspension of mining exploration licenses and the implementation of the process of granting land to respond to each request in the PA)</li> <li>- Proliferation of illegal exploitation of natural resources: Almost in all visited sites (Point à Larrée: wood, Boanamaro: wood and fisheries, Ambaro: wood and fisheries...)</li> <li>- Delay in the promulgation of the COAP, which was approved by the Congress (National Assembly, Senate) and the HCC in 2009, but is still waiting for the President's approval. A revised COAP was submitted to the Council of Ministers in November 2014, but this was only promulgated in February 2015.</li> </ul>
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### **Barrier Analysis**

Inadequate Institutional, Policy, Regulatory and Financial Frameworks for Protected Areas in Madagascar: At present, the coordination functions and authority of CASPM are unclear, which has constrained efforts to expand the SAPM, and also means that conflicts continue between conservation and socio-economic sectors (notably mining, fisheries, agriculture) in the absence of conflict resolution mechanisms. Furthermore, weak capacities at CASPM and other key stakeholders for managing the PA expansion process means that Madagascar faces the risk that many of the 94 NPAs will be nothing more than paper parks. The process to create *permanent* NPAs remains very expensive and too complicated for many of the smaller NPAs, and the government depends heavily on operators of PA sites to not only perform management functions but also to carry out the steps required for permanent designation, tasks for which most of the operators are not well capacitated. Ineffective institutional and coordination structures and a lack of proper communication by the operators and the central level also mean that most important regional and local stakeholders (e.g. DREEFs, chiefs of cantonments, etc.) do not participate significantly in PA operations. Madagascar also lacks any coordinated national tracking system of PA management and its impacts on biodiversity. The lack of personnel and equipment at DAPT and other relevant agencies frequently results in long delays before work is completed or decisions are taken. At the policy level, there are substantial inconsistencies in sectoral policy documents and plans related to biodiversity. In addition, at many sites, land uses authorized prior to the establishment of the NPA (e.g. for mining) are still valid and contradict biodiversity conservation objectives. The legal framework for NPAs is also incomplete, and limited capacities for effective law enforcement (including within the court system) restrict NPA management and reduce support and participation of local communities. For mangrove sites, existing legislative frameworks for land use and protected areas are not appropriately adapted to cover mangrove ecosystems. Financing for PA coordination and management is another significant barrier; in general the financial resources dedicated to the management of NPAs (not to mention existing PAs) is inadequate for even basic PA management functions (e.g. planning, delimitation and zoning, monitoring and enforcement, etc.).

Management of individual Protected Areas constrained by poor governance, insufficient technical capacities and lack of community participation: At the site level, many protected areas in Madagascar are operating without management structures or plans. As a result, many PA operators respond primarily to the priorities of donors and / or the interventions of politicians rather than following well-constructed plans for effective management. Furthermore, because PA management is frequently informally done, many stakeholders do not comply with PA regulations or directives. For NPAs, there are too few examples of how to effectively establish and operate an NPA that can guide other managers, and the situation for priority mangrove sites is even worse, as there are no examples of integrated



mangrove management approaches in the country. In addition, the lack of monitoring and reporting capacities and processes for protected areas means that managers have very little information on the impact of management activities on conservation and sustainable development objectives. Technical capacities within most PAs are weak, including inadequate staffing and poor capacity to do management planning, to undertake conservation measures, or to develop participatory management processes with local communities. Participatory management is also constrained by the very limited capacities of most community structures / organizations; this also affects the development of models for conservation-based livelihoods programs that can benefit both PAs and local communities, and as a result there are few good models for such programs in the country to learn from.

Insufficient knowledge and public awareness of the potential benefits and opportunities of protected areas and biodiversity conservation: Communities in rural areas of Madagascar have a tremendous amount of Traditional Ecological Knowledge (TEK) that could help to guide efforts to conserve biodiversity and also to identify collaborative livelihoods activities with PA management structures. However, at present this knowledge is often overlooked and/or undervalued by PA managers and other resource management stakeholders. More generally, the lack of showcase NPAs and mangrove conservation sites means that the potential of such locations is not widely understood, nor capable of creating momentum and interest in future investments. As one example, the role of mangroves in both mitigating and reducing vulnerability to climate change is greatly under appreciated. While many global studies have demonstrated that mangroves provide resistance to storms and coastal erosion and can store enormous amounts of carbon, this is not appreciated by either local communities or economic decision-makers in Madagascar. The lack of information and data on ecosystem services and the low levels of appreciation of their potential socio-economic values for local communities and the country as a whole is a critical barrier to generating local and national support for conserving NPAs and mangrove conservation sites, and even contributes to the opposition to conservation efforts by local communities at some sites.

### **Baseline Situation and Overview of Madagascar's Protected Areas System**

Madagascar is one of the poorest countries in the world; the most recent Human Development Report ranked it 155 of 178 countries<sup>17</sup>. Uncertainty linked to political instability, weak institutions, and weak governance has been eroding the country's progress in reducing poverty, supporting livelihoods and promoting economic growth. Since a political crisis in 2009, basic services and institutions have deteriorated. The government that assumed power in early 2014, following constitutional elections, has shown a commitment to addressing Madagascar's challenges. It is well recognized that the unique biodiversity of Madagascar constitutes an economic advantage of the highest importance to achieving the country's development ambitions. However, this valuable development asset is severely endangered. The natural forest that originally covered much of the island has disappeared rapidly. Critical ecosystem services, such as the reliable supply of freshwater, are increasingly under pressure. The failure to protect soil resources is now chronically affecting the country's economy, for example via the silting of agro-rice perimeters, port infrastructure, hydroelectric infrastructure, and road subsidence.

Working closely with international partners, the Government and the people of Madagascar have made great efforts to conserve the nation's biodiversity and ecosystem services, and protected areas are a key component of this effort. A major step was the establishment and funding of a network of National Parks in the 1990's and early 2000's, covering approximately 1.7 million hectares of prime habitat under IUCN categories I, II and IV. However, over time several weaknesses in the network of protected areas were identified, including a strong focus on humid forest ecosystems that left out other critical ecosystems, notably coastal and marine ecosystems and mangroves; a focus on strict conservation, with insufficient attempts to develop sustainable utilization and participatory co-management approaches; and over reliance on international partners, leaving questions over sustainability and capacity to replicate.

In response to these problems, in the early 2000's Malagasy stakeholders developed a vision for expanding and improving the country's system of protected areas. This vision, unveiled at the World Parks Congress in 2003<sup>18</sup>, included a pledge to triple the surface of Madagascar's protected areas from 1.6 million hectares to 6 million hectares, representing 10% of the country's total land area<sup>19</sup>. The vision notably included greater coverage of marine and coastal sites, and inclusion of IUCN PA categories III, V and VI. This measure would also help the country to achieve

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<sup>17</sup> <http://hdr.undp.org/en/countries/profiles/MDG>

<sup>18</sup> Accordingly it is referred to as the 'Durban Vision'.

<sup>19</sup> A pledge made during the World Parks Congress in Durban in 2003. At the Sydney World Parks Congress in 2014, Madagascar reiterated its commitment to triple protected area coverage on land, added a commitment to triple marine protected area coverage, and promised to bring an end to the illegal rosewood trade and promised to ensure effective management of all its protected areas.

the corresponding CBD target<sup>20</sup>. The prioritization of future protected sites was done using science-based criteria (distribution of endemic and endangered plant and animal species, and identified threats) from scientific experts, research institutions, and environmental NGOs. MARXAN and ZONING programs were used to analyse information and mapped elements, with information put into a database managed by the Biodiversity Network in Madagascar (REBIOMA) under the guidance of the SAPM Commission (CSAPM) headed by the Directorate of Inland Protected Areas (DAPT)<sup>21</sup> in the Directorate General of Forestry (DGF) at the Ministry of Environment, Ecology and Forestry (MEEF). The initial prioritization of which Protected Areas to establish to meet the intended targets and objectives was conducted<sup>22</sup> by overlaying the scientific knowledge of national and international experts, with the list of internationally-recognized designations, notably: Key Biodiversity Areas, Important Bird Areas, Important Plant Areas, and of Invertebrates and Vertebrates Zoning (using the Marxan tool).

Through this process, 94 so-called ‘New Protected Areas’ (NPAs) have been established in the country. These NPAs cover over 4 million hectares and are critical to the conservation of globally significant biodiversity in Madagascar. Most of NPAs established since 2003 still only have a ‘temporary’ status – and for most achieving permanent status remains very difficult. The involvement of civil society is considered essential for the operation of the NPAs, with the national government playing increasingly more of an oversight than implementation role. For each NPA, a “promoter” (either a national or international governmental or non-governmental organization) was appointed with responsibility for developing local capacity, implementing urgent actions and facilitating the process to obtaining permanent protection status and thus complementing baseline investments from the local and national government. In some cases, the promoters have been formally delegated management responsibility.

With the addition of the 94 NPAs, Madagascar currently has 122 protected areas in the national PA systems. Of these, 43 PAs are managed by Madagascar National Parks (MNP)<sup>23</sup>, an independent agency operating via the authority of MEEF; 16 PAs are managed by MEEF; and 63 new PAs managed by a variety of other entities, including CI, WWF, WCS, DURRELL, The Peregrine Fund, Blue Ventures, FANAMBY, DELC, BCM, MBG, RBG Kew, etc. In total, these 122 PAs cover an area of 7,082,525.78 hectares, representing more than 10% of the country’s national territory. Among the 94 NPAs, only 10 sites have received a decree of definitive protection; the other sites remain “Temporary” NPAs, and much fulfil additional requirements such as completing a PAG (Development and Management Plan), a PGES (Environmental and Social Management Plan), and a CCE (Environmental Specifications) in order to receive a decree granting permanent protection. A summary of the current protected areas in Madagascar is shown in the table below:

**TABLE 3: INVENTORY OF PAS IN MADAGASCAR**

Protected Areas in the network of Madagascar National Parks	43
PAs with permanent protection outside of the network of Madagascar National Parks	6
Temporary NPAs granted with individually global permanent protection in May 2015	63
Temporary NPAs granted with global permanent protection in May 2015	10
<b>TOTAL</b>	<b>122</b>

The addition of a significant number of new PA sites to the national PA network in the past 14 years has succeeded in greatly expanding the coverage of the PA system of critical ecosystem / vegetation types in Madagascar. As shown in Table 4 below, the PA network’s coverage of the majority of vegetation types in the country has increased dramatically since 2002.

**TABLE 4: REPRESENTATION OF THE VEGETATION TYPES IN THE PROTECTED AREA NETWORK OF MADAGASCAR IN 2002 AND 2013 (SOURCE: MBG, 2013, CEPF REPORT, 2014)**

Type of vegetation	Total Area of	Situation in 2002	Situation in 2013
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<sup>20</sup><https://www.cbd.int/doc/reports/cbd-report-2006-en.pdf>

<sup>21</sup>Formerly the Directorate of Biodiversity Conservation and Protected Areas Systems (DCB/SAP).

<sup>22</sup>[arcese.forestry.ubc.ca/marxan-tool](http://arcese.forestry.ubc.ca/marxan-tool)

<sup>23</sup>Previously, only Madagascar National Parks manages protected areas in Madagascar . But after the Parks Congress in Durban (2003), NGOs are also called upon to manage the AP, and this number corresponds to AP managed by the MNP whose status has not changed.

	Vegetation Type in Madagascar (km <sup>2</sup> )	Area Protected (km <sup>2</sup> )	% of Total Area Protected	Area Protected (km <sup>2</sup> )	% of Total Area Protected
Rainforest	47,737	7,962	16.7	24,367	51.0
Western Dry Forest	31,970	3,248	10.2	7,807	24.4
South Western Dry Spiny Forest Thicket	18,355	264	1.4	7,255	39.5
Wetlands	5,539	49	0.9	1,435	25.9
Mangroves	2,433	45	1.9	856	35.2
Western Sub-Humid Forest	4,010	276	6.9	373	9.3
Tapia Forest	1,319	272	20.6	278	21.1
Littoral Forest	274	2	0.8	04	38.0
Western Humid Forest	72	0	0.3	38	52.3
South Western Coastal Bushland	1,761	9	0.5	11	0.6

Advances in the baseline for the protected areas system in Madagascar have also include new institutional and policy frameworks. Responding to the 2003 commitment to expand the PA system, the "SAPM Commission" (System of Protected Areas of Madagascar) was created to identify priority sites for biodiversity conservation and to develop the necessary tools in the implementation process of these new protected areas. The CSAPM is active as a coordination and awareness raising mechanism, and has established sub-Committees to focus on resolving specific challenges related to mining, fisheries and land-use. For example, the CSAPM's Forest-Mining sub-Committee continues to be very active attempting to settle conflicts – although with only limited success to date. In addition, individual CSAPM members support awareness raising, training, and data collection, and undertake a variety of institutional support activities. Under the auspices of CSAPM, a series of detailed guidance documents and manuals have been created to guide the development and formalization of the process to create and manage NPAs. Furthermore, the DCBSAP is working on the updating of the Protected Area Code.

In terms of the nine specific sites targeted by the project, Table 5 below provides information on the baseline programs currently being implemented by various donors and other partners at each site. In addition, Table 6 has more details on the activities being carried out by these projects.

**TABLE 5: BASELINE AND OTHER FINANCING PER PROJECT SITE**

Site	Timing	Donors / partners	Objectives / Detail	Financing
<b>Bemanevika NPA</b>	Ongoing	The Peregrine Fund (TPF)	Project working towards conservation in the NPA, capacity building, supporting permanent protection, etc. (see <a href="http://209.161.5.216/projects/madagascar-project">http://209.161.5.216/projects/madagascar-project</a> ) and research <sup>24</sup>	
	Ongoing	Wildfowl & Wetland Trust (WWT), Durrell Wildlife Conservation Trust (DWCT), TPF, and the Government of Madagascar	Madagascar pochard: conservation breeding, restoring wetland habitat, etc. <sup>25</sup>	
	Ongoing	WWT	Campaign to save the Madagascar pochard <sup>26</sup>	
		The Mohamed bin Zayed Species Conservation Fund (via TPF)	Documenting status of one of three Critically Endangered chameleons on Earth: the Bizarre-nosed Chameleon ( <i>Calumma hafahafa</i> ) <sup>27</sup>	
<b>Lac Alaotra NPA</b>	2009-2011	CEPF (via TPF)	Supporting NPA planning, establishing a steering committee (COE), development of a management structure, establishing a CBRNM programme (GELOSE) with FBM and FIMAKA as the local managers of the NPA	Portion of US\$ 150,000
	Ongoing	Madagascar Wildlife Conservation - partnering with Ako Project, DWCT, GERP	Madagascar Wildlife Conservation is a dedicated NGO for this lake - promoting long-term initiatives that integrate biodiversity conservation, environmental	

<sup>24</sup><http://www.journalmcd.com/index.php/mcd/article/view/169>

<sup>25</sup> <http://www.wwt.org.uk/conservation/wwt-projects/saving-the-madagascar-pochard/>

<sup>26</sup> <http://www.wwt.org.uk/support/our-appeals/mission-madagascar/>

<sup>27</sup> <http://www.speciesconservation.org/grant-files/documents/document-245.pdf>

Site	Timing	Donors / partners	Objectives / Detail	Financing
		Madagascar (Group d'étude et de recherche sur les primates de Madagascar), Madagascar Fauna Group, McCrae Conservation and Education Fund, University of Hildesheim, University of Antananarivo	education and rural development using a scientific-based approach <sup>28</sup>	
	Not identified	UK Economic and Social Research Council (ESRC) and DWCT	Research on impacts of restricted area interventions and fishery closures on fisher people <sup>29</sup>	
		Yale University	Biodiversity surveys, studies of lemurs	
	Mar. 2016 - Jan. 2018	SOS Species (managed by IUCN)	Habitat protection, alternative livelihoods, improved monitoring of threats, and will increase law enforcement and compliance through a community patrol programme, etc. <sup>30</sup>	
<b>Makirovana Tsihomanaomby Complex NPA</b>	2012	Missouri Botanical Garden	Research on figs, other plants; some alternative livelihood support <sup>31</sup>	
	2015	WWF – Switzerland	Training in patrol and law enforcement monitoring for community associations <sup>32</sup>	
	Ongoing	Tany Meva Foundation	Conservation carbon project - with GEF Small Grants, and Clean Development Mechanism (CDM) activities	
<b>Ranobe PK 32</b>	Ongoing	Lemur Conservation Network and IUCN, funded by Bristol Zoological Society	Campaigning for lemur conservation (see <a href="http://lemurconservationnetwork.org/ranobe-madagascars-forgotten-forest/">http://lemurconservationnetwork.org/ranobe-madagascars-forgotten-forest/</a> )	
		Seacology (NGO)	Funding an ecotourism visitors centre in exchange for an agreement to cease all habitat disturbance in the NPA	
	2007-present	Ho Avy supported by WWF, Naturefund Forest Network, The Rufford Small Grants Foundation, Yves Rocher Foundation, etc.	A grassroots Malagasy Association engaged in community conservation and sustainable development. Working with local community members to raise awareness of the importance of the forest and encourage conservation partnerships through the establishment of two community protected no-harvest forest reserves <sup>33</sup>	
		Reef Doctor (UK NGO)	Marine conservation including coral reef research and implementing marine management, education and social development with local fishing communities in the Bay of Ranobe <sup>34</sup>	
<b>Point à Larrée NPA</b>		APDRA, PROSPERER, PPRR	Related to mangroves and fisheries management: - APDRA is involved in fish farming and dam construction around Vavatenina and Fenoarivo-Atsinanana - PROSPERER is focused on the training of fishermen - PPRR is involved in the training of fishermen, loans to fishermen for equipment and seeking markets for fish products.	
	2004-2009	CI, WCS, USAID, WWF, and government	Programme to maintain integrity of critical habitat corridors	
<b>Tsimembo Manambolomaty NPA</b>		Madagascar PA Foundation with IUCN and Conservation Finance Alliance (CFA)	The Foundation has helped to build and maintain the boundaries of the park; has funded development activities such as beekeeping and water supply; and has	

<sup>28</sup> <http://www.madagascar-wildlife-conservation.org/>

<sup>29</sup> <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129440>

<sup>30</sup> <http://www.sospecies.org/content/improving-conservation-status-hapalemur-alaotrensis-through-habitat-protection-and-community>

<sup>31</sup> <https://www.scribd.com/document/144607847/Madagascar-Research-and-Conservation-Programme-Annual-Report-2012>

<sup>32</sup> [https://assets.wwf.ch/downloads/nhl\\_factsheet\\_finale\\_eng\\_public\\_lr.pdf](https://assets.wwf.ch/downloads/nhl_factsheet_finale_eng_public_lr.pdf)); other conservation support

<sup>33</sup> <http://www.hoavy.org/en/> and e.g.

[http://www.naturefund.de/en/support\\_naturefund/forest\\_network/forest\\_network\\_news/news\\_wald\\_netzwerk/article/report-from-madagascar.html](http://www.naturefund.de/en/support_naturefund/forest_network/forest_network_news/news_wald_netzwerk/article/report-from-madagascar.html)

<sup>34</sup> <http://www.reefdoctor.org/>

Site	Timing	Donors / partners	Objectives / Detail	Financing
including the mangroves in Masoarivo			covered the wage costs of the management staff	
		The Peregrine Fund	Provide park management services through independent fundraising <sup>35</sup> ; elsewhere described as co-management with local communities, e.g. in Gardner et al 2013	
		WWF, DICE, Université de Toliara, Blue Ventures, ESSA, Peregrine Fund	Research on poverty and livelihoods related to the NPA e.g. the re-establishment of traditional fishing rules at Manambolomaty (Gardner et al 2013)	
Ambaro Bay		USAID - funding to Peregrine Fund and DICE	Supported formulating the vision and objectives of management and site conservation; stakeholder engagement; development of a CBNRM programme; etc. <sup>36</sup>	
System-wide (cross-referenced where funding went to a site in the project)		World Bank, GEF, Japan, etc.	Support to Madagascar's protected area network <sup>37</sup> . Ratings for the Third Environmental Program Support Project for Madagascar were as follows: outcomes were moderately unsatisfactory, the risk to development outcome was high, the Bank performance was moderately unsatisfactory, and the Borrower performance was unsatisfactory <sup>38</sup> .	\$102.9 million
	Since 2005	MIARO - Madagascar Biodiversity Fund, supported by CI and WWF, AFD	Trust Fund / Foundation that strives for the financial sustainability of Madagascar's protected areas and biodiversity. It carries out numerous actions that relate to the funding of the recurrent managerial costs of the protected areas and of projects that aim at reducing the pressures put on them, while addressing the needs of the populations <sup>39</sup>	\$52 million capital
		Malagasy Foundation for Protected Areas and Biodiversity		EUR 13 million

### Introduction to the project sites

This section provides an overview of the baseline situation at the nine project sites. Considerable detail is also provided in the “Diagnostic study of the project intervention sites” (in English and original French) prepared during the PPG phase. Nine sites have been selected to participate in the proposed project; of which six are existing NPAs and 3 are “micro-mangrove” sites that are currently unprotected. The selection of these nine sites was made through during a series of meetings of the SPAM Commission, based on the following selection criteria: 1) NPAs in advanced stage of creation, but lacking funding; 2) NPAs that are not funded by the MRPA project or other external funds; and 3) mangrove sites devoid of legal protection status. The nine sites can be broadly categorized as follows:

- The Pointe a Larree NPA has permanent protection status
- The Bemanevika, Lac Alaotra and Ranobe PK NPAs currently have temporary protection status, and have significantly progressed towards achieving permanent status
- The Makirovana Tsihomanaomby currently has temporary protection status, and has started the process towards achieving permanent status
- The Baie d’Ambaro site includes a complex of mangroves, some of which lie within a temporary NPA
- The Tsimembo-Manambololmaty NPA and the Boanamary and Morondava sites each encompass small but critical mangrove sites that have been degraded and for which, as yet, there is no protected area.

<sup>35</sup> <http://mg.chm-cbd.net/objectifs-d-aichi/strategie-c/objectif-11/mise-en-oeuvre-de-l-objectif-11-madagascar/les-sites-ramsar/tsimembo-manambolomaty-et-mandrozo>

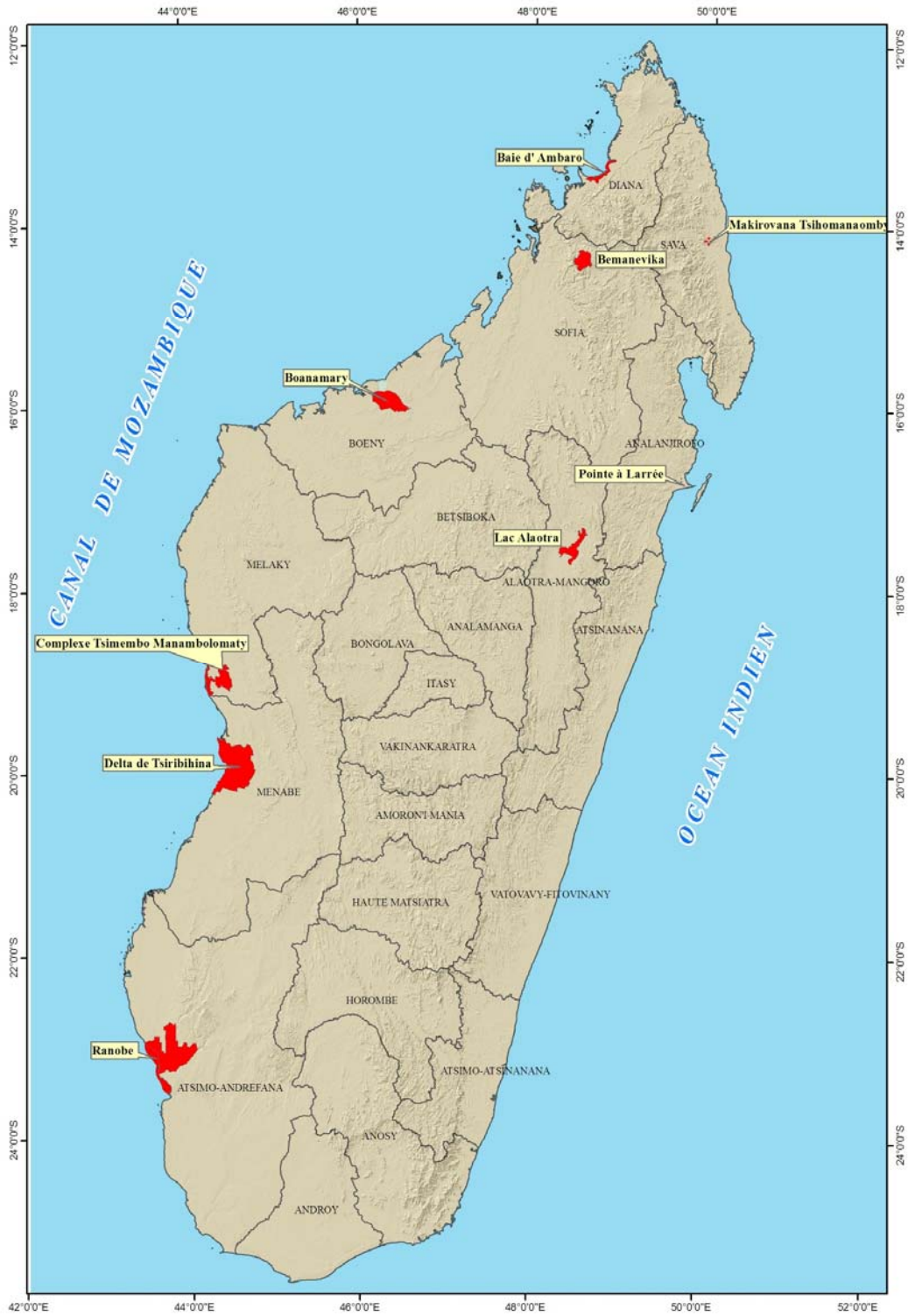
<sup>36</sup> [http://pdf.usaid.gov/pdf\\_docs/Pnads054.pdf](http://pdf.usaid.gov/pdf_docs/Pnads054.pdf)

<sup>37</sup> <http://www.projects.worldbank.org/P113976/support-madagascars-foundation-protected-areas-biodiversity?lang=en>

<sup>38</sup> <https://www.thegef.org/project/support-madagascar-foundation-protected-areas-and-biodiversity-through-additional-financing->

<sup>39</sup> <http://www.fapbm.org/> and <http://www.afd.fr/webdav/site/afd/shared/PUBLICATIONS/THEMATIQUES/AFD-aires-protégees-VA.pdf>

Location



**FIGURE 1: MAP OF THE LOCATION OF THE 9 SITES IN MADAGASCAR**



**TABLE 6: OVERVIEW INFORMATION ON THE 9 SITES**

<p><b>Bemanevika Protected Area</b> (part of the CAPAM (Ambohimirahavavy / Marivorahona) PA Complex)</p> <ul style="list-style-type: none"> <li>• <b>Classification:</b> Category V - Harmonious landscape</li> <li>• <b>Status:</b> Temporary protection, and has significantly progressed towards achieving permanent status</li> <li>• <b>Size:</b> 36,500 hectares</li> <li>• <b>Budget:</b> ~ 90,000 USD/yr</li> <li>• <b>Principal manager:</b> TPF</li> <li>• <b>Special designations:</b> AZE and KBA site; Rio Convention of 1992 (CDB); Algier Convention 1968 or African Convention on Nature and Natural Resources Conservation; Important Wetland; a refuge for many endangered endemic species</li> </ul>			
Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors
<ul style="list-style-type: none"> <li>- Home to 15 threatened species (2 CR, 5 EN, 8 CR)</li> <li>- Priority species: <i>Aythya innotata</i> and 2 other waterfowl (<i>Anas melleri</i> and <i>Tachybaptus pelzelinii</i>), the marsh bird <i>Circus macroscleles</i>, the chameleon <i>Calumma hafahafa</i>, and the community of lemurs</li> <li>- Priority habitats: Rainforest, marshes and swamps, lakes and savannah</li> <li>- Area is characterized by topographic heterogeneity with altitudes ranging from 510 m to 2,100 m.</li> <li>- Functions as a water tower, with three primary watersheds: tributaries of Sandrakota river in the north and west; tributaries of the Maevarano river in the south and southeast</li> <li>- Mosaic of ecosystems including forests, savannah, lakes, and marshes</li> </ul>	<p>The three primary threats are bush fires (often caused by clearance of vegetation for pasture or agriculture), illegal and unsustainable exploitation of natural resources, and land clearance. Harvesting of timber and other forest products also contributes to the progressive destruction of forest ecosystems. Underlying these threats are the need for agricultural land, nutritional needs, and the lure of easy profits from unsustainable resource extraction, as well as a lack of education and leadership in the environmental and biodiversity fields.</p>	<p>Barriers to conserving natural habitat and ensuring the sustainable use of natural resources at the site include a lack of capacity and authority for the PA managers; the fact that local communities do not see conservation as a high priority and do not understand the extent of the impacts of unsustainable use; lack of management and organizational capacities among local communities; the absence of any government technical departments working in the area; the fact that Dinas (local collective agreements) are not widely recognized and therefore not enforced, and the logistical challenges of working in a very remote area.</p>	<p>The Peregrine Fund is undertaking activities in the area, including: monitoring conservation targets, carrying out targeted communication and awareness campaigns, developing nature clubs and steering committees, promoting environmental modules in educational institutions, identifying the values of resources within the PA, improving visitor services and ecotourism programs, and developing partnerships with the private sector. The Durrell Wildlife Conservation Trust is working to preserve the Pochard (<i>Aythya innotata</i>) through captive breeding. Other organizations with programs in the area include the Wildfowl &amp; Wetlands Trust, Asity Madagascar, and FIMAKA.</p>
<p><b>Lac Alaotra Protected Area</b></p> <ul style="list-style-type: none"> <li>• <b>Classification:</b> Category V - Harmonious landscape</li> <li>• <b>Status:</b> Temporary protection, and has significantly progressed towards achieving permanent status</li> <li>• <b>Size:</b> 42,478 hectares (Note: Even if permanent protection is granted, the area of the PA will be delimited again because the current boundaries adopted in 2005 must be updated due to developments at the site)</li> <li>• <b>Budget:</b> 70,000 USD/yr (Durrell)</li> <li>• <b>Principal manager:</b> Durrell</li> <li>• <b>Special Designations:</b> RAMSAR Site, ZCB, AZE, ZICO Site, Convention on Biodiversity (CDB), CITES, Nairobi Convention, Algiers Convention, and the Agreement on migrating waterfowls of Africa Eurasia</li> </ul>			
Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors

<p>The Lac Alaotra site consists of the lake with an average depth of 1.5 to 2m and covering 20,000 ha, a marsh area referred to as "Zetra" (dominated by Cypéraceas family and other species) covering 30,000 ha, and areas of meadows, rainforest, and rice production. The Zetra marsh vegetation forms a unique habitat for biodiversity such as reed lemurs or "Bandro" and many freshwater bird species. The marshes also play an important ecological and economic role as a water reservoir, fish spawning area, and a natural barrier to protect the lake from siltation due to the erosion of the surrounding watersheds. Meadows constitute the largest part of Alaotra catchment area, and consist of two distinct subgroups: grazing grasslands (bozaka), and grassy bushes and ferns on siliceous soils. Rainforests are found in the Southeastern part of the basin. The site is home to critically endangered species restricted to the lake including: Bandro (<i>Hapalemur alaotrensis</i>) and Vivin' Alaotra (<i>Tachybaptus rufolavatus</i>). Significant endemic species include: Angaka (<i>Anas melleri</i>), Damanona (<i>Thalasornis leuconatus</i>), and <i>Rallus madagascariensis</i>. The site is also home to rare species of native fish such as: Fony gasy or Marakely (<i>Paratilapia polleni</i>), Katrana (<i>Rheocles alaotrensis</i>), Zono (<i>Rheocles sikaurae</i>), Menazipo (<i>Aurecleus alaotrensis</i>) and Toho or Sondry (<i>Gobuis aenofusus</i>). Nine mammal species are identified in the Alaotra marshes: two primates - <i>Hapalemur alaotrensis</i>, (endemic to the region) and <i>Microcebus rufus</i>; two carnivores - <i>Viverricula indica</i> and <i>Salanoia concolor</i>; two rodents - <i>brachyuromys betsileonsis</i> and <i>Rattus rattus</i> ; and two Insectivores - <i>Suncus murinus</i> and <i>Microgalus cowani</i>. 72 species of birds are found at the site, of which around 50 species are permanent residents at the site, including the endangered <i>Tachybaptus rufolavatus</i>.</p>	<p>The primary threats to Lac Alaotra are invasive plants (<i>Eichhornia crassipes</i>, <i>Salvinia sp</i>), overfishing and illegal fishing, illegal hunting of birds, conversion of marshes into rice fields, and sedimentation. The expansion of rice fields into Zetra areas is of particular concern; since 2007, approximately 1,250 hectares of Zetra marshlands have been converted into rice fields. Despite control measures and awareness campaigns by various parties (Districts, DREEF, DRPêche, Gendarmerie, Durrell WCT, Communes, Fokontany, CFL, and VOI), these problems are persisting and worsening, in part because of the difficult socio-political situation in the country since 2009. Over fishing has resulted in declining fisheries production, and many fishermen operate without licenses and use illegal equipment and practices (in terms of net mesh sizes, types of traps, etc.). Another significant threat is the drying up of streams: since 2007, the number of streams has declined from 32 to 6.</p>	<p>The management and protection of Lake Alaotra PA is becoming more complicated due to the socio-economic context of the region, which is causing the often landless and impoverished local population to depend more on natural resources. One result is that local people frequently remove the boundary markers of the PA site in order to convert more Zetra into rice fields. In addition, the acquisition of illegal land titles, primarily by wealthy and/or politically influential persons, has become more widespread. Land acquisition procedures are poorly understood by the public; when authorities conduct site visits to assess land acquisition requests, applicants take those visits as de facto approval of their claims. Another barrier is the failure of local community associations to guide land management, due to unclear authority, insufficient training, and lack of capacity for monitoring. The role of community associations is further constrained by the trend of establishing "fake" associations that represent external interests who want to convert more of the landscape to rice production, which has also led to increased social conflicts in the area. Conflicting priorities are also a problem; some residents and resource managers believe that Madagascar is going through a crisis and expanded rice fields, fishing and hunting will help people overcome the crisis, while others believe that these activities quickly degrade Lac Alaotra's ecosystems services to the detriment of all. Enforcement of existing laws and regulations is also weak, and most lawsuits that have been filed regarding illegal land clearance, hunting and setting of fires have not been successfully prosecuted, which reduces the motivation and morale of enforcement officers, gives a sense of impunity to lawbreakers, and encourages others to engage in these activities. As a</p>	<p>Numerous organizations are active at this site, including: DWCT, JICA, Alaotra Rano Soa, MWC; Ile et Vilaine; ANAE; JICA; CASTELLES; Madagascar ANDRIKOTAFANA (Tany sy Fampandrosoana); BVPI Lake; AVSF; BRL; and SDMAD. Among the many programs in place are the following: awareness raising and capacity building through the organization of community meetings; promotion of cultural and traditional management arrangements and of events that strengthen social cohesion and cultural value; production of educational tools adapted to the local context; installation of the Alaotra Rano Soa structure; strengthening of law enforcement through the Dina; promotion of socio-economic activities (e.g. agricultural conservation techniques) that improve community incomes and welfare and diversification of livelihood activities; control and monitoring actions for the Lac Alaotra NPA.</p>
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		result, social conflict has increased, and community members who patrol the PA are being threatened.	
<b>Makirovana-Tsihomanaomby Forest Complex Protected Area</b> <ul style="list-style-type: none"> <li>• <b>Classification:</b> Category VI - Natural Resources Reserve</li> <li>• <b>Status:</b> Temporary protection, and has started process towards achieving permanent status</li> <li>• <b>Size:</b> 3,397 hectares</li> <li>• <b>Budget:</b> ~ 157,500 USD/yr</li> <li>• <b>Principal manager:</b> MBG</li> <li>• <b>Special Designations:</b> None</li> </ul>			
<b>Biodiversity Values</b>	<b>Threats / Pressures</b>	<b>Barriers</b>	<b>Main Activities By Actors</b>
<p>The site is characterized by three primary vegetation zones - Lowland Rainforest, Mid-Altitude Rainforest, and Saxicole formation. There are 37 threatened species (3 CR, 15 EN, and 19 VU) at the site, including significant species of endangered flora (<i>Tsebonama cracantha</i>, <i>Dypsis tsaravoasira</i>) and diurnal lemurs (important forest seed dispersers). The site contains 283 species of plants, including the recently discovered species <i>Brexiella</i> sp nov (Celastraceae) and <i>Croton</i> sp nov (Euphorbiaceae). Flora in the Tsihomanaomby complex includes 3 families endemic to Madagascar: 1) Asteropeiaceae represented by two species: <i>Asteropeia amblyocarpa</i> and <i>A. rhopaloides</i>; 2) Sarcolaenaceae represented by five species: <i>Perrrierodendron capuronii</i>, <i>Rhodolaena macrocarpa</i>, <i>Sarcolaena multiflora</i>, <i>Schizolaena rosea</i> and <i>Xyloolaena richardii</i>; and 3) Spaerosepalaceae represented by four species: <i>Rhopalocarpus excelsus</i>, <i>R. longipetiolatus</i>, <i>R. randrianaivoii</i>, and <i>R. binerius</i>. The sites also harbours 18 species of mammals, including 7 lemurs <i>Cheirogaleus crossleyi</i>, <i>Cheirogaleus major</i>, <i>Microcebus rufus</i>, <i>Avahi laniger</i>, <i>Eulemur coronatus</i>, <i>Eulemur sanfordi</i>, and <i>Hapalemur griseus</i>, 33 species of reptiles, 30 species of amphibians, and 89 species of birds, including the endangered species (<i>Tyto soumagnei</i>), four vulnerable species (<i>Accipiter henstii</i>, <i>Brachypteracias leptosomus</i>, <i>Hypositta corallirostris</i>, <i>Pseudocossyphus sharpei</i>), and a nearly threatened species (<i>Lophotibis cristata</i>).</p>	<p>Significant threats at the sites include the transformation of natural forest into vanilla and clove plantations, bush fires, slash-and-burn cultivation, selective logging, harvesting of hardwood roots (for medicinal products), harvesting of bark (for alcohol production), collecting of Pandanus, coal mining, and the hunting and trapping of wild animals (with lemurs being a primary target of wildlife hunters).</p>	<p>Insufficient monitoring and enforcement capacities (in terms of personnel, maps, etc.) are allowing land clearing and illegal logging to persist even within the NPA boundaries. In addition, the boundaries of the NPA are not yet clear to the population because of inadequate boundary signage, which contributes to illegal logging. Although Dina (customary agreements) have been established, these are not enforced, and community organizations still lack organizational and management capacities to monitor and enforce Dinas or to even carry out basic organizational management functions.</p>	<p>Numerous organizations are active at this site, including: Missouri Botanical Garden (MBG), grassroots communities in Ravimaitso and Alakitsoka, ONN Seecaline, Medecin du Monde, FID, PSDR, PMPS, OTIV, CIRAGRI, OCPG, FMAA, FEDA, Tsarajoro and Samiravo, Soa MIavotena, Groupement Tsiry/Promabio, SAF FJKM, and the Peace Corps. Among other activities, these organizations support: formation and training for community organizations and forest guards; training in Dina enforcement; research and monitoring of conservation targets; and awareness campaigns.</p>
<b>Ranobe / PK32 Protected Area</b>			

- **Classification:** Category VI, Natural Resources Reserve
- **Status:** Temporary protection, and has significantly progressed towards achieving permanent status
- **Size:** 148,500 hectares (Note: Even if permanent protection is granted, the area of the PA will be delimited again because the current boundaries adopted in 2005 must be updated due to developments at the site)
- **Budget:** 100,000 USD/yr (WWF)
- **Principal manager:** DREEF Atsimo Andrefana
- **Special Designations:** None

Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors
<p>Priority habitats within the site include: Spiny thickets on red sand, Spiny thickets on limestone, Forest galleries, and Wetlands (lakes and marshes). Priority species for conservation include: the mouse lemur (<i>Mirza</i> sp.) and various diurnal lemurs (<i>Verreaux's sifaka</i>, <i>Lemur catta</i>, and <i>Eulemur rufifrons</i>), the long-tailed terrestrial rollier (<i>Uratelornis chimaera</i>) and Monias Bench (<i>Monias benschi</i>), the pinstripe mongoose (<i>Mungotictis decemlineata lineata</i>), and various threatened reptiles. Overall, there are 8 threatened species (1 CR and 7 VU) within the site. Forests within this site provide a number of ecosystem services, including: carbon sequestration (research conducted by CIRAD in 2012 found that the carbon stocks in the PA range from 6 to 62 Mg/ha); soil stabilization and preventing erosion during the rainy season; pollination services (locally important crops such as beans, peanuts, and fruit trees rely on insects for pollination); and recreation services (for local people but also for tourists and visitors from elsewhere)</p>	<p>Agricultural clearing or <i>hatsake</i> is becoming increasingly problematic at the sites, particularly as the high level of forest degradation in this region is pushing farmers onto the most fertile lands of the PA. Charcoal production for nearby urban markets (i.e. the city of Toliara) is another key threat. Expansion of cotton plantations is another significant threat and may undermine an already fragile food security situation and push the local population to resort to harvesting resources from the PA. Mining projects such as the Toliara Sands Project and road construction also threaten natural ecosystems at the site. Other threats include selective logging, hunting and poaching, and uncontrolled fires.</p>	<p>The Ranobe / PK32 PA currently has no active management structure; WWF previously managed the area but has now withdrawn, and no new management is in place as yet. Other challenges include pressure from large financial interests including mining and cotton plantations; significant poverty in the region and an influx of migrants who resort to illegal logging; and limited capacities for enforcement of laws and regulations.</p>	<p>A number of organizations have been active at this site, including: DREEF Atsimo Andrefana, Toliary Sands Project, Priaso, PGM-E/GIZ, and eight local development units. At present, there is little management or conservation-related activity at the PA site; DREEF is officially in charge of the site at this time but is waiting for new managers to take up their posts.</p>

- Pointe à Larrée Special Reserve**
- **Classification:** Category IV
  - **Status:** Permanent protection (as of May 2015). Note: the current area of the PAL Special Reserve is 770 ha. However, an additional 2,107 hectares has been proposed as a Zone of Sustainable Use (ZUD), to be managed jointly by MGB and four local communities (COBAs), to be added to the PAL Protected Area in the future. Thus, this project will expand the existing PAL PA to 2,877 ha.
  - **Size:** 2,877 ha
  - **Budget:** 46,000 USD/yr
  - **Principal manager:** MBG
  - **Special Designations:** None

Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors
<p>More than 90% of the Pointe à Larrée PA consists of coastal forest and the majority of the site's faunal</p>	<p>Logging is a significant problem throughout the PA site. Although</p>	<p>Currently, the NPA has a strict conservation status and four dynamic and active COBAs</p>	<p>The Missouri Botanical Garden (MBG) and four communities are leading</p>

<p>and floral biodiversity is found in this ecosystem. The sites also contains swamp forests that are remarkable for their ecological conditions that favour diverse species that are able to adapt to extreme conditions such as drought or floods. Unfortunately, approximately 95% of the swamp forest has now been converted to rice fields. Two regional endemic species of the Analanjirofo region, <i>Satranala decussilvae</i> CR and <i>Dypsis sanctaemariae</i> EN, live respectively in the lowland forests and the swampy forests. The lemur (<i>Eulemur fulvus</i>) or varikosy is the most abundant lemur species in the area and an indicator of the forest health condition, as well as being important for tourism development. Overall, there are 39 threatened species in the site (1 CR, 20 EN, 18 VU).</p>	<p>community plans typically restrict logging to building of canoes that are widely used to travel between villages, and for local use in construction and furniture making, in fact unrestrained commercial logging as well as charcoal production is widespread. Another threat comes from bush fires, primarily due to land clearance for crops and pasture. Conversion of forests to croplands is also common after forests have been logged or burned for charcoal. Illegal mining for quartz is common in the hills, and at least one company is now prospecting for mining sites in the coastal forest. Poaching of lemurs and birds (e.g. Crested Ibis Madagascar and wild ducks) poses a threat to the target species. Flooding and high soil temperatures are a threat to crop production, particularly lowland rice cultivation.</p>	<p>(community groups) are working with MBG in conservation activities in the core zones, such as fighting fires. However, there is conflict between MBG and the Canton officials, who are advocating for logging within the sites. Public opinion surveys and observation in the Analanjirofo region indicate that many residents care little about the importance of the site for conservation and instead support wood harvesting. However, the remaining forest in the core zone is critical for the livelihoods of inhabitants in that area, and increased awareness activities need to be carried out to generate additional support for conservation. Furthermore, the DREEF needs to be strengthened and to re-align its priorities to better coordinate with the MBG.</p>	<p>conservation and sustainable development activities at the site. These include: construction of dams to support irrigation by subsistence farmers (thereby reducing pressure on natural resources); strengthening of crop products (since 2011, the Antsika Samy cooperative, supported by the Missouri Botanical Garden, has implemented a project to relaunch the clove industry); a compensation program for PAPs (Persons Affected by the Project) in terms of conservation contracts; participatory development (with ILCs) of environmental and social management plans. MBG has also constructed buildings for the Tanamabao-Ambodimanga primary school.</p>
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**Ambaro Bay (+ mangrove of Ankarea MPA)**

- **Classification:** Sensitive site with multiple governances and programs
- **Status:** Includes a complex of mangroves, some of which lie within a temporary NPA
- **Size:** 45,680 hectares
- **Budget:**
- **Principal Manager:** DREEF Diana et DRRHP Diana
- **Special Designations:** Sensitive Zone because of the existing corals near the Ankarea MPA

<b>Biodiversity Values</b>	<b>Threats / Pressures</b>	<b>Barriers</b>	<b>Main Activities By Actors</b>
<p>The site has five primary types of vegetation: forest formations, savannahs, alluvial vegetation, flooding areas, and mangroves. Eight species of mangroves can be seen in the Bay, namely: <i>Rhizophora mucronata</i> (anabovahitra), <i>Bruguiera gymnorrhiza</i> (tsitoloiny), <i>Ceriops tagal</i> (honko), <i>Rhizophora mucronata</i>, <i>Avicennia marina</i> (mosotry), <i>Sonneratia alba</i> (farafaka), <i>Lumnitziera racemosa</i> (vonjihonko), <i>Xylocarpus granatum</i> (latakaloatra), and <i>Avicennia marina</i>. Numerous species rely on mangrove habitat, including the nesting bird mireha (<i>Anas bernieri</i>), various mollusks (bivalves and gastropods),</p>	<p>7,659 ha (23.7%) of mangroves in the Ambaro site have been lost (Jones et al., 2014.), primarily due to harvesting for charcoal to supply nearby urban areas. Illegal logging is made easier because of remoteness and difficulty in monitoring the sites. Harvesting is mostly illegal and uses sophisticated materials like speedboats and guns to scare local wardens. To a large extent, illegal activities are conducted by seasonal migrants, but also by community members. Overfishing is another</p>	<p>Mangrove management is poorly coordinated and the Ambaro area does not have a common management plan incorporating conservation and sustainable use of fishery products that is accepted by all stakeholders. Government programs and NGOs conduct activities according to their own mission and sometimes these activities produce conflicts with local residents and organizations. Improved coordination is necessary to curb illegal charcoal harvesting because of the sophisticated operations of illegal operators.</p>	<p>Numerous organizations are active at this site. DREEF is responsible for coordination, controls, and monitoring with the 3 cantonments, while DRRHP manages fisheries resources. WCS is the manager of the Ankarea MPA. WWF works on CC resilience and adaption activities and green energy, while Blue Ventures works on carbon and crab projects. CRADES participates in capacity-building and awareness of the COBAS; training and</p>

<p>crustaceans (Cirripedia, Shrimp) decapod crabs, and Brachyura. 41 species of fish, divided into 27 families, have been recorded in the area, as have 15 species of birds. The mangroves also provide important ecosystem services, including carbon sequestration (147Mg/ha of carbon in the vegetation and 446 Mg/ha in the soils) and as critical habitat for juvenile fish.</p>	<p>significant threat; Ambaro Bay is one of the most important shrimp fishing centers of Madagascar, but stocks are declining due to the collection of young shrimp using small-meshed nets (up to 40% of the catch is estimated to be by illegal nets). In addition, social conflicts often occur between traditional and industrial fishermen, and also between natives and migrants. Land-based pollution affects coastal areas by erosion of watersheds and the degradation of downstream mangrove ecosystems. Pollution from livestock and agriculture, hydrocarbons from ship traffic, persistent organic pollutants, and nutrients, are also a threat. Seawater intrusion into the land is increasing with the disappearance of coastal vegetation. Offshore oil drilling is a potentially large threat; two companies are currently exploring for deposits, and the Ambilobe oil block covers the whole site of the Ankarea MPA and more broadly the surrounding waters. The region is particularly vulnerable to CC impacts such as sea warming, shorter and more intense rainy seasons, increased erosion and sedimentation in the mangroves, longer periods of strong winds along the coast, and more cyclones. With the widespread destruction of mangroves, the protective belt that protects the coasts from storm surge impacts is being lost.</p>	<p>For example, even the Ambanja cantonment team does not dare to patrol in some areas without help from the DREEF. Local management is not yet officially recognized; so that although the villages in the area all have local management regulations (or Dinas.), these Dinas are not recognized by the local authorities, and as a result the villagers cannot enforce them and act accordingly against the offenders. Legislation on mangrove protection exists, such as the law on forests 97-1200 and the recent ministerial decree 32100/2014, and the designation of the Ambaro Bay complex as a "sensitive zone" to protect its shrimp spawning function, but rules and existing laws are not respected and barely followed. Furthermore, authority overlap exists between decentralized local authorities and the concerned ministries regarding management of coastal resources located at the land-sea interface; which only delays the conservation and development actions. Most community organizations need stronger management skills and more participatory structures, and mechanisms to support the exchange of knowledge and experiences among organizations. Public understanding and appreciation of the environmental and economic value of coastal ecosystems and the benefits derived from sustainable management remains low.</p>	<p>sensitization of the coastal population; reforestation of rapid-growing green charcoal (eg. <i>Eucalyptus</i>); market gardening,; identification of new rice field and irrigation systems; development of a coal miners' association (to encourage them in green reforestation); and control and enforcement in collaboration with local communities and other stakeholders (Ambanja Cantonment, Police and Gendarme). GIZ has funded many activities in support of management transfers and reforestation operations in the Ambaro Bay communes; PSDR is also working on these issues. GOTA is promoting the use of green stoves, and reforestation is being done by different stakeholders, including: CLB, Blue Ventures, CRADES, and the Cantonments of Ambilobe, Nosy-Be and Ambanja. Finally, other partners include MNP, ROSEDA, PFED, CNRO, OSCE DIANA, and over 72 grassroots communities.</p>
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**Tsimembo-Manambolomaty Complex Protected Area and Micro-Mangrove in Masoarivo**

- **Classification:** None
- **Status:** No protected area yet
- **Size:** 62,754 ha (including 6,824 ha of mangroves) (Note: In addition to working in the Masoarivo micro-mangrove, the project will also integrate the terrestrial ecosystems of the Tsimembo /Manambolomaty PA ,since the sustainability of the mangrove depends on the integrity of those ecosystems)
- **Budget:** ~ 85,000 USD/yr
- **Principal manager:** TPF
- **Special Designations:** Andranobe Ramsar site; Zico site

<b>Biodiversity Values</b>	<b>Threats / Pressures</b>	<b>Barriers</b>	<b>Main Activities By Actors</b>
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<p>This site has a variety of habitat types, including the dry deciduous forests of Tsimembo, the mangroves of Besara-Masoarivo, and the lakes, ponds and streams of Manambolomaty. This site is home to over 50 species of waterfowl and a number of endemic endangered species including: the Madagascar Fish Eagle, (<i>Haliaeetus vociferoides</i>; CR), <i>Anas bernierii</i> (EN), <i>Ardea humbloti</i> (EN), <i>Ardeola idae</i> (EN), and <i>Charadrius thoracicus</i> (VU). The vegetation around the lakes and mangroves is home to more than ten pairs of Madagascar Fish Eagles, which represents 10% of the entire population of this species. It is also a nesting site of for colonies of water birds, including Bernier's Teal (<i>Anas bernieri</i>), and habitat for the Madagascar Flying Fox (<i>Pteropus rufus</i>). Several mangrove species are found at the site: <i>Honkovavy</i> (<i>Ceriops tagal</i>), <i>Honkolahy</i> (<i>Rhizophora mucronata</i>), <i>Afiaty</i> (<i>Avicennia marina</i>), and <i>Tangapoly</i> (<i>Briguera gymnorhiza</i>). Overall, there are 16 threatened species at the site (2 CR, 8 EN, 6 VU). The natural ecosystems of the site provide important ecosystem services, including: forests that stabilize soils against erosion, maintain soil fertility, secure water supplies for humans and animals, provide honey, medicinal plants and wood, and protect downstream areas from flooding; mangrove forests that protect the coast from marine erosive action; wetlands that support migratory birds; and lakes that provide water and fisheries. In addition, all of these ecosystems contribute to carbon sequestration.</p>	<p>Deciduous and mangrove forests are threatened by harvesting for charcoal and wood (mangroves are decreasing in area by 40 ha/year), land clearance for maize and cassava cultivation, bush fires, uncontrolled cattle grazing, and slash-and-burn practices. Fisheries resources are threatened by the use of improper fishing gear (e.g. small-meshed nets and nets with heavy leads), unsustainable fishing pressure, and contravention of traditional seasons for fishing (loadrano), particularly by migrants. In addition, lake and stream ecosystems are threatened by siltation caused by unsustainable grazing practices and logging. Legal and illegal hunting for food consumption and for market sales threatens a number of species. Many of the above-mentioned problems are exacerbated by the high levels of migration into the area in the past two decades, which has put immense pressure on natural resources and created conflicts between natives and migrants, aggravated by non-compliance with traditional regulations.</p>	<p>Among the barriers to effective conservation and sustainable use of ecosystem resources at this site is the low level of understanding among the local population of resource management structures and regulations. This is due in part to very high levels of illiteracy among local residents, which contributes to the circulation of misinformation among these populations, and blocks participatory management processes from gaining traction. Women in particular have very low levels of participation in management and decision-making, including for the PA site. In addition, the lack of material and logistical resources available to the governmental services constrains conservation and development projects in the region. For example, community associations do not have enough equipment for proper monitoring and control, and although the soils in this area are highly fertile, a lack of agricultural infrastructure and technical leadership has prevented local populations and resource managers from establishing efficient and sustainable agricultural production systems, and as a result food shortages are common during the dry season.</p>	<p>Several organizations are active at this site, including: TPF, DWCT, and six community-based associations: FiZaMi, FiFaMa, SAMAKA, SOAFANIRY, FIBETSI, and FIFAFAMA. Together, these organizations have undertaken conservation and resource management activities on: afforestation and reforestation; mangrove restoration; donation of fishing nets and canoes; control and monitoring of fishery products; installation of modern smokehouses; various income-generating activities (beekeeping, orange tree plantations, etc.); and capacity building of local communities in socio-economic monitoring, village mobilization, etc. These partners have also supported more general development programs, such as rehabilitation of four schools, construction of six well, and grants to teachers.</p>
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**Boanamaro Micro-Mangrove (part of the Bombetoka / Belomboka PA)**

- **Classification:** Sensitive site and AP-Category VI, Sustainable use of natural resources
- **Status:** No protected area
- **Size:** 5,673 hectares
- **Budget:** 75,000 USD/yr (FEEM)
- **Principal Manager:** DREEF Boeny et DRRHP Boeny
- **Special Designations:** ZICO

Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors
<p>The Boanamaro Micro-Mangrove site is part of the Bombetoka/Belomboka PA. The site primarily consists of coastal mangrove ecosystems made up of six species: <i>Avicennia marina</i> (widespread), <i>Ceriops</i></p>	<p>The mangroves at this site are subject to numerous threats. Harvesting for charcoal production is perhaps the most important problem, particularly on the three islets of</p>	<p>Among the most important barriers to effective conservation and sustainable management of the mangrove ecosystems at this site is the ineffective enforcement of regulations.</p>	<p>A number of organizations are active at this site, including: DREEF Boeny (control and monitoring activities); the Mahajanga II Cantonment</p>

<p>Tagalog, <i>Rhizophora mucronata</i>, <i>Sonneratia alba</i>, <i>Xylocarpus granatum</i>, <i>Lumnitzera racemosa</i>, and a small area of <i>Heritiera littoralis</i>. The site harbours 20 threatened species (3 CR 10 EN 7 VU), consisting of 6 bird, 3 lemur, 9 fish, and 2 plant species. Among the most well known animals are the Ankoay and two lemurs (<i>Propithecus coquerelii</i> and <i>P. coronatus</i>). The mangroves provide a variety of ecosystem services, including: medicinal plants, timber, and firewood; habitat and ecological niches for native species; support for fish stocks; and a barrier against winds and cyclones.</p>	<p>Boanamary, Ambatomalama and Morahariva. Mangroves are also harvested for timber, as mangrove wood is highly valued because of its hardness that repels insects and also its use in the manufacture of cooking pots and handling irons. While local loggers can be controlled to some degree by community organizations, those from outside are very difficult to control. Around 500 people are dependent on fisheries, but most violate the fishing seasons (Rabarison, 2014, com. Pers.), and the ever-growing population attracted by the easy accessibility of resources, combined with high unemployment, has put high pressure on fishery resources, which are now in decline. Cattle also graze the mangroves in the dry season when grasses are scarce, and constrain mangrove growth. Climate change is believed to be responsible for reduced flows of streams and rivers leading to hyper salinity in certain areas that can affect the survival of mangroves. Erosion from upstream areas has increased in recent years with the arrival of Chinese immigrants who are engaged in mining and other infrastructure activities that are causing landslides and sedimentation of mangroves and declines in fish stocks. Underlying the high demand on natural resources at the site is the very high unemployment in the region, the easy access to mangrove sites, and the high prices for mangrove wood and for fish due to the high demand from the cities of Mahajanga and Belobaka, which together have an estimated population of over 250,000 inhabitants.</p>	<p>Problems with enforcement stem from inadequate equipment, means of transportation, and staff; but also from corruption among local officials, particularly related to the charcoal production sector. Mangrove management also suffers from the inadequate delimitation of working areas for various management stakeholders, who frequently duplicate efforts or sometimes even work at cross-purposes. The lack of clear development plans and technical capacities for reforestation and other environmental restoration have constrained efforts to restore mangrove ecosystems; more generally, key stakeholders (VOI, CTD, Cantonment, and DREF) have insufficient training and capacity in management. Inadequate understanding of the population dynamics and ecosystem services of mangroves inhibits effective management as well as efforts to generate public and policy maker support for mangrove conservation. Many people in the region have limited awareness of problems associated with mangroves, a problem exacerbated by the fact that the region has become a melting pot of people from elsewhere whose overriding interest is in earning money. Finally, the lack of alternative livelihood options for most of the residents in mangrove areas constrains efforts to reduce their use of mangrove resources.</p>	<p>(reforestation and monitoring); FEEM (reforestation and promotion of silk worms); PGM-E/GIZ (support to communities in reforestation and beekeeping); AIDEM (research and conservation of endangered species); and DRRHP (management of fishery products).</p>
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**Morondava Micro-Mangrove and its surroundings**

- **Classification:** Sensitive zone, part of which is included in the coastal zone of the Menabe Antimena PA
- **Status:** No protected area
- **Size:** 7,000 hectares (Note: The selected area is now between the Morondava and Tsiribihina deltas)



- **Budget:**
- **Principal Manager:** DREEF Menabe
- **Special Designations:** Sensitive zone / Hotspot

Biodiversity Values	Threats / Pressures	Barriers	Main Activities By Actors
<p>Eight species of mangroves are found at the site: <i>Avicennia marina</i>, <i>Xylocarpus granatum</i>, <i>Heritiera littoralis</i>, <i>Lumnitzera racemosa</i>, <i>Sonneratia alba</i>, <i>Bruguiera gymnorrhiza</i>, <i>Ceriops tagal</i>, and <i>Rhizophora mucronata</i>. The mangroves at this site harbor 39 species of fish; 41 species of birds, including <i>Alcedo vintsioides</i> (Vintsy), <i>Haliaetus vociferoides</i> (Ankoay), and <i>Foudia madagascariensis</i> (Fitily); a variety of mammals including <i>Felis sylvestrus</i> (Kary), <i>Viverricula indica</i> (Adrao), <i>Propithecus</i>, <i>Pteropus rufus</i> (Fanihy) and <i>Potamochoerus larvatus</i> (Lambo); and various reptiles such as <i>Crocodilus niloticus</i> (Voay), <i>Acranthophis madagascariensis</i> (Do), <i>Madagascarophis colibrinus</i> (Lampatra), and <i>Liopholidophis lateralis</i> (Marolongo). Mangroves provide important ecological services; located between the interface of marine and terrestrial environments, they collect sediments and thereby protect adjacent seagrass beds and coral reefs against siltation and eutrophication. Mangroves also protect against coastal erosion by reducing the energy of the tides and waves; provide habitat for native species and fish stocks; and sequester carbon. Mangroves are also valuable hardwood species used for local construction and crafts.</p>	<p>Land clearance for agriculture is an important threat affecting mangroves, dense dry forests, the Kimanaomby lake area, and the Tsiribihina River Delta (primarily to expand rice cultivation). Illegal logging to supply urban markets is also significant, and forest fires are a problem in the dense dry forest ecosystems. Hunting poses a threat to terrestrial and aquatic animals (birds, lemurs, etc.) throughout the area. Unsustainable fishing practices, including overuse of some fishing sites by seasonal migrants, and the use of prohibited equipment and practices (e.g. using the toxic plant <i>Euphorbia laro</i>) constitute a significant threat not just to target fish species but all aquatic fauna. The expansion of aquaculture ponds has also destroyed aquatic habitats. Cyclones typically cause severe mangrove destruction (uprooting of trees), silting of channels, and bank erosion. Underlying these problems are high rates of migration into the area itself and into surrounding urban areas (which increases demand for natural resources), as well as the decline of other economic sectors in the region (e.g. small industrial production).</p>	<p>A number of governance and institutional barriers are preventing effective conservation and management of the natural resources at the site. A lack of agreement about the territorial boundaries between some Fokontany (sub-communes) has created confusion and conflict regarding control of natural resources and traditional rights of access, particularly regarding timber and non-timber resources in the dry deciduous forests and mangroves. Because of its proximity to Morondava city, the mangroves at the selected site are subjected to pressures related to the demands of the urban population for timber and firewood. Moreover, crises in the agricultural and livestock systems (e.g. irrigation problems for rice fields) and urban and rural unemployment have pushed many people to the coastal areas to exploit the mangrove resources.</p>	<p>Numerous organizations are active at this site, including: the Regional Committee for Development (CRD) of Menabe, which supported the creation of the Menabe Antimena NPA; the Regional Committee for Coastal Zone Integrated Management (CRGIZC); the Rural Development Working Group (GTDR), which conducts monitoring and evaluation operations with various partners including DWCT, AD2M, WWF, and FANAMBY; Louvain Development, a NGO working in partnership with the NGO SARAGNA; the AD2M Project Support to Menabe and Melaky Development; the IFAD-funded Rural Development Project that supports the improvement of rural production infrastructure (hydro agricultural, rural roads); DWCT, which is active in the protection of flagship species; the MAHERY Consortium, which is active in mangrove reforestation together with WWF and OPCI Alokaina; WWF, which currently conducts mangrove restoration operations in 11 villages; and AQUAMEN EF, GSM, and SOPEMO, which are working to develop national and international markets for fisheries.</p>

## THE GEF ALTERNATIVE

A significant number of changes have been introduced to the project Framework since the PIF, described and justified below in the table. See also Annex B: Responses to Project Reviews.

**TABLE 7: PROJECT FRAMEWORK REVISIONS**

Original Element of Logframe	Revised	Explanations of Revised Project Elements
<b>Project Objective:</b> Madagascar’s network of new PAs is effectively managed to provide enhanced protection and better representation of key ecosystems for economic and environmental benefit	<b>Project Objective:</b> Madagascar’s strengthened network of PAs provides enhanced protection and better representation of key ecosystems, and delivers economic and environmental benefits to local communities	It could be deemed unclear what “effectively managed” means. Moreover, the objective of the project given its components is not only management, but also extension of the PA network and official establishment of new PAs. In the revised version, “Strengthened network of PAs” means: a) Increased area and representativeness of ecosystems under permanent PA coverage; b) Increased protection of new PAs and existing mangrove sites (practically means decreased threats for PA biodiversity); c) Increased benefits for local communities from new PAs and mangrove sites.
<b>Component 1:</b> National protected area system strengthening (\$666,667)	<b>Component 1:</b> Improvement of PA policy and governance (\$666,667)	The wording of Original Component 1 is too broad as the component is focused primarily on strengthening PA governance and policy (overall strengthening is more applicable to the overall project).
<b>Outcome 1.1:</b> 1-1 Key-Malagasy institutions (MEEF, SAPM Commission, Inter-ministerial Committee) have the capacity to manage and support an effective network of New Protected Areas (NPA).	<b>Outcome 1.1:</b> Strengthened policy, governance, and financing frameworks for PA management, including for conservation of biodiversity and mangrove ecosystems	The wording of the Outcome has been changed to reflect the fact that the outputs and activities will not only result in increased capacity for PA governance but also in an improved policy framework for PA management.
<b>Output 1.1.1:</b> The central Ministry, PAs promoters STAFF and the technician, namely the DAPT, are trained and the services of in charge of PAs, the decentralized services (DREEF, CANFORET, TRIAGE) as well as the PAs promoters organizations are strengthened in PAs management (\$150,000)	<b>Output 1.1.1.</b> National PA agencies (DAPT, DREEF, CIREEF, CEEF, and CSAPM) have increased capacity to develop and manage the PA system (\$232,000)	<i><u>These outputs have been revised in response to the following GEF Sec comment:</u> “Would the budgets allocated to outputs 1.1.2 (\$19K), 1.1.3 (\$13K) and 1.1.5 (\$19.5K) be sufficient to achieve the objectives of the outputs? Please merge, remove or amend outputs as necessary”.</i>  The budgets for these outputs have been increased in the revised list of outputs. Previously, Outputs 1.1.1-1.1.3 were all focused on training and building of PA agencies, but the budget for Output 1.1.1 was too high while the budgets for Outputs 1.1.2 and 1.1.3 were too low. These three outputs have now been combined into a single Output 1.1.1 and with an increased total budget of \$232,000. The budget for Output 1.1.5 (now Output 1.1.3) has been increased to \$69,500.
<b>Output 1.1.2.</b> Members of the PAs Network of Madagascar for the Protected Area System (CSAPM <sup>40</sup> Commission) are trained in management and monitoring of Protected Area systems. (\$19,000)		
<b>Output 1.1.3.</b> Relevant inter-ministerial committees (Mining-Forestry, Fishery-Forestry, Forestry-Land, Forestry-Oil) and the Mangroves Commission are operational. (\$13,000)		
<b>Output 1.1.4.</b> New land and	<b>Output 1.1.2:</b> Management	<i><u>This output has been revised in response to the following GEF Sec</u></i>

<sup>40</sup> CSAPM: Madagascar Committee for the Protected Area System. It is a coordination and awareness raising mechanism for PA management. Its Forest-Mining sub-Commission focusing on resolving specific challenges related to mining, fisheries and land-use;



Original Element of Logframe	Revised	Explanations of Revised Project Elements
marine PAs (9) with promulgated permanent decrees Management Plans developed and implemented (\$315,167)	instruments for PAs and mangroves are developed, discussed with stakeholders and submitted to the Government for approval (\$75,500)	<p><i>comment: "Not clear if output 1.1.4 will result in the legal decrees and/or management plans for the 9 NPAs. If management plans, shouldn't they be under Component 2?"</i></p> <p>The previous Output 1.1.4 was worded incorrectly, as its achievement would depend not only on the project, but also on the Government of Madagascar that holds the power to approve the establishment of new PAs by government decrees. This output has been revised into two new outputs. Under the new Output 1.1.2, the project will support work to create the documents and comply with the procedures required to officially establish 6 new PA sites with permanent status (and to officially incorporate special mangrove areas into 3 existing PAs); the description of Output 1.1.2 also clarifies that the project will develop the required legal documents, but it will be a government decision to approve any final legal status for the target PA sites. Furthermore, since at present PA managers use different management tools, the project will work to standardize all PA management tools. Under the new Output 2.1.1, the project will support the development of PA management plans.</p>
<b>Output 1.1.5.</b> Monitoring and evaluation tools for impacts and management effectiveness of the PAs network are identified and implemented. (\$19,500)	<b>Output 1.1.3:</b> Monitoring and evaluation tools to measure the management effectiveness of PAs are identified and introduced to PA agencies (\$69,500)	<p><i>This output has been revised in response to the following GEF Sec comment: "Would the budgets allocated to outputs 1.1.2 (\$19K), 1.1.3 (\$13K) and 1.1.5 (\$19.5K) be sufficient to achieve the objectives of the outputs? Not clear how an investment of \$19.5K in output 1.1.5 (which appears to be the identification and implementation of M&amp;E tools), can result in an improvement of 30% in the METT at each site."</i></p> <p>The wording of the original Output 1.1.5 sounds like a mix of Output (tools are identified) and Outcome (tools are implemented). Implementation of the monitoring tools by PA agencies is beyond the project control, because official implementation of PA monitoring tools will require approval of the Government and allocation of relevant budget and staff to perform these operations. Also, the original budget for this Output was very low; this has been increased to an amount that can adequately support the development, testing and establishment of a National PA monitoring system, including training of appropriate staff.</p>
<b>Output 1.1.6.</b> The National Action Plan for mangroves conservation (including valuation of assets) is formulated and implemented. (\$150,000)	<b>Output 1.1.4.</b> National Action Plan for mangrove conservation is formulated (\$130,000)	The wording of the original Output 1.1.6 sounds like Outcome (plan is implemented). Implementation of the plan will require its approval by the Government and allocation of national funding for the implementation, which is beyond the project's control. The budget for the Output was decreased to better reflect the expected cost of developing the plan, including consultations with government and other stakeholders.
<b>Output 3.1.3.</b> The necessary legal instruments for the Protected Areas and mangroves permanent protection are drafted, enacted, and disseminated. (\$34,000)	<b>Output 1.1.5:</b> Legal and regulatory amendments to ensure permanent protection of mangroves and effective PA management are developed (\$59,667)	<p><i>This change addresses following GEF Sec comment: See that output 3.1.3 also talks about legal instruments. Please re-organize the outputs and budgets. Output 3.1.3 is about legal Instruments. Does this belong to Component 1?</i></p> <p>Output 3.1.3 is now Output 1.1.5, and the funding level has been increased to account for expected costs.</p>
<b>Output 3.1.2.</b> Strategy for funding all NAPs is drafted (\$56,000)	<b>Output 1.1.6:</b> Funding Strategy for New PAs is developed (\$100,000)	This output is more appropriate placed in Component 1 (policy). It was rephrased slightly to show that it is not just a draft paper, but rather a draft of an official National Strategy that is effective on approval from the Government. In addition, the funding level has been increased to account for expected costs.

Original Element of Logframe	Revised	Explanations of Revised Project Elements
<b>Component 2.</b> Demonstrating and rolling out effective protected area management, including at important mangrove sites and PAs (\$2,705,014)	<b>Component 2:</b> Effective management of new PAs and critical mangrove sites (in existing PAs) (\$2,775,014)	The Component name has been revised.
<b>Outcome 2.1</b> Biodiversity in Nine NPAs, including three micro-sites, are sustainably conserved, and key mangrove biodiversity is sustainably protected.	<b>Outcome 2.1:</b> 6 new PAs and 3 critical mangrove sites within existing PAs are managed in a participatory manner and generating BD conservation and livelihoods benefits	The wording of the Original Outcome was rephrased to encompass improvement of PA management with a focus on participatory approaches as described in the CEO request.
<b>Output 2.1.1.</b> Biodiversity in the Bemanevika NPA is sustainably protected (35,065 hectares).	<b>Output 2.1.1:</b> Integrated Management Plans for 9 PAs are developed (\$440,000)	<p><i><u>This change addresses following comments from the GEFSec and GEF Council:</u></i></p> <ul style="list-style-type: none"> <li>• While local communities are mentioned throughout the CEO Endorsement, it is not clear how the project will engage with them to provide economic benefits. Please describe proposed interventions.</li> <li>• Please clarify what is meant by new Protected Areas being "sustainably" and "effectively" managed; the project's vision for the sustainable management of Protected Areas should be clear.</li> <li>• Please explain how the project will achieve the following statement: "An underlying aim will be to generate socio-economic benefits for local communities and other economic actors, as well as generating biodiversity conservation, at all sites".</li> </ul> <p>The original Outputs (2.1.1-2.1.9) have been reorganized and reformulated into four new Outputs, all of which are focused on generating biodiversity conservation benefits and associated benefits for local communities that will contribute to the achievement of GEBs.</p>
<b>Output 2.1.2.</b> Biodiversity in the Alaotra Lake NPA is sustainably protected (46,432 hectares)	<b>Output 2.1.2:</b> PA staff with increased capacity for PA management in collaboration with local communities (\$590,000)	
<b>Output 2.1.3.</b> Biodiversity in the Makirovana Tsihomanaomby Complex NPA is sustainably protected (3,398 hectares)	<b>Output 2.1.3:</b> Local communities in areas adjacent to PAs and mangrove micro-sites have improved ability to participate in CBNRM, development of alternative sources of income and ecosystem restoration (\$200,000)	
<b>Output 2.1.4</b> Biodiversity in the Ranobe PK 32 NAP is sustainably protected (148,500 hectares)	<b>Output 2.1.4:</b> Pilot projects on CBNRM, alternative sources of income and ecosystem restoration are developed and under implementation (\$1,545,014)	
<b>Output 2.1.5</b> The expansion of Point à Larrée NPA is effective and biodiversity conservation is sustainably ensured in the core zone (770 hectares)		
<b>Output 2.1.6</b> Biodiversity conservation in the Tsimembo Manambolomaty NPA is sustainably ensured (62,745 hectares) including the mangroves in Masoarivo (6,824 hectares)		
<b>Output 2.1.7</b> The mangroves complex in the Ambaro Bay benefits from the NPA protection policy and the mangroves are managed sustainably (41,200 hectares)		
<b>Output 2.1.8</b> The Boanamaro mangrove micro site is restored and its biodiversity is sustainably protected (5,673 hectares)		
<b>Output 2.1.9</b> The mangrove Morondava micro site is restored and its biodiversity is sustainably protected (7,000 hectares)		
<b>Component 3.</b> Sustainability and knowledge management	<b>Component 3:</b> Knowledge management and public	The component name was rephrased to relate more accurately to the expected Outcome 3 and the revised Outputs 3.1.1-3.1.3. The

Original Element of Logframe	Revised	Explanations of Revised Project Elements
(\$347,619)	awareness (\$277,619)	Component budget was decreased because the previous Outputs 3.1.2-3.1.3 were moved to Component 1.
<b>Outcome 3.1</b> Project successes are made permanent and replicated	<b>Outcome 3.1:</b> Implementation of lessons learned by the project and increased public awareness on biodiversity conservation	The wording of the original Outcome was unclear and was not measurable; as a result, it has been rephrased to better reflect the Intermediate Outcomes and Outputs and to make it measurable.
<b>Output 3.1.1.</b> Local and traditional knowledge in conservation matter is documented, protected and valorized (\$87,000)	<b>Output 3.1.1:</b> Traditional Ecological Knowledge (TEK) database is developed and introduced to decision makers and local communities (\$97,000)	The wording of the original Output is unclear; as a result, it has been rephrased to reflect a more practical Output aimed at including TEK in practice and decision-making on conservation.
<b>Output 3.1.4.</b> Multi-media outputs that capture and disseminate project successes (websites, documents, videos, conferences, etc.) (\$124,000)	<b>Output 3.1.2:</b> Lessons learned by the project are disseminated by different means at national and international levels (\$55,000)	The wording of the original Output was rephrased to focus on the dissemination of lessons learned (success and failures) and to clarify that this will be done at both national and international levels. The budget was decreased but still expected to be sufficient for dissemination of project experiences.
<b>Output 3.1.5.</b> Awareness raising and advocacy toward policy makers for sustainable management and conservation of mangrove ecosystems are conducted. (\$46,619)	<b>Output 3.1.3:</b> Awareness raising campaign on conservation of mangroves and other ecosystems is developed and implemented (\$125,619)	The wording of the original Output was rephrased to broaden the focus to include not only decision makers but also the general public, which has significant capacity to influence decision-making. The budget for this Output has been increased to be more realistic for a broad public campaign.

**The project's goal is that** *the rational and effective management Madagascar's biodiversity and natural resources supports sustainable development for the well-being of the entire population, particularly the poorest of Madagascar society living in and around its protected areas.*

**The project objective is that** *Madagascar's strengthened network of PAs provides enhanced protection and better representation of key ecosystems, and delivers economic and environmental benefits to local communities.*

To achieve the above-mentioned objectives, and on the basis of a barrier analysis (see Section A4, Part II), which has identified: (i) the problem addressed in the project; (ii) its root causes; and (iii) the obstacles to overcome in order to actually solve the problem and its root causes, the project intervention is organized into three components, as detailed below.

### ***Component 1: Improvement of PA policy and governance***

***Outcome 1.1: Strengthened policy, governance, and financing frameworks for PA management, including for conservation of biodiversity and mangrove ecosystems***

Work under this component and its related outcome 1 will include the development of a needs-based capacity building program on protected area management; technical support to on-going negotiations to modify the process for establishing permanent PAs from the current NPAs (so that many more sites should be able to obtain permanent status); development of a national system to monitor NPA management and to monitor biodiversity at NPAs; creation of a National Action Plan for mangrove conservation; legal and regulatory changes to strengthen PA management and mangrove protection; and a funding strategy for newly established PA sites.

**TABLE 8: COMPONENT 1 OUTPUTS AND DESCRIPTIONS**

<b><i>Output</i></b>	<b><i>Description</i></b>
<b>Output 1.1.1:</b>	A needs-based training program for national PA agencies and other key stakeholders will be developed.

<p>National PA agencies (DAPT, DREEF, CIREEF, CEEF, and CSAPM) have increased capacity to develop and manage the PA system</p>	<p>This will include an initial assessment of (i) the skills required to establish and run a PA network, (ii) a review of ToRs for staff roles within the network, and (iii) identification of specific managerial and technical skills to fulfil these duties. The mapping of skills, timing and sequencing of training, and retention of skills once in place will be considered within an on-going training and capacity development strategy, led by the CSAPM as the multi-sector and multi-stakeholder coordination and awareness raising body for PA management in Madagascar.</p> <p>The skills and competencies provided to relevant staff, including NPA managers, technical government officers and DAPT technical staff, may include <i>inter alia</i>: conservation planning; GIS; biodiversity surveying; PA management planning; public participation (in conservation sector); legal (in conservation sector); aerial surveying; land use planning; and land use zone mapping. The training programme will be developed with all partner organisations. The delivery of the training will be pragmatic in order to reach such a large group, especially at the decentralised level. A training team will go to the 9 NPA sites to deliver the training on site, which will minimise time away from normal duties for PA staff. Some capacity gaps will be addressed with specialised professional short-course programmes (e.g. conservation planning software, field and aerial survey techniques, park boundary surveys with GPS, park-neighbour relations, communications and governance, etc.). Capacity building will also be targeted at strengthening CSAPM as a management mechanism for the protected area system, in the form of training, organizational strengthening, and technical support to the Commission and its sub-Committees.</p> <p>There will be transparency about how allocation of resources for training is made, and also balance between the training for the staff in charge of planning and management and those in charge of day-to-day park operations (the rangers, mechanics, etc.) and who are likely to yield immediately tangible results as result of their skills upgrading. All training materials produced will be published on the project website for on-going and future use, and for sharing with the general public and other countries embarking on similar exercises. It is recognized that training, competency and skills gaps will remain even after a major push supported by the project, but the Commission will address these over a longer time horizon through its training and capacity development strategy, which will be reviewed by the Project Steering Committee and external experts, but will be owned and maintained by the Commission itself.</p> <p>Output 1.1 will lead to <b>Intermediate Outcome 1.1</b> <i>Increased capacity of National PA agencies to develop and manage the PA system</i>, based on the assumption that the PA agency will utilize the new knowledge and skills provided by the project, and the Government of Madagascar will provide enough support to the agencies to implement their functions effectively.</p>
<p><b>Output 1.1.2:</b> Management instruments for PAs and mangroves are developed, discussed with stakeholders and submitted to the Government for approval</p>	<p>As described previously, each of the NPAs has a slightly different context and requires different forms of support in order to address – firstly, its legal status – and secondly, its management – the latter being handled more thoroughly in Component 2, but with key enabling frameworks and conditions established under this output. Activities under this output have been designed to take NPAs through a step-wise formalisation (i.e. towards proclamation or the “definitive decree of protection”) and start-up of their own management processes. The steps will apply to specific sites, according to their specific context.</p> <p>At each project site, the following activities will be undertaken, as required and appropriate<sup>41</sup>:</p> <ol style="list-style-type: none"> <li>a. Definitely define and map the proposed boundaries of the protected area using GPS and adding temporary markers at the sites to clarify the Government’s decision to formalise these NPAs;</li> <li>b. Develop and produce a Background Information Document about Government’s decision to establish a protected area. This may include information on: the proposed boundaries of the park; the draft regulations for the park; the institutional arrangements for the park; the consultation processes to be undertaken in park establishment; the proposed zonation of uses in the park; the potential impacts of the park on any land tenure and use rights; the opportunities and benefits of the park, including for communities living in/around the PA; a brief assessment of ecosystem services that will be rendered by the PA and the importance of these services for the country; the proposed timelines for implementation; and key contact details.</li> <li>c. Develop and implement a focused public participation program with individuals and communities with</li> </ol>

<sup>41</sup> This list is adapted from the activities of other GEF projects that have addressed the establishment of legal status and management of PAs. Acknowledgement to the portfolio of projects that have already been undertaken on these topics.

	<p>land tenure and use rights in and around the targeted area in order to communicate the decision to establish the national park, to address any key issues and concerns, and to obtain structured inputs and comments on the proposed boundaries, use zonation and regulations.</p> <p>d. With communities surrounding the park, develop a programme of how the PA will support local livelihoods including any income generating activities and enterprises.</p> <p>e. Implement a focused consultation and negotiation process with concerned institutional stakeholders (e.g. entities in charge of agriculture, forestry, extractive industries such as oil and mining, energy, water, tourism, as well as provincial and governments and local consultation committees) to address any key issues and concerns. Includes sessions of information and dissemination of guides for promoters / managers. (On the basis of guidance and feedback, develop a draft management plan for the NPA as under Component/Outcome 2 – emphasising that there should be coherence between the legal and managerial framework.)</p> <p>f. Review all the comments and inputs from all stakeholders (i.e. individuals, communities and institutions) and amend and finalize the boundaries, use zones and regulations of the protected area. Includes workshops to validate simplified management and creation tools</p> <p>g. Facilitate and support the formal proclamation process as required.</p> <p>h. Revitalization of the existing inter-ministerial committees (CIMF, CIFF, CHEF, CEP) to steer and supervise "the harmonization of texts and the management of contentious cases arising between the sectors concerned. Mission to ensure the role of a platform for intersectoral reflection and consultation on the sustainable management of natural resources".</p> <p>Achievement of this output will include a workshop to harmonize and align inter-sectoral activities, laws, and resources and to facilitate procedures, lobbying, and negotiations as they relate to Protected Areas management. The project will facilitate a number of inputs and CSAPM will play its coordinating role and will ensure rational and adequate utilization of resources, but the ultimate responsibility for following through with the final proclamations and management processes remains with the government. It is also important to re-iterate that each of the NPAs will have different circumstances to consider and therefore are likely to proceed at different paces through the above indicative activities. In addition, variable such as population density, economic circumstances, political and social conditions, etc. will affect the nature and speed of delivery. The PSC will be important to assist the PMU in managing adaptively to reach the best possible value for investments made by the project.</p> <p>Output 1.1.2 will lead to <b>Intermediate Outcome 1.2</b> <i>6 New PAs have official permanent status</i>, based on the assumption that the Government of Madagascar will support and finalize the legal establishment of the PAs.</p>
<p><b>Output 1.1.3:</b> Monitoring and evaluation tools to measure the management effectiveness of PAs are identified and introduced to PA agencies</p>	<p>This output involves establishing the tools for monitoring and evaluating the impacts of PA management and biodiversity conservation within the NPA network. This is a large objective that will need to be further refined with the guidance of the PSC. For this reason, a pilot effort will be considered to test and refine a system at one or two sites initially, rather than network-wide. Various M&amp;E tools will be scoped, and appropriate methods will be identified, costed, and discussed with various stakeholders and then implemented, including in a workshop that will validate the monitoring and evaluation tools before their adoption. Namibia's event book system is one PA- and community-supported model that could be examined during the process of assessing and designing an appropriate<sup>42</sup> approach. Once the system to be adopted is agreed, the project will undertake appropriate training sessions and extension of training to concerned actors including Central and decentralized MEEMF, COS, etc. and the PA staff at the one or two selected sites. Any monitoring and evaluation system requires a sustained effort in order to ensure that the results feed appropriately into decision-making systems. As with other outputs, it will ultimately fall to the Commission to take this forward after the initial support from the project.</p> <p>Output 1.1.3 will lead to <b>Intermediate Outcome 1.3</b> <i>Monitoring system for PA biodiversity and management effectiveness is approved by Government and implemented</i>, based on the assumption that the government will support this initiative and provide relevant funding for implementation.</p>

<sup>42</sup>Reference for the event book

<p><b>Output 1.1.4.</b> National Action Plan for mangrove conservation is formulated</p>	<p>The development of the National Action Plan for Mangrove Conservation will involve:</p> <ol style="list-style-type: none"> <li>a. Valuation of mangrove ecosystem assets</li> <li>b. Finalizing the stock taking of relevant policies, legislation, stakeholders, financing, resources, relevant international decisions, norms and standards, etc., conducted during the PPG phase</li> <li>c. Review of mangrove policies of other countries and sub-national areas for lessons learned and consideration of relevant guidelines and practices.</li> <li>d. Drafting and agreeing an objectives statement with the Commission.</li> <li>e. Developing a draft Action Plan for wide consultation including at mangrove sites themselves, including the organization and animation of regional workshops to collect the opinions, concerns, and suggestions of stakeholders. Indicative list of sites is Diana, Sofia, Boeny, Melaky, Menabe, Atsimo-Andrefana, Anosy, and Analanjorofo.</li> <li>f. Input from national level and validation of the results of regional consultations during a national workshop.</li> <li>g. Further expert and key stakeholder review of the Action Plan.</li> <li>h. Finalization of the Plan and adoption by the government.</li> <li>i. Urgent actions are implemented and partners are mobilized for long term implementation of the strategy</li> </ol> <p>Revised Output 1.4 will lead to the <b>Intermediate Outcome 1.4</b> <i>National Action Plan for mangroves conservation is implemented</i>, based on the assumption that the Government will approve the plan and provide sufficient funding for its implementation.</p>
<p><b>Output 1.1.5:</b> Legal and regulatory amendments to ensure permanent protection of mangroves and effective PA management are developed</p>	<p>This output is related to the development of integrated management approaches for mangroves, described above in Output 1.1.4. Following the delivery of Output 1.1.4, the project will identify the outstanding gaps at the legal / regulatory level that need to be addressed in order to enshrine permanent and sufficient protection for mangroves, and will draft necessary revisions to the relevant laws and regulations. Models employed successfully in other countries will be taken into consideration, as well as the monitoring results from mangrove sites targeted by the project, including through the Mid-term Review. For this reason, the specific activities under this output are likely to need further updating and refinement in the second half of the project.</p> <p>Output 1.1.5 will lead to the <b>Intermediate Outcome 1.5</b> <i>Improved laws and regulations in place for protection of mangroves and effective PA management</i>, based on the assumption that the legislative amendments developed by the project will be approved by the Government</p>
<p><b>Output 1.1.6:</b> Funding Strategy for new PAs is developed</p>	<p>There is a great deal of international guidance and experience, as well as a track record of domestic experiences, in developing financing/funding strategies for PAs and PA networks. This output will deal with improving the efficiencies of the network and individual PAs' financial and business management systems; identifying financing for individual priority PAs; and diversifying sources of finance for the entire PA system. Accordingly, the Commission will develop clear guidance on which aspects of the PA funding strategy should be prioritised (given limited resources). Guided by the PSC and updated as needed at project inception stage, the following indicative activities would be carried out under this output<sup>43</sup>:</p> <ol style="list-style-type: none"> <li>a. Updated analysis of the current financial baseline for the current protected area system (if needed at inception stage - whether the Commission already has this information to hand).</li> <li>b. Using financial planning tools, qualify and quantify the projected financial needs for an expanded protected area system under different management scenarios (e.g. 'current', 'basic' and 'optimal'). The products from this activity will feed into the preparation of budgetary requests to central government and should be reviewed and revised annually.</li> <li>c. Identify and describe the critical activities that would be required to: improve the current levels of investment in protected areas; mobilize additional financial resources for the protected area system; strengthen financial management systems; and improve business planning capabilities.</li> <li>d. Identify practical mechanisms to improve revenue streams for protected areas. This may include increasing the current income from conventional financial sources (i.e. government grants, fines, donor funding, and entry fees) as well as developing new funding sources (e.g. user permits, tourism/recreation concessions, biodiversity offsets, and trust funds).</li> </ol>

<sup>43</sup> This list is adapted from other GEF project dealing with the financing of PA and PA systems, whose efforts are acknowledged in providing such a framework.

- e. Provide technical support and advice to the Commission to support the cost-effective use of financial and business planning tools in: (i) medium-term and annual budget planning; (ii) financial management systems; (iii) financial control mechanisms; and (iv) annual auditing.
- f. Facilitate financial management training and skills development (including a staff exchange/mentoring partnership with counterpart regional conservation agencies) for key responsible staff.
- g. Review and update the enabling policy and legislative and regulatory framework for the sustainable financing of protected areas, including legislation for securing a permanent national budget for PAs.
- h. Pilot (at one or two sites) different models for the development, marketing and implementation of a system of entry and other user fees for PAs in Madagascar. This may include inter alia: implementing differential pricing; establishing pricing structures; developing marketing products and materials; initiating user fee collection systems; establishing controlled entry points; and designing and implementing compliance and monitoring systems.
- i. Prepare and present a business case to advocate an incremental increase of national budget allocations for protected areas, and develop a business plan for NPA marketing purposes and for resource mobilization
- j. Identification and prospection of new domestic and external funding sources
- k. Support donor management processes, including: targeting potential funders for projects, preparing detailed project proposals, liaising with different funders, and building working partnerships with funding agencies/ institutions.

The project will support the indicative list of activities above but ultimate responsibility lies with the government to ensure the sustainable financing of individual PAs and the entire network. Following implementation of this output, it is likely that gaps will remain, for example in the capacity to be innovative and to continuously pursue financial allocations, or to adapt to changes in consumer preference or other factors that contribute to PA finance. The assessments involved and list of gaps and needs should again be prepared by the Commission once the initial priority activities have been implemented, and updated on a 3-5 year basis to keep the strategy continuously updated and needs-driven. Additional sources of financing (beyond this project) are expected to be essential to ensure sustainability of this output.

Revised Output 1.6 will lead to the **Intermediate Outcome 1.6** *Funding Strategy for new PAs is approved and implemented*, given the political will of the Government of Madagascar and other partners to provide financial support and / or financing mechanisms for the national PA system.

## ***Component 2: Effective management of new PAs and critical mangrove sites (in existing PAs)***

### ***Outcome 2.1: 6 new PAs and 3 critical mangrove sites within existing PAs are managed in a participatory manner and generating BD conservation and livelihoods benefits***

This Outcome will be achieved in nine diverse PA sites described in the previous section and in related Annexes. Through establishing / strengthening these PA sites, Madagascar's overall PA system will become more representative of the different ecosystems in the country - marine/coastal, freshwater, and terrestrial waters, including under-represented mangrove ecosystems. The approach under this component has been considerably revised since the PIF, taking due account of different circumstances, capacities, stakeholder views, local partnerships, politics, etc. Working with the promoters, local government technical departments, and local communities, a scientific-based and participatory process for establishing effective NPA management will be supported. Two broad sets of activities will take place in parallel. The first set of activities will focus on immediate priorities – based on existing information and/or rapid participatory assessments, the project will support urgent priority activities that are expected to lead to both conservation and socio-economic benefits for local communities and other economic actors with immediate impact. A second set of project activities will support a thorough approach to NPA strengthening, by taking the nine NPAs through the following steps: obtaining temporary status; undertaking studies; facilitating negotiations; developing Management Plans; obtaining permanent status; launching Management Plan implementation; and thorough monitoring of the NPAs. A key task is to pilot simplified tools for establishing NPAs, notably a simplified EIA, a simplified system/methodology for topographical surveys, and also piloting conflict resolution to address conflicts between NPA status and previously established land and

resource use rights (this will be the practical piloting of tools developed under the first Component). Long-term implementation of the site management plans will be the responsibility of the promoters and local government agencies, as the project can only make strategic inputs and investments. However, planning for effective and sustainable<sup>44</sup> management will be at the centre of the project and the activities of the CSAPM right from inception.

What does it mean for each site to be managed “effectively” and “sustainably?” The elements can be broken down into a number of factors variously relevant to each site:

**TABLE 9: DEFINITIONS OF EFFECTIVENESS AND SUSTAINABILITY**

<i>Terminology</i>	<i>Definition and how it is perceived in this project</i>
PA effectiveness	<p>The term effectiveness (read as management effectiveness) reflects three main themes in protected area management:</p> <ol style="list-style-type: none"> <li>1. Design issues relating to both individual sites and protected area systems;</li> <li>2. Adequacy and appropriateness of management systems and processes;</li> <li>3. Delivery of protected area objectives including conservation of values.</li> </ol> <p>The IUCN-WCPA framework for evaluating management effectiveness includes:</p> <p><i>Design and issues</i> Context: Assessment of importance, threats and policy/cultural environment Planning: Assessment of protected area design and planning</p> <p><i>Appropriateness of management systems and processes</i> Inputs: Assessment of resources needed to carry out protected area management Processes: Assessment of the way in which management is conducted</p> <p><i>Delivery of protected area objectives</i> Outputs: Assessment of the implementation of management programmes, actions and services Outcomes: Assessment of the extent to which objectives have been achieved</p> <p>The project’s definition of effectiveness of PAs is guided by this international framework for management effectiveness, making allowances for domestic priorities and interpretation as relevant and guided by the PSC.</p> <p>The Management Effectiveness Tracking Tool (METT) is used for evaluating management effectiveness of GEF-funded PA projects, including this one. This is one of the two most widely used/adapted globally applicable generic systems developed to assess protected area management effectiveness. The scorecard includes all six elements of management identified in the IUCN-WCPA’s framework (context, planning, inputs, process, outputs and outcomes), but has an emphasis on context, planning, inputs and processes.</p>
PA sustainability	<p>Elements of PA and PA network sustainability include:</p> <ul style="list-style-type: none"> <li>• Social and political sustainability – buy-in at various levels and continued support</li> <li>• Economic contribution and financial sustainability of the network – financial considerations are a major concern</li> <li>• Ecological sustainability – does the management of the PA over a long time horizon meet the objectives for the PAs establishment, including conservation of species and habitats of international and national importance, and the delivery of priority or essential ecosystem services</li> </ul> <p>The PA community is often most focused on financial sustainability defined by the CBD as “the ability to secure stable and sufficient long-term financial resources, and to allocate them in a timely manner and appropriate form, to cover the full costs of protected areas (direct and indirect) and to ensure that PAs are managed effectively and efficiently”<sup>45</sup>. It is clear that achieving financial sustainability will require major changes in the way that funding is conceptualised, captured and used (in Madagascar and other countries). But the challenge here should not overshadow other forms of PA and PA network sustainability that are also essential.</p>

In both of the above cases, a range of COP decisions, Programme of Work on Protected Areas (PoWPA), Aichi Targets and other guidance from the CBD, IUCN World Commission on PAs (IUCN-WCPA) and other bodies applies. Tools are

<sup>44</sup> Sustainability in this document includes social, environmental and economic factors – within the dimension of financial sustainability, many revenue sources are envisioned including PA entrance fees, levies on tourism, etc.

<sup>45</sup> See e.g. UNEP/CBD/WS-PA/SWA/1/3



also available to support meeting these objectives, and previous experiences from Madagascar and elsewhere to inform how the terms can be interpreted and realized. The PMU is the responsible body for ensuring that project approaches use domestic experiences as well as international norms and standards in defining these terms, with guidance from the PSC and the Commission. Given that the measurement of “sustainability” and “effectiveness” is important for project management, adaptive management, M&E of the project, engaging with the applied research community (see “Monitoring, Evaluation and Applied Research”), communication, transparency, accountability and other needs, appropriate indicators of these broad objectives will be devised at a site level in consultation with local communities, PA managers and other stakeholders. The vision at each site for what these broad objectives mean in practice will therefore be jointly owned.

**TABLE 10: COMPONENT 2 OUTPUTS AND DESCRIPTIONS**

<i>Output</i>	<i>Description</i>
<b>Output 2.1.1:</b> Integrated Management Plans for 9 PAs are developed	<p>Each of the participating nine PA sites will develop - or as applicable, update – an Integrated Management Plan (IMP). In developing the IMPs, various guidance documents will be utilized, including IUCN and the CBD’s PoWPA programme, but the rough steps involved are:</p> <ul style="list-style-type: none"> <li>• Phase 1: Pre-planning</li> <li>• Phase 2: Data gathering and analysis: This includes 1) Data gathering and issues identification; 2) Evaluating the information about the protected area; and 3) Identification of constraints, opportunities, threats.</li> <li>• Phase 3: Drafting a Management Plan. This includes: 4) Developing management vision and objectives; 5) Developing (and evaluating) options for achieving vision and objectives, including Zoning; 6) Preparing the draft Integrated Management Plan; and 7) Reviewing and finalizing the plan with stakeholders</li> </ul> <p>Stakeholders representing the widest possible range of interests will be brought together to a well-structured stakeholder event to think globally about their future, to identify common ground and to put together either the elements or a statement of a vision. Special techniques for visioning will be used, followed by the setting of strategic objectives and defining measures/activities for the achievement of the objectives; overall the stakeholder consultations will be carefully planned based on lessons learned in other PA projects<sup>46</sup>. Stakeholder consultations will also be critical for updating the Tracking Tools and PRF targets. The range of project partners at each site listed in the cofinancing table will be closely involved in the process at each site. In some cases project partners could play a leading role in the project, for example the Peregrine Fund.</p> <p>The Integrated Management Plans will seek to promote new approaches to NPA management in Madagascar, including: i) a move away from “strict to multiple-use protected area categories; ii) greater community participation in protected area governance, through the establishment of co-management structures and the empowerment of local users’ associations; iii) an increased focus on community development activities within protected area management plans; iv) a new emphasis on the evaluation and mitigation of negative social impacts of protected area creation, with an innovative (for Madagascar) legal requirement to develop a social safeguards plan; and v) greater involvement with a diverse array of stakeholders across larger spatial scales, such as regional authorities and the private sector<sup>47</sup>.</p> <p>Revised Output 2.1.1 will lead to the <i>Intermediate Outcome 2.1. Integrated Management Plans for 9 PAs (6 new PAs and 3 mangrove micro-sites) are approved and implemented</i>, based on the assumption that the Government will approve the new Integrated Management Plans.</p>
<b>Output 2.1.2:</b> PA staff with increased capacity for PA management in	<p>Building on the needs assessment approach/process undertaken at the national level under Output 1.1.1, a training needs assessment will be undertaken at each site to determine the key capacity gaps relating to law enforcement, biodiversity monitoring and community outreach. The project will gather the related project partners and strengthen existing capacity and experiences at local level, at the existing sites and elsewhere in Madagascar.</p>

<sup>46</sup> From: NATREG (2010). Guidelines on Stakeholder Engagement in Preparation of Integrated Management Plans for Protected Areas. [http://www.zrsvn.si/dokumenti/64/2/2010/Guidelines\\_on\\_stakeholder\\_engagement\\_REC\\_1978.pdf](http://www.zrsvn.si/dokumenti/64/2/2010/Guidelines_on_stakeholder_engagement_REC_1978.pdf).

<sup>47</sup> From Gardner et al. (2013).

collaboration with local communities	Revised Output 2.1.2 will lead to the <b>Intermediate Outcome 2.2. Increased capacity of the staff at new PAs to carry out law enforcement, biodiversity monitoring and community outreach activities in collaboration with local communities</b>
<b>Output 2.1.3:</b> Local communities in areas adjacent to PAs and mangrove micro-sites have improved ability to participate in CBNRM, development of alternative sources of income and ecosystem restoration	<p>Outputs 2.1.3 and 2.1.4 are designed to address the incentives for local communities to accept PAs as an integral part of their local landscape. The promotion of a PA approach centred around communities is still relatively new in Madagascar and any notion of Community-Based Natural Resource Management (CBNRM) is still in its infancy compared to elsewhere in the world. However, exciting developments are taking place in the country, for example work by Blue Venture, Peregrine Fund and other partners, that indicate the potential success of CBNRM approaches.</p> <p>To begin, the project will support capacity building for local communities in areas adjacent to PA sites and mangrove micro-sites to enable them to participate effectively and in collaboration with PA managers in CBNRM activities, particularly around alternative livelihoods opportunities and ecosystem restoration initiatives. Given the many challenges and issues presented at each site (as described in Table 6), including very high levels of poverty, illiteracy, mistrust and misinformation as well as the remote location of most sites / communities, significant outreach and capacity building with rural communities will be vital to facilitating CBNRM approaches. These same challenges will also require the project to undertake careful consideration and planning, and to draw on the lessons of other organizations and projects, in developing specific CBNRM activities. For this reason, although the original intention of the project was that the project would work at all sites equally, additional planning and feasibility studies will be carried out in the earliest part of the project implementation so that the project can focus on a narrower set of activities and at a smaller number of sites. In addition, even though the budget for Outputs 2.1.3 and 2.1.4 has been increased substantially from the previous proposal, one of the key criteria for selecting specific activities at specific sites will be the potential for co-financing from other existing programs. Other key criteria for selecting specific CBNRM activities include, <i>inter alia</i>, the following:</p> <ul style="list-style-type: none"> <li>• Does the activity contribute to capacity building at the national and local levels to support effective management of individual protected areas and protected area systems</li> <li>• Does the activity promote the participation and capacity building of indigenous and local communities (through relevant network) in the design, implementation, and management of protected areas</li> <li>• Does the activity promote protected area co-management between government and indigenous and local communities where such management models are appropriate</li> <li>• Does the activity contribute to the development and integration of adaptation and resilience management measures as part of protected area management</li> <li>• Does the activity increase the representation of key ecosystems in the protected area system</li> <li>• Does the activity address the gaps at the national level in the coverage of terrestrial ecosystems and threatened species</li> </ul> <p>Local communities living within and outside NPAs depend on natural resources and biodiversity for their subsistence. When a new Protected Area is established, limitations on the collection and use of natural resources are sometimes introduced. It is therefore important to provide livelihoods options for resident communities that are 'alternative' to the status quo (i.e. uses that are unsustainable and/or illegal and degrade natural resources and biodiversity at the site). An indicative list of possible livelihood options for the project sites includes:</p> <ol style="list-style-type: none"> <li>(i) Direct employment in the management of PAs, such as management or research/survey staff, rangers/guards, community extension awareness/education officers, etc.;</li> <li>(ii) Continued sustainable and controlled uses of natural resources within PAs, such as harvesting of fuelwood, non-timber forest products, fish and game, or periodic limited access for livestock during droughts, governed by new PA-community agreements</li> <li>(iii) Local employment in visitor management and ecotourism associated with the PA</li> <li>(iv) Small scale local enterprises to develop and market nature-based products (e.g. organic farming products, nature-related handicrafts, etc.)</li> <li>(v) Revenue-sharing mechanisms between communities and PAs to ensure that a share of visitor revenue will flow to local communities</li> </ol>
<b>Output 2.1.4.</b> Pilot projects on CBNRM, alternative sources of income and ecosystem restoration are developed and under implementation	<p>Revised Outputs 2.1.3 and 2.1.4 will lead to the <b>Intermediate Outcome 2.3. Increased capacity of local</b></p>

	<i>communities in areas adjacent to PAs and mangrove micro-sites to participate in PA management, conservation and livelihoods development activities and the <b>Intermediate Outcome 2.4</b>. Local communities and Protected Area sites are benefitting from CBNRM, alternative sources of income and ecosystem restoration, based on the assumption that targeted communities are willing to participate and that relevant government / PA staff members are willing to engage with local communities.</i>
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### **Component 3: Knowledge management and Public Awareness**

#### **Outcome 3.1: Increased public awareness and policy integration of TEK and biodiversity conservation**

This Outcome will ensure project successes from Components 1 and 2 are sustained and replicated to the many other NPAs in Madagascar. Drawing lessons from both positive and negative experiences, the project will assist national agencies in developing the required tools and instruments, including a mechanism to ensure local conservation knowledge is captured and stored in a format useful for national dissemination. The project will also support development and monitor the level of user uptake of a range of multi-media outputs that capture and disseminate project successes (websites, documents, videos, conferences, etc.).

**TABLE 11: COMPONENT 3 OUTPUTS AND DESCRIPTIONS**

<b>Output</b>	<b>Description</b>
<b>Output 3.1.1.</b> Traditional Ecological Knowledge (TEK) database is developed and introduced to decision makers and local communities.	<p>The primary objective of this output is to demonstrate the actual and potential value of TEK in Madagascar, which is often overlooked and/or undervalued by various stakeholders. The PMU guided by the PSC will select a pilot activity for support in this regard, which will be identified through the consultations described under Components 1 and 2 in one hand and in other hand in collaboration with experienced partners in this field including Natural Justice, Madagascar National Park and WWF. Following the selection of a specific case study that can demonstrate the value of TEK and stimulate more interest in obtaining local knowledge on conservation for PA management, the following indicative activities will be supported:</p> <ul style="list-style-type: none"> <li>- Inventory, development monitoring, storage and dissemination of local knowledge on conservation matters (tightly scoped, as above)</li> <li>- Selection and development of dispatching/dissemination support processes</li> <li>- Exchanging and sharing local knowledge between communities, i.e. exchange visits between communities at different sites on the basis of the case study publication and dissemination</li> </ul> <p>A suitable partner organization such as a CSO or NGO will be identified to support these activities. The project will particularly seek collaboration with Natural Justice, Madagascar National Park and WWF to gain from their long term experience in the country and elsewhere. This collaboration will help to identify and agree to a suitable mechanism which can be applied in the country. International norms around engaging with communities and the sharing of traditional knowledge (which can be extremely sensitive, and can have financial implications relating to biotrade and bioprospecting) will be respected. If a suitable case study cannot be identified an alternative approach should be presented to the PSC on how the project can support the improved protection and valorization of local knowledge in an appropriate manner in Madagascar.</p> <p>The revised Output will lead to the <b>Intermediate Outcome 3.1 Traditional Ecological Knowledge (TEK) is integrated in conservation decision-making and practices of local communities</b>, based on the assumption that decision-makers and communities will see the value of TEK for improving natural resource management and will integrate TEK considerations into future natural resource management policies and activities.</p>
<b>Output 3.1.2.</b> Lessons learned by the project are disseminated by different means at national and	<p>International good practice will be followed with regard to gathering and disseminating lessons learned during project implementation. The CBD COPs, IUCN events, regional gatherings and other events will be used as platforms to disseminate information internationally. At the national level, the SAPM Commission will function as the platform to support exchanges of information and experience. This output will be closely linked to the project Monitoring and Evaluation activities.</p> <p>The revised Output will lead to <b>Intermediate Outcome 3.2 Lessons learned by the project are used by other national and international programs and projects</b>, based on the assumption that other stakeholders will be</p>

international levels	interested in the project lessons in order to develop best practices and avoid costly mistakes
<p><b>Output 3.1.3.</b> Awareness raising campaign on conservation of mangroves and other ecosystems is developed and implemented</p>	<p>Political commitment is an essential element of any successful ecological management as there are inherent trade-offs involved in any strategy. Mangrove areas can be particularly controversial because of the potential distribution of benefits and costs between elites and communities, for example if mangroves are converted for shrimp farming, so that fish can no longer breed there and coastal protection is gone. There are also social and cultural factors at play - attitudes can vary where different communities have quite distinct management practices. There can be different cultural attitudes and/or current socio-economic pressures combined with different levels of awareness of the benefits and vulnerability of ecosystems and associated ecosystem services. For this reason, the project will include specific messages and delivery mechanisms tailored to policy makers. At the same time, support from communities in and around the project sites as well as the general public in Madagascar is important for implementing project interventions and creating pressure on policy makers. A great deal has been learned in recent years on the potential effectiveness of awareness raising campaigns, and the project will draw from national experiences in Madagascar as well as international experiences such as those collated through the IUCN Commission on Education and Communications<sup>48</sup>. The project intends to conduct awareness raising activities that include data and information developed through the project, but also include messages that address people’s emotional triggers and responses, drawing from the field of conservation psychology<sup>49,50</sup>, as well as behaviour change strategies such as “Love, not loss” messages<sup>51</sup> that have been effectively used in combatting wildlife crime. The project also will draw on knowledge and strategies developed in climate change communication programs<sup>52</sup>. Specific design and implementation steps for the awareness raising campaign will include:</p> <ul style="list-style-type: none"> <li>• Review best practices in international and national conservation awareness raising campaigns / behaviour change approaches</li> <li>• Through a consultative process, identify key awareness needs and behaviour change approaches related to mangroves and other key ecosystems for selected priority target groups – the “campaign vision”</li> <li>• Undertake detailed target group segmentation and underpin with specific target group research and behaviour change analysis as needed</li> <li>• Develop a draft awareness raising and behaviour change plan, including through national campaign elements</li> <li>• Develop implementation plan for a suite of stakeholders, including MEEF and government and independent media outlets, professional agencies, international partners</li> <li>• Implement partnership involvement plan including through devolution of budget incentives and specific contracts</li> <li>• Develop a monitoring scheme that tracks actual impact of the strategy and attainment of desired behaviour changes.</li> </ul> <p>The revised Output will lead to the <b>Intermediate Outcome 3.3</b> <i>Increased public awareness on conservation of mangroves and other ecosystems</i>, based on the assumption that there will be public responsiveness to effective messages on environmental issues in Madagascar.</p>

## Theory of Change

A Theory of Change is a methodology that maps the assumptions that inform planned interventions within all stages of an initiative. It is an outcomes-based approach which applies critical thinking and analysis to the design, implementation and monitoring of programmes and projects that intend to support change.<sup>53</sup> It is both an iterative process to support critical thinking at each step of the project cycle and also a product in the form of a matrix (i.e. logical framework) or diagram.

<sup>48</sup> See <http://cectalksnature.org/>

<sup>49</sup> <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199733026.001.0001/oxfordhb-9780199733026-e-1>

<sup>50</sup> <http://www.cectalksnature.org/members-in-action-articles/conservation-psychology-an-online-course>

<sup>51</sup> <https://www.iucn.org/content/love-not-loss-communicating-biodiversity>

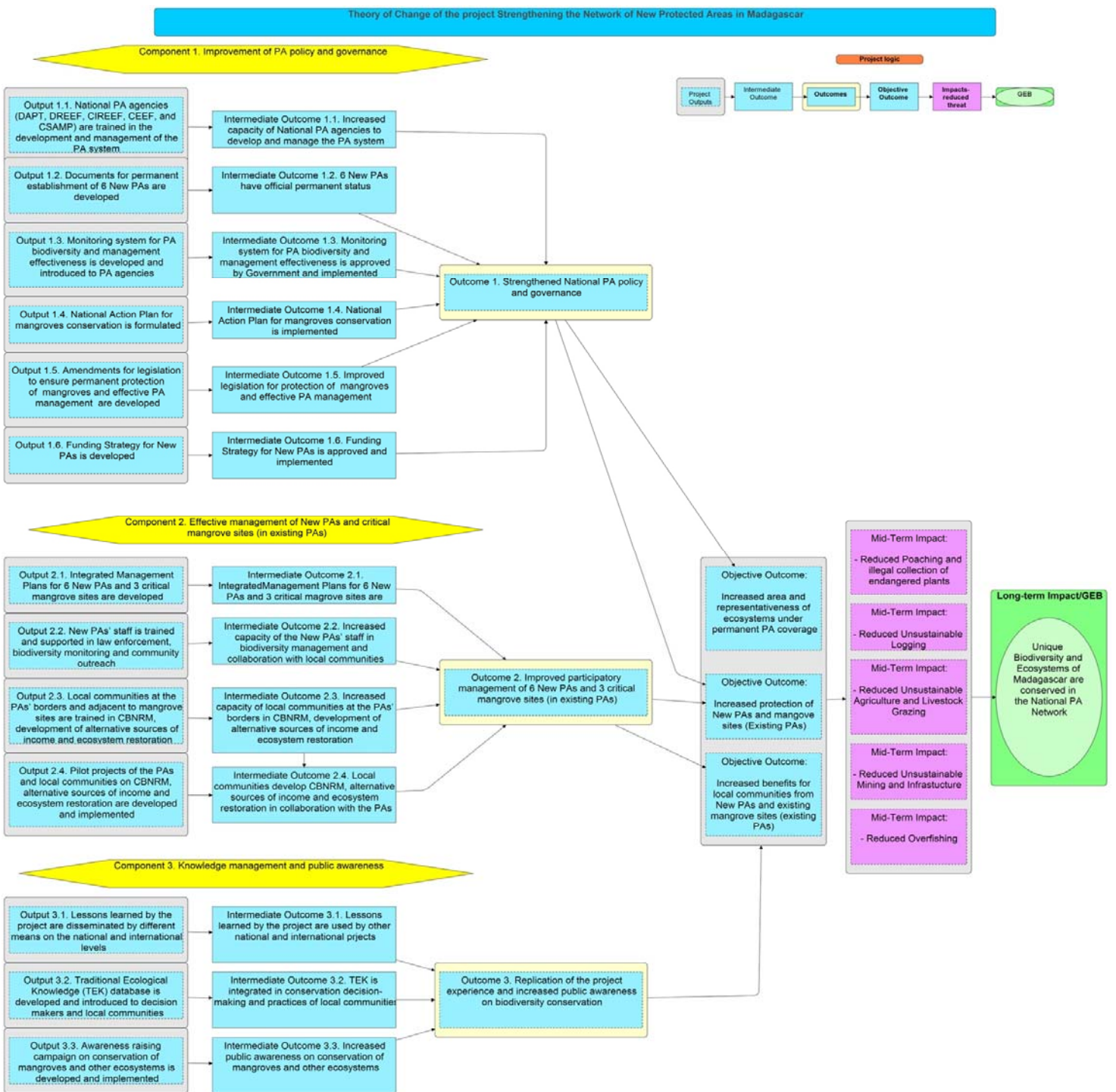
<sup>52</sup> <http://www.wearefuterra.com/our-projects/sell-the-sizzle/>

<sup>53</sup> Review of the use of “Theory of Change” in international development. Isabel Vogel, April 2012

The project theory of change is designed to address the root causes and barriers described earlier, and to build upon the current baseline situation. A draft is summarised in the summary paragraph and graphic below.

Madagascar is among the 10 hotspots of world biodiversity with a high concentration of endemic species. Madagascar's biodiversity is globally important, yet it is being rapidly lost. The protected areas play a critical role in the provision of economic and social value. In the business-as-usual scenario, there are significant threats that the PA network will be unable to conserve biodiversity or protect ecosystem services that are currently relied on (particularly by poor and vulnerable groups). These threats fall under three broad categories: 1) uncontrolled exploitation is altering and damaging Protected Areas, with unclear and possibly sub-optimal (and unevenly distributed) socio-economic returns; 2) rapid and uncontrolled/unplanned land-use change is weakening the future ability to mitigate threats from climate change and to provide services in the future; 3) damage caused by invasive alien species, fire and disease will further weaken the natural ecosystems within PAs and their ability to play an active role in mitigating future threats. Building on the ongoing interventions of the Government and other partners, and taking into consideration the risks and assumptions identified; the project support to the country is expected to generate outcomes which will lead respectively to (i) Strengthened policy, governance, and financing frameworks for PA management, including for conservation of biodiversity and mangrove ecosystems; (ii) 6 new PAs and 3 critical mangrove sites within existing PAs managed in a participatory manner and generating BD conservation and livelihoods benefits; (iii) Implementation of lessons learned by the project and increased public awareness on biodiversity conservation. To achieve this, the project will help to remove three key barriers which are related to (a) inadequate institutional, policy, regulatory and financial frameworks for Protected Areas in Madagascar; (b) management of individual Protected Areas constrained by poor governance, insufficient technical capacities and lack of community participation and (c) insufficient knowledge and public awareness of the potential benefits and opportunities of protected areas and biodiversity conservation. Achieving such outcomes will lead to increased area and representativeness of ecosystems under permanent PA coverage, increased protection of new PAs and mangrove sites, and increased benefits for local communities from new and existing PAs and mangrove sites. The mid-term impacts of such will be (i) reduced poaching and illegal collection of endangered plants; (ii) reduced unsustainable logging; (iii) reduced unsustainable agriculture and livestock grazing; (iv) reduced unsustainable mining and infrastructure; and (v) reduced overfishing. The long-term impact of the project will be the unique biodiversity and ecosystems of Madagascar are conserved in the National PA Network.

As indicated earlier, and especially for Component 2 of the project, there will be a consultative exercise to update the Theory of Change (ToC) for the project. At project inception, the ToC will be reviewed and agreed amongst the PSC members with support of the PMU. International and partner support and peer review will be drawn on to strengthen the ToC, with backstopping from UNEP. It's particularly important within the ToC that the risks and assumptions are more clearly defined to improve the capacity of the PMU for adaptive management.



**FIGURE 2: THEORY OF CHANGE DIAGRAM**



## Conceptual Approaches Guiding the GEF Alternative

### Demonstration Site Design

At inception stage, the project team working closely with the Project Steering Committee will elaborate detailed activities for each of the nine PA sites, in particular for activities under Outputs 2.1.3 and 2.1.4. This activity at the inception stage will also assess whether an experimental approach<sup>54</sup> would be effective, or whether intensive monitoring of project activities and outcomes is a more suitable approach. Benefits of the experimental approach include:

- To be better informed about what works and under what conditions
- ‘Modernises’ project design - potential for innovation leading to greater results / outcomes
- Easier to measure & report outcomes with the GEF investment from each site
- More precision in the expected results, strengthens theory of change

Possible inclusion of an experimental approach will be investigated for each site.

### Engaging Local Communities in Protected Areas

Realizing synergies between conservation and poverty alleviation is particularly important in Madagascar, which is not only among the world's poorest countries, but also a leading global conservation priority or hotspot<sup>55</sup> (see also Global Environmental Benefits). The costs and - often potential, not fully realized - benefits of individual protected areas for community livelihoods have been well documented<sup>56</sup>. In some cases although conservation might prove beneficial for local people in the long run, its immediate local costs are high<sup>57</sup>. Many PAs are weakened by human-PA conflicts resulting from the separation of natural resource protection from human considerations<sup>58</sup>, an issue IUCN, the CBD, the GEF and its implementing agencies, leading international NGOs and others have worked to address for at least 15 years<sup>59</sup>. The day-to-day reality is that for PAs to fulfil both development and biodiversity objectives, they must constantly navigate towards solutions at the heart of complex, multi-scale, and inter-generational environment-development issues<sup>60</sup>:

- **Economic:** promote sustainable value chains for natural resources (forest products, wood, fodder), developing alternative economic activities to overexploitation, valuing controlled hunting, ecotourism;
- **Food:** promoting sustainable agriculture maximizing returns on small areas and in the context of climate change;
- **Energy:** promoting sustainable energy systems; and
- **Land**<sup>61</sup>: secure spaces for the direct benefit of the population, as land tenure insecurity impedes biodiversity conservation objectives and rural development, e.g. the potential of initiatives such as CBNRM, PES, REDD+, etc.

This project prioritizes and aims to support communities living in and adjacent to the NPAs and mangrove areas, as a

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<sup>54</sup>See <https://www.thegef.org/publications/experimental-project-design-gef>

<sup>55</sup> Brooks, J. S. et al. (2006). Testing hypotheses for the success of different conservation strategies. *Conservation Biology* 20:1528–1538. As cited in Gardner et al 2013. Protected areas for conservation and poverty alleviation: experiences from Madagascar. *Journal of Applied Ecology*, 50(6): 1289–1294.

<sup>56</sup>See e.g. summary in Coad, L. et al. (2008). *The Costs and Benefits of Protected Areas for Local Livelihoods: a review of the current literature*. Working Paper. UNEP World Conservation Monitoring Centre, Cambridge, U.K.

<sup>57</sup> Kari, S. and Korhonen-Kurk, K. (2013). Framing local outcomes of biodiversity conservation through ecosystem services: A case study from Ranomafana, Madagascar. *Ecosystem Services* 3: 32–39.

<sup>58</sup>Ormsby A. and Kaplin B. (2005). A framework for understanding community resident perceptions of Masoala National Park, Madagascar. *Environmental Conservation* 32 (2): 156–164. In this case study in northern Madagascar, four main factors were found to influence residents’ perceptions of the national park: the history of park management, community awareness of the park, community awareness of park staff and community benefits from the park.

<sup>59</sup>More generally through Integrated Conservation and Development Projects from the 1980s. The 5th World Parks Conference in Durban (2003) was somewhat of a watershed, with specific recommendations dealing with equity, indigenous people, participation, co-management and related issues. See IUCN (2003) Message of the Vth IUCN World Parks Congress to the Convention on Biological Diversity, *Journal of International Wildlife Law & Policy* 6:3, 277-303

<sup>60</sup>List translated from Gret (2013). *Conservation et développement : pour une gouvernance partagée des Aires protégées en Afrique*. Available online [here](#).

<sup>61</sup>See also Aubert, S. et al. (2013). L’insécurité foncière dans et autour des Aires Protégées de Madagascar : un obstacle à surmonter pour la conservation de la biodiversité et le développement rural. *Développement durable et territoires Économie, géographie, politique, droit, sociologie*. Vol. 4(1): La biodiversité aménage-t-elle le territoire? Available online [here](#).

development objective in its own right as well as to engage communities in the protection of biodiversity. This is part of a long-running strategy: since Madagascar's former president announced at the 5th IUCN World Parks Congress the intention to triple the country's PA coverage (a process known as the Durban Vision), the strategy employed has underscored that the new parks would engage local communities. Relevant guidance has been drafted collaboratively by NGO, government, and donor officials, emphasizing that the creation of new parks should involve consultation with affected populations and promote community management<sup>62</sup>. Legislation, embodied in a December 2005 *decret d'application* (application decree), required consultation with people having customary and state-recognized land<sup>63</sup>. Most of Madagascar's NPAs are designated as IUCN category V and VI multiple-use sites, in which sustainable extraction (of, for example, fuel and construction wood, non-timber forest products and bushmeat) is permitted according to a zoning plan, and are co-managed via agreements between NGOs and local community structures<sup>64</sup>. Donors and NGOs have since lauded the program's commitment to community involvement<sup>65</sup>.

At the same time, the SAPM has faced criticism<sup>66</sup> including documentation of some cases that were lacking community involvement in line with SAPM's own policies. One factor cited was that "national and international political pressure to implement the program rapidly compelled the day-to-day attention of regional staff toward creating biodiversity prioritization maps and meeting numerical targets and away from consultation with affected villagers." (In that case, local views were represented at the mayoral level, with the potential to further entrench power relations at the local level<sup>67</sup>. Other cases with other unintended effects have been presented.) Such dynamics represent important considerations for the present project, which will need to navigate an appropriate balance between delivery project results and addressing the priority for participation, which can be time and resource intensive. (See also project risks table).

The demands on PAs can be incredibly challenging to realise, in particular for PA managers – who may be equipped with very limited budgets to meet big expectations of facilitating rural development and poverty alleviation while also ensuring the viability of fragile ecosystems and species. Newer PA management models build on approaches such as integrated conservation-development projects (ICDP) and CBNRM, and as such "the management of Madagascar's new generation of protected areas differs markedly from that of the state-managed network of strictly protected sites<sup>68</sup>" – necessitating considerable training, or rather retraining if the experience of PA managers pre-dates the new approach (see detail under Component 1, Output 1.1.1 in particular).

At the same time, this is not a new or unique challenge in development programming<sup>69</sup>. Numerous methods have been devised to measure and address the level, intensity, or "ladder", of participation from manipulation or tokenism to interaction and self-mobilization. An illustrative example of participation levels and their characteristics<sup>70</sup>:

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<sup>62</sup> Commission SAPM (2006) cited in Corson C. (2010). From Rhetoric to Practice: How High-Profile Politics Impeded Community Consultation in Madagascar's New Protected Areas. *Society and Natural Resources* 25:336–351.

<sup>63</sup> Repoblikan'i Madagasikara (2005) cited in Corson (2010) with a number of donor and NGO statements cited e.g. from WCS senior vice-president John Robinson: "This commitment recognizes the importance of parks as a way to both protect biodiversity and to promote sustainability and national development in the rural landscape. Madagascar is clearly leading the way towards this vision by promoting long-term partnerships with all sectors of civil society". Originally in CI (2011). Madagascar to triple areas under protection: Plan calls for the creation of a 6-million-hectare network of terrestrial and marine reserves. Available from [here](#).

<sup>64</sup> Gardner 2011. Cited in Gardner et al. (2013).

<sup>65</sup> Corson (2010).

<sup>66</sup> Corson (2010). See also: (1) Pollini, J. 2007. Slash and burn cultivation and deforestation in the Malagasy rain forests: Representations and realities. PhD dissertation, Department of Natural Resources, Cornell University; and (2) Marie, C. N. et al. (2009). Taking into account local practices and indigenous knowledge in an emergency conservation context in Madagascar. *Biodiversity Conservation* 18:2759–2777. ☒

<sup>67</sup> Vuola, M. (2015) Local agency, involvement and initiative in biodiversity conservation in Ranomafana National Park, Madagascar. Master's Thesis, Development Geography, University of Helsinki.

<sup>68</sup> Gardner et al 2013: "The major differences include the following: (i) fewer access restrictions, as illustrated by the shift from strict to multiple-use protected area categories; (ii) greater community participation in protected area governance, through the establishment of co-management structures and the empowerment of local users' associations; (iii) an increased focus on community development activities within protected area management plans; (iv) a new emphasis on the evaluation and mitigation of negative social impacts of protected area creation, with a novel (for Madagascar) legal requirement to develop a social safeguards plan; and (v) greater involvement with a diverse array of stakeholders across larger spatial scales, such as regional authorities and the private sector."

<sup>69</sup> See e.g. Pretty, J.N., et al. (1995) *Participatory Learning and Action: a Trainer's Guide*. London, UK: International Institute for Environment and Development. Also earlier seminal work by e.g. Robert Chambers - Chambers, R. (1983) *Rural Development: Putting the Last First*. New York, USA: John Wiley & Sons, Inc.



1. “Manipulative participation”: Pretence of participation; community representatives on boards are unelected with no power
2. “Passive participation”: People are informed, but decisions are already made in advance
3. “Participation by consultation”: People participate by contributing information the management through interviews
4. “Participation for material incentives”: People contribute resources or labour, receive resources in return
5. “Functional participation”: Participation as means to achieve goals; local people have some decision-making, major decisions still determined externally
6. “Interactive participation”: Participation as a right; people actively involved in learning and analysis; people have control over decisions they are affected by
7. “Self-mobilization”: People have full control and act independently; resources may still be externally sourced.”

A recent meta-analysis of 120 park-community studies<sup>71</sup> found that many PAs have “token” or “passive” participation from adjacent communities. The same study emphasizes that extrinsic incentives (i.e. external to the self) such as enforcement and payments, seem to be “necessary short-term responses to halt immediate biodiversity degradation”<sup>72</sup>. If, however, conservation values are to be self-sustaining (and adaptable to unforeseen development pressures?), these strategies should not preclude investment by the conservation community in the long-term process of recognizing and engaging with local people’s identities—their institutions, cultures and individual preferences. These slower and sometimes more challenging processes can allow for an intrinsic motivation that can develop into long lasting “cultures of conservation”<sup>73</sup>.

This project recognizes the value of the two-pronged approach (intrinsic and extrinsic). Initially the project employs an “alternative livelihood” approach as a key incentive to engage communities more immediately in supporting the project sites’ conservation interventions. Livelihood- and development-related interventions have been categorized as more extrinsic because of the social difficulty of shifting livelihoods when they are a central part of local identities and social structures<sup>74</sup>. Nevertheless, they are an effective and widely-employed strategy. The project budgets a significant amount for such approaches (indicatively spelled out under Outputs 2.1.3 and 2.14, with precise priority activities to be refined through the updated Theory of Change and further local consultation at each project site). Indeed 34% of the total budget from Component 2 is allocated to activities supporting development and livelihoods of the local population:

**TABLE 12: LOCAL POPULATIONS IN THE PROJECT AREA AND ASSOCIATED PROJECT BUDGET**

Site	Total Site Level Funding (US\$)	Funds for Communities (US\$)*
Bemanevika	277 200	90 000
Lac Alaotra	242 200	120 500
Makirovana	322 200	125 000
Ranobe PK 32	352,200	125 000
Point à Larré	322 200	100 000
Complexe Tsimembo	332 200	123 500
Mang Ambaro	350 853	91 453
Mang Boanamaro	248 000	85 000
Mang Morondava	257 961	70 000
<b>Sum</b>	<b>2 705 014</b>	<b>930 453</b>

\*This allocation could be revised following discussions

<sup>70</sup>Adapted from Pretty (1995) in: Cetas, E.R., and Yasué, M. (2015). A systematic review of motivational values and conservation success in and around protected areas.

<sup>71</sup>Cetas and Yasué (2015).

<sup>72</sup>Cetas and Yasué (2015).

<sup>73</sup> See e.g. Souto, T. et al. (2014). Classifying conservation targets based on the origin of motivation: implications over the success of community-based conservation projects. *Biodiversity and Conservation* 23:1331–1337.

<sup>74</sup>Hill et. al (2012). The interaction between seaweed farming as an alternative occupation and fisher numbers in the Central Philippines. *Conservation Biology* 26:324–334. Cited in Cetas and Yasué (2015).

Clearly, though, the need is greater than the GEF budget alone can (or is intended to) address, hence the importance of co-financing under Component 2 – both that which has already been secured and that which is still to be identified.

Extensive case studies in Madagascar and elsewhere demonstrate the value of granting rights over land and natural resources for communities to manage. This has yielded management structures that balance conservation and development needs, and generate the conditions associated with the maintenance of ecosystem services<sup>75</sup>. This is another mechanism not employed directly through this project, but by the government working with other partners in Madagascar forming the baseline for the delivery of other extrinsic benefits.

The project strategy also incorporates elements of communication and education (especially with co-financing and partners at Bemanevika NPA and Lake Alaotra NPA, and via project interventions at Makirovana Tsihomanaomby Complex PA, Makirovana Tsihomanaomby Complex PA, Ranobe PK 32 PA, Tsimembo Manambolomaty PA, and Mangrove micro site in Morondava – see detail of Component 2 within ‘the GEF alternative’). This type of intervention is categorized as “intrinsically motivating incentives” perhaps because they require more sustained contact between stakeholders, conservation organizations and existing local institutions<sup>76</sup>. These opportunities to interact between local communities and conservation stakeholders can help to foster greater self-identification with the conservation project and create opportunities to enhance both vertical and horizontal social capital with external agencies (Cardenas et al. 2000). Educational outreach programs can foster group identity, pride and support for conservation projects<sup>77</sup>. Furthermore, studies within Madagascar have highlighted the importance of positive communication between communities and park staff<sup>78</sup>.

The project recognizes the short- and medium-term need to engage communities to realize the project objectives, as well as the objectives of SAPM more broadly; hence the Commission will progressively move further up the participation ladder as the enabling environment allows. To be clear, as stated above, engagement with enabling structures and incentives for communities has been part of the PA expansion strategy from the beginning – but the approach is being constantly refined and improved as experience matures.

### Partnerships for Development and Protected Area Management

Partnerships are essential to realizing the SAPM Commission’s local engagement approach. The partnerships approach is an effective strategy because of the geographic and socio-economic scope, and the cost effectiveness and benefits derived from the level of specialization and local familiarization required. An example of a partnership in this regard is with the *Fondation Tany Meva*<sup>79</sup>, which for example has delivered 93 community projects linked to the PA network in 3 areas: Mikea, Amoron i Onilahy (Plateau Belomotse) complex and Tsimanampetsotse (Plateau Mahafaly). Another example from central and northern parts of the country respectively, the PAs Anjozorobe-angavo and loky-manambato are co-managed by the Malagasy NGO Fanamby and local community institutions, working largely to engage the private sector for example through tourism joint ventures<sup>80</sup>. The Tsimembo-Manambolomaty wetland and dry forest complex is co-managed by The Peregrine Fund and local communities, with a focus on empowering traditional users to manage their resources more sustainably (e.g. supporting methods such as *tompondrano*, a traditional local keeper of the lakes)<sup>81</sup>. Other examples are noted within the description of the baseline. The project will continue to make use of such partnerships as a key approach in realizing the poverty alleviation and rural development objectives of the SAPM network (as well as securing the desired co-financing noted in particular under Component 2).

### Monitoring, Evaluation and Applied Research

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<sup>75</sup>Aubert et al (2013).

<sup>76</sup>Citing: (1) Brewer, C. (2002.) Outreach and Partnership Programs for Conservation Education Where Endangered Species Conservation and Research Occur. *Conservation Biology* 16:4–6; and (2) Danielsen, F., et al. (2005). Monitoring matters: examining the potential of locally-based approaches. *Biodiversity & Conservation* 14:2507–2542. Both in Cetas and Yasué (2015).

<sup>77</sup>Sommerville et al. (2010) in Cetas and Yasué (2015).

<sup>78</sup>Ormsby and Kaplin (2005).

<sup>79</sup>See Gestion Durable des Ressources Naturelles. Available from [here](#).

<sup>80</sup>Gardner et al. (2013).

<sup>81</sup>Ibid.

Various researchers working within Madagascar have highlighted the need for increased alignment with the applied research community if the combined pursuit of conservation and poverty alleviation is to have a solid, evidence-informed foundation<sup>82</sup>:

“The paucity of empirical quantitative and qualitative data presented in the [Madagascar NPA] case studies, even after 10 years of the Durban Vision, draws attention to a glaring weakness of these new protected area initiatives; they do not sufficiently monitor their ecological, cultural and socio-economic impacts, either in the short or long term. If we fail to evaluate the outcomes of our actions, then we will not be able to maximize their effectiveness in terms of conserving biodiversity or alleviating poverty, or optimize our interventions through an adaptive management cycle. However, the design and implementation of robust monitoring programmes requires applied research capacity that may not be available to managers.”

Within the project, considerable emphasis is placed on M&E, linked to the applied research community (via CSAPM), and partnerships that can support these ends. An important potential mechanism to be explored at inception stage will be the application of experimental design approaches – discussed above. Also, indicators of PA “effectiveness” and “sustainability” should be defined site-by-site amongst the stakeholders, given the wide potential interpretations of these terms and the need to engage local actors in a shared vision.

In any case, lessons from examples already within the project sites and elsewhere in Madagascar will be drawn on for designing and refining the community outreach and engagement approach employed by the project. It will evolve through experience, and follow the good practices established by the SAPM Commission and internationally. Local community participation will bring invaluable local knowledge to the project, help to develop rules with the community that will ensure better compliance in the future, increase the long-term sustainability of the project, reduce costs, support poverty reduction, and increase chances of success. Collaboration and potentially joint management approaches need to be further developed through the project, specifying through consultations and site-level analysis how local communities will be actively involved but also how the project will impact their livelihood and ensure sustainable use of biodiversity. These experiences will directly benefit the whole SAPM network as experiences are fed back to national level.

#### A. 5. Incremental /Additional cost reasoning

The project seeks to enhance the management effectiveness - including operational effectiveness and ecosystem representation - of Madagascar’s protected area network, with due consideration for its overall sustainability, including ecological, institutional and financial sustainability. The table below provides a summary of the project’s incremental cost reasoning.

**TABLE 13: INCREMENTAL COST REASONING**

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
<b>BENEFITS</b>			
<b>Global benefits</b>	Under the ‘business-as-usual’ scenario:  <u>(i) Whole system</u> -- the NPAs are not declared or remain in a state of flux, therefore the Madagascar PA system continues to lack balanced representation of ecosystems - particularly mangroves. Financial resources dedicated to the management of NPAs (not to mention existing PAs) will continue to be insufficient. The expansion of the SAPM lacks coordination as CSAPM remains a pilot idea without support and formalised	The project, with support from GEF, the GoM and co-financing partners such as WWF, WCS, MBG, will produce the following changes:  <u>(i) Whole system</u> -- will remove key barriers to ensuring improvement in the effective coverage of the SAPM, primarily consisting of inadequate overall coordination, and capacity, plus the limited number of NPAs and mangrove sites that demonstrate models for successfully balancing conservation and development	The GEF increment will ensure that Madagascar’s protected area estate can make a much more significant contribution towards conserving its globally unique set of ecosystems and several threatened species. The terrestrial ecosystems that are currently under-represented in the terrestrial PA network (esp. mangroves) will have increased coverage under formal protection, mitigating direct threats to them, to the species that they harbour and the ecosystem services that they

<sup>82</sup> Gardner et al. (2013).

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	<p>mandate, or dissolves. The risk of creating more paper parks will be enhanced if specific capacities for managing the PA expansion process are not fostered. Efforts to expand Madagascar's PA system will continue to show an unbalanced ecosystem representation without overall coordination. Furthermore, important mangrove areas will continue to be lost. Madagascar contains approximately 2% of the world's mangroves, of which more than 20% has been deforested since 1990. Since these are among the most carbon dense tropical forests, significant carbon sequestration potential will be lost.</p> <p><u>(ii) Demonstration sites</u> -- these sites struggle to establish or maintain recognition, without basic investments in staffing, management capacity, conservation measures, and local benefit development. The status quo is that populations of key species continue to decline, with minimal alternatives offered to local communities, and lack of monitoring and reporting of the conservation toll taken. The lack of showcase NPAs and mangrove sites means that the potential of such locations is not widely understood, nor capable of creating momentum and interest in future investments. Job opportunities are not created in or around the PAs. Models for alternative livelihoods around mangrove areas are not tested or refined. Communities may not be brought into, and may outright oppose, conservation efforts.</p>	<p>objectives. A secondary tier barrier is financing, which will be addressed via having a well-coordinated, well-managed and promising NPA system, which draws interest from national and international partners to further develop it. CSAPM will play a role in capturing and exchanging results and experiences across the SAPM, so that any new efforts are building from the best-available practitioners' knowledge.</p> <p><u>(ii) Demonstration sites</u> -- The GEF alternative enables the establishment of 6 NPAs and 3 mangrove sites as models of conservation and development potential, demonstrating different approaches to addressing the various challenges faced by other such sites. Monitoring, evaluation, reporting and communication will ensure that other temporary NPAs and mangrove areas will be informed of and encouraged by the results of these demonstration areas. Partners working at site scale with strengthen their working relationship and provide platforms for up-scaling, working with the overall coordination support of CSAPM.</p>	<p>render. This will enhance the national contribution to the achievement of global Aichi Targets 11 on protected areas, but also Target 12 on species, Targets 1 and 2 on the realisation of biodiversity values, Target 14 on ecosystem services, and Target 15 on climate resilience. Halting the loss of mangrove areas will enhance Madagascar's ability to sequester carbon.</p> <p>At demonstration sites, the project will provide protection to globally important biodiversity through the formal gazettement and improved management of 354,859 hectares in 6 currently temporary NPAs and 3 micro-mangrove sites. Formal proclamation will afford the legal protection of habitats that harbour Critically Endangered species such as the Madagascan pochard, Alaotran gentle lemur, and Coquerel's Mouse-lemurs. It will enable conservation of the <i>Mungotictis decemlineata lineata</i>, a subspecies of the narrow-striped mongoose that may be entirely restricted to one of the project's NPAs (RPT). The project will afford special protection to 3 valuable mangrove areas, among which are CI Hotspots, WWF Ecoregions, and globally-valued ecosystem services including carbon sequestration. Together, the 9 demonstration sites are designated by the world's most important conservation classifications, including AZE, KBAs, IPAs, and more.</p>
<p><b>National and local benefits</b></p>	<p>Under the 'business-as-usual' scenario, efforts to reconcile competing demands for land across Madagascar will gradually foreclose the current opportunity for creating NPAs in the 93 sites that were deemed strategic from a conservation perspective. Potential national and local benefits that could be derived from PAs will be foregone. Ecosystems in the temporary PAs and mangrove sites will become increasingly degraded</p>	<p>The project will engage a variety of stakeholders in building and strengthening Madagascar's SAPM and mangrove conservation sites. It will support the establishment of CSAPM including related capacity building of officials and technical specialists involved in the expansion of the PA network. At individual sites, management capacity will be established and strengthened through the project,</p>	<p>At national level, the establishment of CSAPM will generate benefits through the capacity that will be built, improvements delivered through better coordination and communication, including greater cost effectiveness. The project is expected to yield local benefits through improvement in the living conditions of communities living in and around the NPAs and</p>

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	<p>and will cease to render essential services to local resource users. Over time, this will represent a loss to the Madagascar economy due to foregone tourism revenue, and to local stakeholders, decreasing livelihood opportunities. Jobs that could be derived from the PAs, and basic ecosystem services such as water filtration, especially from the mangrove areas, will be lost. Potential opportunities for mangrove areas to generate carbon payments through REDD+ would be limited or lost.</p> <p>At individual demonstration sites, the survival of Critically Endangered species would be at risk, including key species of lemur. Apart from being primates found nowhere else on the planet, as well as a source of national pride and symbolism, lemurs are an important source of tourism interest -- and therefore revenue generation potential. The fact that RPT has the only known subspecies of a narrow-striped mongoose, and that Bemanevika NAP harbours the Madagascan pochard, offers unique potential for niche high-end tourism markets -- which would be foregone without systematic protection and conservation measures put in place by the project. At the mangrove sites, fisheries enhancement and shrimp production - important to the local economy - would decline without sound management put in place.</p>	<p>which will expand the number of nationals who become specialists and/or gain experience in various aspects of PA planning and management, both at the field level and centrally (this has been a shortcoming of previous PA capacity building efforts). Donor and other external funding will be more wisely applied to the SAPM, with better coordination and oversight of the network. Communication improvements supported by SAPM would ensure that lessons are learned and that progressively better management practices are applied throughout the network.</p> <p>The formalisation of NPAs at the 6 sites will include stakeholder consultation, the identification of socio-economic benefits and the application of safeguards for possible negative effects. At the site level, jobs will be created through investments in training and engagement of PA personnel and potentially community guides (depending on inception phase outcomes). Opportunities for alternative livelihood activities on the periphery of the PAs and within mangrove areas following sound management planning, will also generate national and local benefits. Mangrove areas will be able to sustainably generate products such as shrimp, providing economic benefits to the local economy.</p>	<p>mangrove sites, via the sustained delivery of ecosystem services and livelihood opportunities.</p>
<b>COST</b>			<b>GEF + mobilised co-financing beyond the baseline</b>
<b>Component 1:</b> Improvement of PA policy and governance	<p><b>Baseline:</b> \$8,902,000 million  <b>Sources:</b> \$7.202 M Government of Madagascar (GoM, i.e. the Ministry of Environment and Forests / Directorate General for Forestry, Ministry of Agriculture and other national members of the CSAPM), \$950k MBG, \$400k WWF, \$350k WCS</p>		<p><b>Increment:</b>  GEF \$666,667</p>
<b>Component 2:</b> Effective management of new PAs and	<p><b>Baseline:</b> \$22,355,429 million  <b>Sources:</b> GoM, WWF, WCS, DCT, Peregrine Fund, Blue</p>		<p><b>Increment</b>  GEF \$2,775,014</p>

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
critical mangrove sites (in existing PAs)	Ventures		
<b>Component 3:</b> Knowledge management and public awareness	<b>Baseline:</b> \$12,949,980 <b>Sources:</b> GoM, WWF, WCS		<b>Increment</b> GEF \$277,619 UNEP \$200,000 = \$477,619
Project management	<b>Baseline:</b> \$1.2 million <b>Sources:</b> \$1.2M GoM		<b>Increment</b> GEF \$185,965
Total	<b>Baseline:</b> <b>Sources:</b> \$2.2M GoM \$3.7M WWF \$4M WCS \$950K MBG \$400 CI \$400k DCT \$150k Peregrine Fund \$200k Blue Ventures = \$12,000,000		<b>Increment</b> GEF \$3,905,265 UNEP \$200,000 = \$4,105,265

The individual project sites selected for demonstration through the project hold global significance at a considerable scale, as indicated by their inclusion in key site-based conservation classifications and other measures of biodiversity importance (see section above on Introduction to the Project Sites). The balance of representation in ecosystems within the protected areas system will be improved by the project. The below preliminary assessment will be refined through a gap analysis in the inception phase, indicating areas for future investment to further improve the balanced representation of the system, coordinated by CPANM.

**TABLE 14: LIST OF ECOSYSTEMS IN MADAGASCAR**

Ecosystem	Baseline	The project alternative
<b><i>TROPICAL MOIST FORESTS</i></b> - Coastal rainforest - Lowland rainforest - Montane rainforest - Cloud forest - High elevation scrub - Sambirano forest	Well represented	Well represented (same)
<b><i>SOUTHERN AND WESTERN DRY FORESTS</i></b> - Dry deciduous forest - Limestone tsingy formations - Tapia woodlands - Spiny forest	Well represented	Well represented (same)
<b><i>SECONDARY (MAN-MADE) COMMUNITIES</i></b> - Grasslands of the Hauts Plateaux - Palm savanna - Secondary forest - Western scrublands - Cactus scrub	n/a	n/a
<b><i>WETLANDS</i></b> - Lakes, marshes, swamps - Mangrove forests	Under-represented	Well represented (GEF investment)
<b><i>CORAL REEFS</i></b> - Coral reefs	n/a	n/a

**A.6. Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:**

The table below shows the external risks not mentioned in the PIF but that may undermine the achievement of the project general objective:

**TABLE 15: RISK ASSESSMENT**

RISK DESCRIPTION AND LEVEL	MEASURE TO BE UNDERTAKEN BY THE PROJECT
<p><u>Reliance on CSAPM Strategy:</u> The project intends to support the CSAPM as a national coordination body for the development of the NAPs, as well as to support the management of 9 NPAs in the field in partnership with different NGOs who are official ‘promoters’ and/or delegated ‘managers’ of those NPAs. While there are already good examples of partnerships working in the Madagascar context (mentioned throughout the text), some questions remain of how the CSAPM will be empowered to effectively coordinate multiple entities that are supporting NPAs. Is CSAPM willing to support different strategies and approaches on the development and management of NPAs? Will some ‘promoters’ and/or delegated ‘managers’ of NPAs be willing to adopt best practices that are developed by other organizations? Will these entities adopt a harmonized monitoring system to allow the CSAPM to compare the management efficiency of different NPAs?</p> <p><b>Low to medium risk</b></p>	<p>The PSC will provide substantial support to CSAPM including through a programme of training (Output 1.1.3), which will involve looking in detail at some of the challenges faced by the Commission. While a number of other entities are supporting the Commission in the achievement of its broader mandate, the PMU can provide technical backstopping as relating to project outputs e.g. on monitoring and replication of the NPA approach. The project will make related contributions via the M&amp;E activities at its 9 sites, as well as on-going reporting of lessons learned and development of best practices e.g. the experimental approach.</p>
<p><u>Migration and high rate of urban unemployment around the target sites:</u> The arrival of newcomers increases the pressures on natural resources at the PA sites, leading to overexploitation and competition over accessible natural resources. Sometimes, natives and migrants are fighting because the latter do not respect the habits and local customs, especially the Dinas (local collective agreements.) For mangrove sites, the risks are high because the surrounding cities are the big mangrove wood consumers (charcoal and timber). For other protected area sites, the risks are lower due to the presence of managers and effective law enforcement.</p> <p><b>Low to medium risk</b></p>	<p>The project will build project proponents capacity in conflict management; establish promising ILCs especially for vulnerable populations so that they depend less on forest or mangrove natural resources; promote alternatives to mangroves, such as <i>Acacia</i> sp and <i>Eucalyptus</i> sp. for wood energy production (e.g. in the case of Ambaro and Boanamaro); strengthen collaboration between all stakeholders in site conservation and development, especially involving the services in the Ministry of Justice and judicial officers; undertake awareness-raising and accompaniments of VOIs; and integrate PAs and mangrove sites in local territorial strategies (SRAT and SAC)</p>
<p><u>Institutional instability:</u> Frequent changes of officials often result in the ending of actions that have been undertaken and newly appointed officials are often lost as far as objectives are concerned.</p> <p><b>Medium risk</b></p>	<p>Establishing an effective Project National Team to guide the project and sustain collaboration with government entities, since the project team will remain in place despite political changes</p>
<p><u>Other problems linked to Political Instability:</u> Various risks are presented by an often tumultuous and changing political situation in Madagascar. Despite this, the NPAs are granted with permanent decrees of creation through the commitments made by the Senior Governmental Officials (executive, legislative), so the project is insulated to some degree. The present COAP Law was enacted in February 2015. It reinforces particularly the community-based PAs, Category V and VI, thereby allowing direct management of the sites by the local population. At the level of the decentralized territorial authorities (Region, for e.g. Boeny, Menabe), actions for the territorial development plan</p>	<p>For better project governance and in order to spare the project from institutional changes or sudden political uncertainty, project management arrangements include various capacity-building activities at the local, central, and regional levels. The project team also will seek government commitment at very high levels, such as a commitment from the President for the creation of terrestrial and marine protected areas, and it will work to ensure project visibility both nationally and internationally.</p>

RISK DESCRIPTION AND LEVEL	MEASURE TO BE UNDERTAKEN BY THE PROJECT
<p>(SRAT for the regions, SAC for the Communes) are in progress. However, populist speeches of political authorities (e.g. electoral campaigns in the Alaotra Lake PA) that do not support PA activities do represent a project risk.</p> <p><b>Medium to high risk</b></p>	
<p><u>Sectoral conflicts of interest:</u> Various sectors have their own interests, especially mining and fossil fuels, which are the crucial challenges for Madagascar's development. Most of the targeted PAs are full of resources in their sub-soil and as soon as information about discovery is heard, people are illicitly and illegally entering the PAs and causing enormous damage. The recent discovery of precious stones in the PA of South Anjanaharibe caused extensive forest clearing and mining and the large number of newcomers significantly disrupted wildlife populations.</p> <p><b>High risk</b></p>	<p>Under Output 1.1.2, the project will work to strengthen the effectiveness of CSAPM, the Mangrove Commission, and sectoral subcommittees (Forestry-Land, Forestry-Mining or oil, Forestry-Fishing) in resolving conflicts, especially those involving governmental VIPs.</p>
<p><u>Lack of objectivity and clarity regarding PA funding:</u> Currently, two foundations in Madagascar fund Protected Areas and biodiversity conservation programs. However, at present only ten PAs in the country receive funding, and the eligibility criteria are neither clear nor transparent (i.e. there are no call for bids, awarding of funding appears to be highly subjective, etc.)</p> <p><b>Medium to high risk</b></p>	<p>The project will work to integrate the SAPM into the boards of these two foundations, and especially to include PAs managers or their representatives on the boards.</p>
<p><u>Language Challenges:</u> A practical challenge presents itself from the PPG phase of the project, with documents being variously developed in French and English and translated back and forth at different stages of development. There is a risk some nuance or detail has been lost along the way, or translated in slightly different manners by various translators and copy editors. It is likely to be a small risk but sometimes the implications only present themselves further along in the project.</p> <p><b>Low risk</b></p>	<p>It will be essential once the finally approved project documents are translated back into French that all details are re-checked and revised as required at the inception stage. An acceptable mechanism for version control of any documents to be presented and/or reviewed in both languages should be implemented by the PMU. It would be ideal if at least 1 PMU staff member (or a trusted partner) can be identified who is fluent in both languages, given the requirement for some reporting activities to be carried out in English.</p>
<p><u>Project pacing:</u> Complexities in balancing the need for community consultation at 9 diverse project sites will present a challenge to creating the appropriate definition and pacing of activities within the timeframe identified for the proposed GEF project. Previous (non-GEF) projects in Madagascar have been criticized for maintaining an external or politically motivated timetable at the cost of engaging communities.</p> <p><b>Low risk</b></p>	<p>The priority is to ensure an appropriate level of engagement at each of the 9 sites, and PMU staff members will be incentivized to maintain this approach as a priority. The PMU will need to obtain necessary guidance from the PSC to adaptively manage the project, and e.g. to seek no-cost extension of or amendments to the project as mitigating measures required to ensure that the project deliverables do not outpace community consultations, willingness or ability to engage.</p>

#### A.7. Coordination with other relevant GEF Financed Initiatives

The project will actively collaborate with these and other relevant GEF-financed initiatives, at a technical level and through the SAPM Commission:

- The UNEP-GEF project Conservation of Key Threatened Endemic and Economically Valuable Species in Madagascar: This project aims to develop and implement a strategy for the conservation and sustainable use of 21 key species (20 forest species and one species of bird), in addition to current strategic emphasis on protected areas management<sup>83</sup>. The project baseline notes that almost all initiatives to conserve biodiversity in

<sup>83</sup> Project detail available via the GEF projects database at [https://www.thegef.org/gef/project\\_detail?projID=5352](https://www.thegef.org/gef/project_detail?projID=5352).



Madagascar adopt an ecosystem-based approach and work through protected areas; this ecosystem-based approach is essential as the first line of biodiversity conservation. However, as significant species of global and national importance are recognized to be outside protected area systems, an approach that focuses on the conservation of key and valuable species is also recognized as necessary to ensure global biodiversity conservation in the country.

- The UNDP-GEF project A Landscape Approach to Conserving and Managing Threatened Biodiversity in Madagascar with a Focus on the Atsimo-Andrefana Spiny and Dry Forest Landscape<sup>84</sup>: This project is an initiative of the Malagasy Government through the Ministry of Environment, Ecology and Forestry (MEEF), in collaboration with the UNDP to implement a strategy to integrate biodiversity conservation in the Atsimo-Andrefana region (specifically in three districts) into the economic development activities in this region. The project is supporting conservation and sustainable use of biodiversity by developing a collaborative governance framework for sectoral mainstreaming and devolved natural resource management, and will share lessons learned, particularly for the demonstration sites.
- The UNDP-GEF project Madagascar's Network of Managed Resource Protected Areas<sup>85</sup>: This project currently under implementation is designed to expand the PA system of Madagascar by developing a sub-network of managed resource protected areas in represented ecological landscapes, co-managed by local government and communities and integrated into regional development frameworks.
- The World Bank-GEF project Support to the Madagascar Foundation for Protected Areas and Biodiversity (through Additional Financing to the Third Environment Support Program Project (EP3))<sup>86</sup>: This project is currently under implementation; coordination with this project will be done through the SAPM Commission and DAPT.
- The Alliance for Zero Extinction (AZE) project Conserving Earth's Most Irreplaceable Sites for Endangered Biodiversity: The proposed project will undertake information sharing and collaboration with this AZE project at those sites that have received AZE designation.
- The UNEP-GEF project Enhancing the Conservation Effectiveness of Seagrass Ecosystems Supporting Globally Significant Populations of Dugong Across the Indian and Pacific Ocean Basins (Short Title: The Dugong and Seagrass Conservation Project): The proposed project will seek collaboration links at the field level.
- The UNEP-GEF project Support to GEF Eligible Parties (LDCs & SIDs) for the Revision of the NBSAPs and Development of Fifth National Report to the CBD - Phase 1<sup>87</sup>: Madagascar will internally coordinate protected areas input into the NBSAP, including seeking opportunities for mainstreaming, resilience building, access and benefit sharing, and other priorities reflected nationally and in the Aichi Targets.
- The UNDAF 2015-2019 aims to actively contribute to the promotion and fulfilment of human rights of all of the Malagasy population, particularly the most vulnerable, and the promotion of the culture of peace for better security, and to mobilize development partners to coordinate actions in favour of inclusive growth to a favourable social and economic progress. One priority is to strengthen the strategic and operational management capacity of the environment sector and the incorporation of the main parameters of sustainable development into sectoral policies.
- The UNEP-GEF project Global Forest Watch 2.0: The project objectives are the implementation of the GFWW method and the practical use of the forest Atlas to improve the management of forests and natural resources.

## **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

### ***B.1 Describe how the stakeholders will be engaged in project implementation***

Through their involvement in the various NPA management committees or in a consultation platform (COE, COGES, platform of participative management) or programs according to their respective goals and visions, all stakeholders including PA management administration at all levels, NGOs and associations will participate in the project activities. The mandates and roles of the key project stakeholders are shown in the following table:

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<sup>84</sup>[https://www.thegef.org/gef/project\\_detail?projID=5486](https://www.thegef.org/gef/project_detail?projID=5486)

<sup>85</sup>[https://www.thegef.org/gef/project\\_detail?projID=3687](https://www.thegef.org/gef/project_detail?projID=3687)

<sup>86</sup>[https://www.thegef.org/gef/project\\_detail?projID=3773](https://www.thegef.org/gef/project_detail?projID=3773)

<sup>87</sup>[https://www.thegef.org/gef/project\\_detail?projID=4513](https://www.thegef.org/gef/project_detail?projID=4513)

**TABLE 16: STAKEHOLDER ENGAGEMENT**

<b>Stakeholders</b>	<b>Traditional Mandate</b>	<b>Role in the Project</b>
Committee for the System of Protected Areas of Madagascar (CSAPM)	To complete the 2003 Durban Vision by designing tools for the creation of NPAs. Addressing issues related to the process of permanent protection. Validation of PAG at the national level	Advisory and technical support body of the project (see Annex H) that works closely with the National Project Team. Various stakeholder groups are going to be engaged through CSAPM and its relevant sub-committees
Project Steering Committee (COFIL)		Overall strategic steering structure (See Annex H)
Directorate of Inland Protected Areas (DAPT)	Sovereign authority of the Government in the PAs and terrestrial biodiversity management	Project Management Unit (PMU) See Annex H
Project National Team		Technical implementation team See Annex H
Inter-Ministerial Committees (CSAPM Sub-Commissions)	Resolving sectoral disputes at the PAs (oils, land, mines, fisheries)	Harmonization of activities, facilitation, and conflict management
Steering and Monitoring Committee (COS) and Steering and Evaluation Committee (COE)	Full part of the PA's institutional structures: Advisory, steering, and deliberation structure at the regional level	Advisory Structure and deliberation at the regional level
Regional Directorate of Environment, Ecology, Sea, and Forestry (DREEF) and its decentralized members	Sovereign authority of the Government in the PAs and terrestrial biodiversity management	Technical implementation team at the regional and local levels
Mangrove Commission	Advisory and decision-making body on mangrove ecosystems	Advisory and decision-making. Structure playing the role of CSAPM for mangroves
Regional Directorate of Fishery Resources and Fishery (DRRHP)	Sovereign authority of the Government in fisheries management	Sectoral partner in the project implementation, especially for mangrove sites
OTHER STD (Other Sectors)	Full part of the PA institutional structure (Member of the COE/COS), advisory and deliberation structure at the regional level	Advisory and deliberation structure at the regional level
Management and Monitoring Committee (COGES) and Management Committee (COGE)	Full part of the PAs institutional structure, has decision-making power on overall strategy related to PA activities implementation and management	Project implementation at the local level and relay-partner of ULGs
Local Grassroots Community (COBAs / VOIs)	Executive Local Unit to Conduct activities, it is an operational local structure or of management transfer like mangroves	Executive Local Unit of the project
Landscape Marine Management Association (LMMA)	National Network of Marines areas managed by local communities (VOIs and Fishermen's Association) and Ambaro Bay NGOs. It is a centre for daily experience sharing of marine site management	Local project implementation in Ambaro Bay
WWF, MBG, TPF, Blue Ventures, Durrell	NGOs managing one site or accompanying VOIs or initiating projects/programs	Key partners in project implementation at the sites with the COBAS
Germano-Malagasy-Environmental Program (PGM-E) / GIZ	Capacity-building for the population in decentralized natural resources management (TGRN and PA.) In the Boeny Region, reforestation program with the VOIs is the top priority	Project partner to achieve the results in Boanamaro
Committee for Reflection and Action for Development and Environment (CRADES)	NGO accompanying VOIs in the Ambanja District Training and sensitization of coastal populations on the importance and destruction of Cocoa due to rising water levels. Reforestation of rapid-growing trees (e.g. <i>Eucalyptus</i> ) Market gardening, identification of new rice fields and	Project implementation in building the competence and capacity at the local level (Ambaro Bay)

Stakeholders	Traditional Mandate	Role in the Project
	irrigation systems Developing Coal Burners' Association (encourage them to do green reforestation) Land and sea control with VOIs with other stakeholders (Ambanja Cantonment, Police and Gendarme)	
Rally of Operators to support Environment & Development of Agriculture (ROSEDA)	NGOs responsible for accompanying the CLBs; Provides support in the field of Environment and Development to CLB,	Project implementation in building the competence and capacity at the local level (Ambaro Bay)
Women Entrepreneurs and Environment of Mahajanga (FEEM)	Technical training in cooperation and management, reforestation, management of a craft store, donations of artisanal production materials, and securing drinking water supply	Project implementation in Boanamaro Bay with local Women's associations, specifically women's IGAs
Public Organization of Inter-communal Cooperation (OPCI) ALOKAINA	Inter-municipal cooperation structure particularly involved in the field of sustainable mangrove management	Project implementation in Menabe mangrove

### Effective Involvement and Consideration of Local Population's Interests

The project activities prioritize the involvement of local populations, especially the most vulnerable populations who are highly dependent on natural resources for their livelihoods. In relation to the institutional scheme at the PA level and the operational structure at the mangrove level (see Diagnosis report on Institutional Agreement), the COE or COGES (Local Management Committees) and the ULG (Local Management Unit or COBAs or VOI) are involved collaboratively and directly in a type of shared governance between themselves and NGO managers (in the role of support and accompaniment.) The local population participates indirectly through their representatives in the COGE and COE at the regional level. However, this representation is limited in most cases to educated men, while women, youth, and illiterate persons are poorly represented.

For this reason, activities that directly affect all groups will be initiated in each project intervention site with associated capacity building. The population should not only play a minor role, and they must be involved in activity monitoring and evaluation activity through participatory monitoring actions including all affected social categories (some amount of money is allocated in most activities on the monitoring and evaluation component (see Annex F1.). Participatory monitoring and evaluation activities will allow regular tracking of trends that local population can see about the project as well as the trends between conservation targets at each site (see Annex A) and improvements in local population's welfare (health, access to drinkable water, and education) from the proposed socio-economic activities. Indigenous and Local Communities (ILCs) will play a critical role in the project, and tracking of project activities and results will be based on both conservation targets and the satisfaction of local population.

### Gender Considerations

In Least Developed Countries (LDCs) like Madagascar, women are generally marginalized both in local and national decision-making processes compared to men even though they have a very important place in the family life. Women are not represented in the community-based associations at the project sites except for one in the Ambaro area (89 men and 261 women out of 350 members, see Diagnostic report, p. 263.) Illiteracy is one inhibiting factor to women's participation in social and community structures. Of the 126 community-based associations or COBAS or VOIs in 9 intervention sites, only one is a pilot model in an association or site management, the FIZAMITI VOI (Fikambanana Zanaka Antoahampano Miaro ny tontolo Iainana.) The VOI is led by a female teacher who demonstrates the quality of a woman if she is accepted and educated. However, because women play a key role in the households and in the community of the intervention sites, namely in housekeeping, child health and education, fetching water and collecting firewood, taking care of vegetable cultivation and gardens, of small farming and basketry, women and other vulnerable groups are targeted in the socio-economic development actions in the proposed activities (see Annex A Logical Framework and Budget Annex F1).

The proposed project activities include all aspects of a gendered approach. The training provided through the three project components will be structured to include women; and gender activities are proposed for each site (see Annex A Logical Framework and Annex F 1.) Project indicators will be disaggregated by sex when possible, and gender concerns will be

incorporated in the planning of specific activities. Besides reducing gender inequality, activities also are addressed to all vulnerable social categories, which will promote the empowerment of women and other vulnerable groups by soliciting their contributions to local community life.

The project situation analysis has developed a gender approach based on the results of a survey conducted by INSTAT<sup>88</sup> that provides two assessment indicators on the status of women: 1) control over women's income, and 2) participation in decision-making.

### 1) Control Over Women's Income

Decision-making power on the use of women's income is considered a direct indicator of the status and level of financial autonomy of women. Women were asked who had worked during the past 12 months and earned some money, and who made decisions on the use of this money. The following table shows an excerpt of the results for the regions targeted by the project.

**TABLE 17: CONTROL OVER WOMEN'S INCOME (% OF WOMEN AGED 15-49 YRS OLD, CURRENTLY IN UNION)**

	Persons Who Makes Decisions on the Use of Money Earned by Women (%)				
	Mainly the Woman	Husband / Partner and Woman Together	Mainly Husband / Partner	Other	Gap
<b>Place of Residence</b>					
Urban Entity	42.4	52.6	3.8	0.5	0.7
Rural Entity	30.2	65.4	3.8	0.2	0.4
<b>Project Regions</b>					
Melaky	34.2	64.4	0.7	0.0	0.7
Menabe	33.0	59.5	6.7	0.5	0.3
Atsimo Andrefana	27.8	65.3	6.0	0.2	0.7
Alaotra Mangoro	42.2	55.0	2.8	0.0	0.0
Analanjirifo	18.3	74.0	5.3	0.0	2.4
Sava	62.7	30.7	5.7	0.0	0.9
Diana	35.3	62.3	2.0	0.0	0.5
Sofia	14.3	84.0	1.1	0.1	0.5
Boeny	33.0	61.9	4.3	0.0	0.7
<b>Overall country</b>	<b>32.6</b>	<b>62.5</b>	<b>3.8</b>	<b>0.3</b>	<b>0.5</b>

Source: EDSMD-IV Madagascar 2008 – 2009. INSTAT/ICF Macro. Excerpt Table 15.2, page 270

Thus, at the national level only 32.6% of women have primary decision-making authority on the use of their earnings, while decisions are made jointly with the husband or partner 62.5% of the time and by the husband or partner alone 3.8% of the time. The nine regions targeted by the project generally follow the national general trend, with some notable differences:

- Women have more financial autonomy in two regions: 62.7% of cases in the SAVA region (Makirovana PA) and 42.2% in the Alaotra Mangoro region (Lake Alaotra PA.) In general, the SAVA regions are nearly like in Androy (62.0%) and Atsimo Atsinanana (56.8% of the cases)
- Three regions have a situation where women's financial independence is lower:
  - o 14.3% in Sofia (Bemanevika PA)
  - o 18.3% in Analanjirifo (Pointe à Larrée PA)
  - o 27.8% in Atsimo Andrefana (Ranobe-PK 32 PA)
- In the Diana region (Ambaro Bay) and Melaky (Tsimembo Manambolomaty PA and the micro-mangrove of Masoarivo), financial autonomy is relative close to the national average

### b) Women's Participation in Decision-Making

<sup>88</sup> INSTAT and IFC Macro, 2010: Survey on Population and Health in Madagascar 2008 – 2009. Antananarivo, Madagascar.

To assess the role and level of women’s involvement in decision-making at the household level, the survey asked questions to find out who has the last word in some decisions such as health care of women, large household expenses, purchase of daily needs, and visits to women's family or parents.

**TABLE 18: WOMEN’S PARTICIPATION IN DECISION-MAKING, EITHER ALONE OR JOINTLY WITH THEIR SPOUSE / PARTNER (% OF WOMEN FROM 15-49 YRS, CURRENTLY IN UNION)**

	Personal Health Care	Important Household Expenditure	Purchase of Daily Household Needs	Visit to Own Family/parents	Participates in some decisions	Does not participate in any decisions
<b>Residence Location</b>						
Urban Entity	89.3	83.2	94.3	89.8	70.2	1.2
Rural Entity	87.7	86.4	93.6	88.6	72.5	1.8
<b>Project Regions</b>						
Melaky	86.5	85.5	95.5	90.5	73.2	1.8
Menabe	82.7	91.0	94.1	93.4	72.1	1.3
Atsimo Andrefana	92.6	88.4	93.8	92.8	83.0	3.2
Alaotra Mangoro	89.9	85.3	95.4	87.4	68.4	0.2
Analanjirifo	85.3	80.9	86.2	81.2	66.6	5.4
Sava	95.5	91.2	97.6	88.5	83.9	1.6
Diana	91.3	86.1	95.5	88.0	79.9	3.1
Sofia	91.6	87.1	94.4	95.9	79.1	1.0
Boeny	77.2	84.6	97.4	81.0	58.9	0.4
<b>Overall Country</b>	<b>87.9</b>	<b>85.9</b>	<b>93.7</b>	<b>88.8</b>	<b>72.1</b>	<b>1.7</b>

In over 90% of cases, women are involved, either alone or jointly with their husbands/partner, with purchases in daily household needs. For other types of decisions, women are also heavily involved (more than 80%), with some notable differences:

- For decisions related to women’s own health care, while 88% of women are involved in decision-making for the national trend, the figures are only 77% in Boeny (Boanamary Mangrove) and 83% in Menabe (Morondava Micro-mangrove)
- In general, for the four types of decisions, women are involved in 72% of the cases but this figure is only 59% in Boeny, 68% in Alaotra Mangoro, and 67% in Analanjirifo

### c) Vulnerable groups

Although there are important religious and cultural differences at the project sites, two hierarchies are common to all ethnic groups: age and sex. The differences between ethnic groups in this respect are differences in degree and scope rather than of kind. While the hierarchy of age is equal in the sense that all the people who live a long life reach the top of the hierarchy, the hierarchy of sex is less equitable. Women often remain householders while men migrate in search of employment, and although they play a critical role in the management and protection of natural resources (water, forests, fish and wildlife), women often do not retain resources rights associated with natural resources and their management of them. In addition, women, children and the elderly are often the most vulnerable among the poor and lack employment opportunities. Thus, by addressing resource management structures and improving the equitable distribution of benefits associated with protected area management (including sources of income and employment), the project will ensure that women are key beneficiaries of project activities. Furthermore, by financing the additional costs related to the preservation of natural resources and agro-ecological and hydrological services that are essential to local livelihoods, the project will reduce vulnerability to poverty and hunger at the national and local levels.

### ***B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):***

Madagascar is a country rich in natural capital but according to the World Bank in 2013, 92% of the Malagasy population live below the poverty line and only 11% of Malagasy households are food secure. The Malagasy socio-economic

landscape is characterized by a strong dependence on natural resources, with large areas of land used for rice production, extensive livestock breeding, and logging, much of which is unsustainable. Because natural resource use is so important to the vast majority of the rural population in Madagascar, and because the NPAs included in the proposed project focus on the human side of development (IUCN categories V and VI), the sustainable and fair use of natural resources is critical to the integrity and the sustainability of the targeted Protected Areas

The project will identify and implement sustainable and green alternative activities to reduce dependency on the unsustainable use of natural resources (particularly from forests and mangroves), thus improving the livelihoods of vulnerable populations such as women, children, and PAPs (Populations Affected by the PAs). These activities will provide alternative solutions to forest and mangrove destruction through alternative livelihoods development, reforestation of rapid-growing plant species and strong awareness raising. The project will work with on-going actions through existing platforms of action and cooperation at the regional level (COS / COE, LMMA, OPCI) and at the national level (CSAPM, mangrove Commission, sectoral sub-committee) to meet the natural resources and livelihoods needs of the population. Locally, the project improves the welfare of the population living at the project sites in terms of livelihoods, health, water, education, and rehabilitation of small infrastructure for food production, and will include women and children and activities that take account of gender aspects, including basketry, family farming, the health of vulnerable populations, water access for children, women, and for the vulnerable population. The goal is to identify and implement appropriate and integrated activities that positively and sustainably improve livelihoods by decreasing dependency on natural resources and by promoting biodiversity conservation and related services (see Annex A project logical framework and budget for development activities in Annex F1).

The commitment of the project to generating socio-economic benefits is demonstrated by the fact that 33.8% of the total budget for Component 2 (\$2,705,014) will be allocated to Indigenous and Local Communities (ILCs), with funding expected to range from 7% to 50% at the various sites. In addition, an average of 35.11% of the site level budgets will be devoted to vulnerable populations such as women, children, and PAPs (Populations Affected by the PAs).

### ***B.3. Explain how cost-effectiveness is reflected in the project design:***

The cost effectiveness analysis has been further developed since the PIF. Cost-effectiveness is enshrined in the project strategy and its choices, and the project is considered cost-effective for a number of reasons. First, the effectiveness of the SAPM Commission and the National Project Team will play a major role in the project cost effectiveness because they are the project backbone to achieve the project objectives. The existence of an effective and efficient project National Team will contribute to a strong project outcome through good coordination with other relevant projects and partners. In addition, Interministerial Order No. 52004/MEEFT/MAEP/MEM of 20 December 2010, pursuant to the creation, organization, and functioning of the SAPM Commission, states that the "SAPM Commission" was placed under the tutelage of the Ministry of Environment, Water, Forestry, and Tourism. Actually, the SAPM Commission is an advisory and collaboration body to foster cooperation between the various governmental ministries and stakeholders in the field of protected areas and ensure their participation in the Development Policy of the Protected Areas System in Madagascar. As such, to create synergy for the project and its stakeholders, the SAPM will be responsible for:

- Assisting the DGF, through the DAPT which is also the PMU, in establishing proximity coordination that involves other sectors in the planning and implementation of the Protected Areas System in Madagascar;
- Ensuring the convergence of national and local interests in the field of conservation and development;
- Supporting the DGF in communicating information and establishing a network of exchanges between the various sectors and actors at different levels, which will be strengthened by the communication officer of the project national team;
- Serving as a mediation platform for potential conflicts of interests related to protected areas between the sectors and the actors on protected areas;
- Making available to other actors standardized and simplified tools as well as management and evaluation information; and
- Supporting the DREEFs in the project implementation process.

The project design address cost-effectiveness in biodiversity management by:

- Strengthening the National System of Protected Areas and Mangrove Conservation, generating thereby significant scaling economies in the overall management of the Protected Areas System in Madagascar;
- Demonstrating and deploying effectively protected areas management, including at important mangrove sites, while ensuring the conservation of natural resources and biodiversity in the protected areas and the mangroves, and improving the local population's livelihoods;
- Sustaining the project results and knowledge management, and ensuring that achievements and positive experiences are valorized at the national level;
- Ensuring high-performing institutional arrangements that include effective management and project coordination.

Secondly, the project then aims to increase the benefits of protected areas and mangroves due to a strengthened system of protected areas, including mangroves, while diversifying conservation and development activities and by ensuring fair sharing of these benefits to all stakeholders. The proposed alternative livelihoods offer solutions to generate appropriate income that are sustainable. The project focuses on including women in implementing these economic activities.

Thirdly, the project will be continually learning and applying lessons from counterpart protected areas – particularly those managed through public-private partnership, on cost effective management strategies.

### **C. DESCRIBE THE BUDGETED M & E PLAN:**

The table below summarises the budgeted Monitoring and Evaluation (M&E) plan for the project. A well-designed and adequately costed M&E plan is a critical component of effective project management. Responsibility for effective M&E will lie with the project manager, supported by project team and external consultants as required. The detailed M&E work plan is described in Annex G.

**TABLE 19: BUDGETED M&E PLAN**

Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
Inception meeting	DAPT	5000	20000	Within 2 months of the project start-up
Inception Report	DAPT			One month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) at national and global level	DAPT, CSAPM, DREEF, Cantonment, operators / managers of PAs	Consider in components budget		Outcome indicators: Start, mid and end of project Progress / performance Indicators: annually
Semi-annual Progress/ Operational Reports to UNEP	DAPT, CSAPM, OPERATORS / MANAGERS	None		Within 1 month of the end of the reporting period i.e. before 31 January and 31 July
Project Steering Committee meetings and National Steering Committee meetings	DAPT, CSAPM	10000	50000	Once a year minimum
Reports of PSE meetings	DAPT			Annually
PIR	DAPT			Annually, part on reporting routine
On-site field monitoring visits	CANTONMENT, TRIAGE, OPJs, OPERATORS/ MANAGERS	60000	100000	As appropriate
Mid-Term Review /Evaluation	UNEP/DAPT, CSAPM with independent consultant	40000	15000	At mid-point of project implementation
Terminal Evaluation	UNEP/DAPT, CSAPM with independent consultant	40000	15000	Within 6 months of end of project implementation
Audit	DAPT/UNEP	40000	10000	Annually
Project Final Report	DAPT, CSAPM	None		Within 2 months of the project completion date
Co-financing report	DAPT			Within 1 month of the PIR


Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
				reporting period, i.e. on or before 31 July
Publication of lessons learnt and other project documents	DAPT, ONE, OPERATORS / MANAGERS	Considered in Component 3		Annually, part of Semi-annual reports & Project Final Report
<b>Total</b>		<b>195000</b>	<b>210000</b>	



### **PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)**

#### **A. GEF Agency(ies) certification**

**This request has been prepared in accordance with GEF policies<sup>89</sup> and procedures and meets the GEF criteria for CEO endorsement under GEF-6.**

<b>Agency Coordinator, Agency Name</b>	<b>Signature</b>	<b>Date (MM/dd/yyyy)</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email Address</b>
Kelly West, Senior Programme Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment		August 10, 2017	Adamou Bouhari, Task Manager Biodiversity/Land Degradation UNEP GEF Unit	+254 20 7623860	Adamou.bouhari@unep .org

<sup>89</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT

## ANNEX A: PROJECT RESULTS FRAMEWORK

Hierarchy		Indicator	Baseline	Mid-term target	End of Project target	Source of verification	Risks and Assumptions
<b>Project Objective:</b> Madagascar's strengthened network of PAs provides enhanced protection and better representation of key ecosystems, and deliver economic and environmental benefit to local communities	1	Representation of key ecosystems in the <b>permanent</b> Protected Area Network (% of total area covered by PAs)	<ul style="list-style-type: none"> <li>• Rainforest - 51.0%</li> <li>• Western Dry Forest - 24.4</li> <li>• South Western Dry Spiny Forest Thicket - 39.5%</li> <li>• Wetlands - 25.9%</li> <li>• Mangroves - 35.2%</li> <li>• Western Sub-Humid Forest- 9.3%</li> <li>• Tapia Forest - 21.1%</li> <li>• Littoral Forest - 38.0%</li> <li>• Western Humid Forest - 52.3%</li> <li>• South Western Coastal Bushland - 0.6%</li> </ul>	MT targets to be established at project inception	EOP Target to be established at project inception:	Calculation of ecosystem coverage by PAs in GIS	<p><b>Assumptions:</b> Government continues to view protected areas as a key strategy for meeting biodiversity conservation targets.</p> <p>PA staff has enough funding and skills to organize effective PA protection</p> <p>Local people use economic advantages presented by the PAs</p> <p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>- Political instability</li> <li>- Institutional instability</li> <li>- Insufficient level of income and benefits provided by the PAs to local communities</li> </ul>
	2	Level of protection of the New PAs: a) Total annual number of patrols b) Total annual number of discovered violations	a) To be established at project inception	a) MT target to be established at project inception	a) EOP Target to be established at project inception	Annual Reports of New PAs	
	3	Number (%) of local people benefiting from new PAs via CBNRM, alternative sources of income and ecosystem restoration	0	50% of Persons Affected by the Project (PAPs)	100% of PAPs	Random questionnaires of local people living around the new PAs	
<b>Component 1:</b> Improvement of PA policy and governance	1	Capacity of MEEF, SAPM Commission, and Inter-ministerial Committee to manage and develop PA Network (measured using the UNDP Capacity Scorecard)	Capacity scoring to be carried out at inception stage	Increase of 10% in each agency's capacity score	Increase of 35% in each agency's capacity score	UNDP capacity scorecard analysis	<p>Government agencies use knowledge and skills provided by the project and have enough government funding to implement their functions</p> <p>Government approves and implements policy suggestions developed by the project</p>
	2	Number of government decrees enacting the permanence of the target	0	3	6	Review of government decrees on the	

Hierarchy	Indicator	Baseline	Mid-term target	End of Project target	Source of verification	Risks and Assumptions	
	PAs				permanent PA status	<b>Risks:</b> - Insufficient funding and staff for National PA governance	
3	National conservation policy documents approved and implemented by government: a) Monitoring system for PA biodiversity and management effectiveness b) National mangroves conservation plan c) PA funding strategy	a) None b) None c) None	a) Approved b) Approved c) Approved	a) Implemented <sup>90</sup> b) Implemented c) Implemented	Analysis of government documents and reports		
<b>Component 2:</b> Effective management of new PAs and critical mangrove sites (in existing PAs)	1	METT Scores for 9 new Protected Areas (6 NPAs and 3 mangrove sites)  <ul style="list-style-type: none"> <li>• Bemanevika (38)</li> <li>• Lac Alaotra (33)</li> <li>• Makirovana - Tsihomanambo (50)</li> <li>• Ranobe/PK 32 (26)</li> <li>• Pointe à Larrée (44)</li> <li>• Ambaro Bay (20)</li> <li>• Tsimembo - Manambolomaty (46)</li> <li>• Boanamaro Bayis (19)</li> <li>• Morondava (19)</li> </ul>	10% improvement in METT score at each site	30% improvement in METT score at each site	Application of GEF METT at 9 sites		Target PAs have enough staff and government funding to implement IMPs over the long-term  CBNRM and alternative businesses provide sufficient benefits to encourage replication by local communities  Deterrent effect of law enforcement in the PAs is high enough to prevent poaching and other illegal activities
	2	# of Integrated Management Plans (IMPs) and area (ha) under approved and implemented IMPs	0 / 0	5 / 100,000	9 / 354,859		Analysis of approved IMPs
	3	Number of sustainable small business and CBNRM projects developed by local communities in cooperation with the PAs	0	20	40	PA annual reports	<b>Risks:</b> - Economic situation in the project sites may deteriorate - Weak law enforcement and management due to lack of government and donor funding
<b>Component 3:</b> Knowledge management and public awareness	1	Number of official documents and local community projects that use TEK	0	3	10	Analysis of policy documents Interviews of participants of local projects	Other project and PAs have interest in the lessons learned by this project  Local public is receptive enough

<sup>90</sup> Implemented means – have appropriate government funding; responsible officials; regular reporting on the implementation

Hierarchy	Indicator	Baseline	Mid-term target	End of Project target	Source of verification	Risks and Assumptions
2	Number of project lessons on PA management and CBNRM used by other projects and PAs	0	2	6	Requests from other PAs and projects References to the project experience	to environmental campaign and TEK  Risks: - Low interest of local population in environmental and PA issues - Low applicability of TEK in modern practices.
3	Percentage of population in the project sites that understands PA value and approves their activities	0	50%	80%	Random questionnaire of local communities in the project sites	

**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

**Comments from STAP**

COMMENTS FROM STAP	RESPONSE
1. The proposal is well presented overall. The structure is well thought through and demonstrates logical consistency among the levels. The baseline description is adequate for establishing a basis to track and assess positive global outcomes. The anticipated global environmental benefits are presented in a well-documented manner. The following points are offered for consideration to help further develop the proposal during the PPG stage.	No response required.
2. The project's title could perhaps be simplified and made more precise. As it stands now, it may lead to some confusion. Because the project's intent is to strengthen the system of protected areas overall, including at the site level and through the establishment of NPAs, perhaps the title should simply reflect this.	Title has been simplified to “Strengthening the Network of New Protected Areas in Madagascar”
3. The project objective is stated as: "The system of New Protected Areas (NPAs) is effective, it adequately represents marine/coastal, freshwater and terrestrial ecosystems (including the previously under- represented mangrove ecosystems), and it supports good site management, the sustainable exploitation of site resources, improved lifestyles for people around sites, and the ability of economic actors to obtain sustainable benefits from sites." This reads something akin to a catalogue of wishes. While these are all elements of the project, the objective is very broad and could be made more precise, particularly since multiple sites are involved with varying conditions characterizing them, and there are inherent challenges in attempting to reconcile and realize all of these at any particular site, let alone in all of them, and at the systemic level as well.	Revised to narrow the objective: “Madagascar’s network of new PAs is effectively managed to provide enhanced protection and better representation of key ecosystems for economic and environmental benefit”(see also Logframe and PRF).
4. In the discussion of barriers (page 5), "too little coverage of mangroves and other coastal and marine ecosystems" is presented as a barrier. This really is not a barrier but rather a description of the current baseline situation concerning the lack of representativeness of the network that this project is intending to rectify in part.	Discussion on barriers has been enhanced, and the cited example has been replaced with a fuller analysis of threats, root causes, barriers and barrier-removal strategies. A draft/indicative theory of change has been added which will be elaborated at inception stage to be owned by the PSC.
5. On page 7, the last sentence of the paragraph describing Outcome 3 needs rewording to end with "commitment to the sustainable conservation of mangroves".	Corrected. (The cited text has been replaced in later versions.)
6. It is of concern that there does not appear to be provision made for including community representatives as key stakeholders. The listing of key stakeholders is rather comprehensive but is comprised of government and NGO reps essentially. On page 9, it states that community representatives will be consulted. Unless this is some misunderstanding, this is considered to be wholly inadequate should provision should be made to ensure their inclusion from the start, and not just for consultation.	See revised section B.1 on stakeholders, especially Effective Involvement and Consideration of Local Population’s Interests. Also handled through a revision of Component 2 <u>approach</u> .
7. The alternative income/livelihood alternatives that will be explored in relation to the PAs are mentioned in a rather sketchy way. Considering the poverty level of some of the communities, it would be good to do at least a preliminary analysis/discussion of whether these could indeed compensate the lost income/ecosystem services that will result from the establishment of the PAs.	Handled through the inclusion of an experimental approach, detailed in the revision of Component 2.
8. Considering that a number of new PAs will be established in close proximity of rural communities in poverty, this is an excellent opportunity to build a quasi-experimental design to monitor the well-being effects of the PAs on human well-being. The proponents are encouraged to consider the STAP publication “Experimental Project Designs in the Global Environmental Facility” <a href="http://www.stapgef.org/experimental-project-designs-in-the-global-environment-facility/">http://www.stapgef.org/experimental- project-designs-in-the-global-environment-facility/</a> ) and interact with STAP in this respect).	As above.

<p>9. While the risks are identified and preliminarily assessed, including those related to climate change, two of the risks are perhaps being underestimated. One is related to the presence of political stability and the second, likely more important one, pertains to the sustainability of the project's outcomes. Considering the current state of the NPAs, the severe current underfunding for the system due to other priorities in part, the added costs of maintaining an expanded and more effectively managed system of protected areas, the latter is seen as a "soft spot" in the proposal. It will undoubtedly be a challenge to mobilize funding from "sustainable sources". How this could be done will require considerable thought and effort through later project preparation, as will <u>alternative sustainable financing mechanisms, revenue sharing options for local communities</u> etc. In short, balancing conservation and sustainable use may prove to be more challenging than presented. For this reason, it is suggested that more thought be given to somewhat <u>narrowing the focus of the project</u>. It would be better to do a <u>good job on something that's achievable and has a high degree of being sustainable</u>, rather than dilute the effort and resources. The PPG should focus on the risks to a greater extent and use that as a basis for deciding upon the scope of the proposal moving forward.</p>	<p>Addressed through revision of Component 2, which will allow for testing of effective approaches to engaging communities, co-management, revenue sharing with communities, alternative livelihoods, etc. that can be built upon or replicated at sites throughout Madagascar, as experience builds.</p> <p>Focusing on one theme per demonstration site to trial something new that addresses a particular challenge at that site.</p>
<p>10. The Annex presents a good description of the sites, their biodiversity values, threats etc. Granted that additional information will need to be collected during the PPG. Nonetheless, even at the PIF stage some additional information would be useful concerning the global significance of some of the selected sites, such as the Morondava Delta. Stating that it provides "habitat for many mammals, birds and reptiles" raises the question of why it was selected in the first place.</p>	<p>400 page national report provides additional detail on global biodiversity significance of sites, also highlighted in the CEO endorsement.</p>

### Initial and Additional Comments from Council Members

Council Members comments	UNEP and Partners Response
<p><b><u>Initial Comments by Canada</u></b></p> <p>a. We note that the PIF section on relations with national plans is well done. In particular, we welcome it highlighting the project's relation with specific Aichi Targets and indicators, and we look forward to this coverage going forward.</p> <p>b. We note that the PIF identifies conservation as a major weakness of past Protected Areas (PA) initiatives in Madagascar "with insufficient attempts to develop sustainable utilization and participatory, co-management approaches". Given the perception that PAs are promoted by international actors, as stated in the PIF, we are concerned by the absence of domestic productive sectors as key stakeholders as well as co-financiers of the project. We request that the final proposal elaborate on this important element.</p>	<p>a. Noted with thanks.</p> <p>b. Productive sectors are involved in the project as key members of CSAPM which important focus of outcome 1 is to strengthen that commission and its sub-committees' to play its role including in this project. Furthermore, other production sectors are major partners of the project as demonstrated by their important commitments for cofinancing namely:</p> <ul style="list-style-type: none"> <li>i. Major co-financier (\$38 M from Ministry of Agriculture)</li> <li>ii. Involvement in the legal status of PAs e.g. in Output 1.1.3 entities in charge of agriculture, forestry, extractives industries oil, mining, energy, water, tourism, Scientific research, Landscape, Fisheries, Livestock, Transports, Population, Public works, Board of Trade, Interior Office, Justice, Patrimony and Culture ....</li> <li>iii. Numerous site-level development activities within Component 2 (many largely reliant on co-financing but integrated into the project intervention)</li> <li>iv. Detail added here and the promise of more detailed indicators of success to be elaborated at project inception. See text within the GEF alternative Outputs 2.1</li> </ul>

through 2.9, as well as the section on “Monitoring, Evaluation and Applied Research”

- v. CSAPM employs various sub-committees to deal with conflicts amongst sectors e.g. Forestry-Land, Forestry-Extractives (Mining and/or oil), Forestry-Fishing, etc. These subcommittees will work on resolving the conflicts especially involving governmental VIPs.

- c. Please clarify what is meant by new Protected Areas being "sustainably" and "effectively" managed; the project's vision for the sustainable management of Protected Areas should be clear.
- d. Please explain how the project will achieve the following statement: "An underlying aim will be to generate socio-economic benefits for local communities and other economic actors, as well as generating biodiversity conservation, at all sites".
- e. We request that the reference to "National and local fishery and agriculture departments" on Page 9 be strengthened for the final project document.
- f. We request clarity on the following questions: “Is "sustainability" equated to "large-scale funding from international funding partners", as page 6, A.1.3 seems to suggest?”
- g. Is training enough to generate "effective and sustainable management of PAs" and, if so, training in what areas?

- c. Table 10 in component 2 description page 67 of CEO ER provide how sustainability and effectively managed are understood and will be applied in the context of this project, but also in line with international standards.
- d. Detail provided under Component 2 and within the section on “Engaging Local Communities in PAs”
- e. Additional detail on these sectors provided now throughout (e.g. following the above under b.)
- f. The definition of sustainability provided covers social, environmental and economic factors – within the dimension of financial sustainability, many revenue sources are envisioned including PA entrance fees, levies on tourism, etc. The current text should not imply that sustainability relies on donor support, but donor support is valuable in transitioning to a self-funding network.
- g. The needs-based training programme is detailed under Output 1.1 of the project. A number of areas are mentioned where training would contribute to improved PA management, however as resources are limited the project will embark on a prioritisation process (also detailed in the text) and looking for low-cost options that weigh up the costs of bringing staff away from their day-to-day duties. Such training efforts are not in and of themselves adequate to generate “effective and sustainable management of PAs” but an acceptable level of skills, particularly as the new model of PAs represents a step-change from earlier approaches

**Additional Comments by Canada (10-18-16)**

- h. In the response to the question of domestic productive sectors as key stakeholders, UNEP and partners provided as long list of sectors (under ii). Nevertheless, the names of these sectors do not correspond to those in the list of Stakeholders (Table 10 bis. p.96). The response should list only those that are true stakeholders, that is, that will play a specific and focused role in the execution of the project. Please address this matter in the Response Matrix (Annex B p. 112).

- h. The point is taken. CSAPM will be the focal point for wider stakeholder collaborations via its various sectoral sub-committees. Four sectors have inter-ministerial committees (Mining-Forestry, Fishery-Forestry, Forestry-Land, Forestry-Oil) that can assist the project partners in resolving conflicts, especially those involving governmental VIPs. In addition, the COE/COS, which is a consultative organ for the management of the PA system, is made up of all relevant sectors, including agriculture, forestry, extractives industries, oil, mining, energy, water, tourism, scientific research, landscape, fisheries, livestock, transport, population, public works, etc. At the level of

	<p>individual PAs, sectors will be brought into the Integrated Management Planning as described in Output 2.1.1. Stakeholders that are globally relevant to the success of the PA networks are not in general the same as the important sector partners at the individual sites. The PSC will be engaged to ensure that during the project lifespan the appropriate stakeholders are engaged as required to meet this project's Outcomes.</p>
<p><b><u>Initial Comments by France</u></b></p> <p>We globally support this proposal but we would like to underline two concerns:</p> <p>a. First, there is the fact that the success of this project will be highly dependent on the success of the political process in the country to establish a stable government in capacity to finally review and pass the Law on the new protected areas management code (COAP) which is compulsory to legalize the whole process of creation of New Protected Areas. This new COAP was prepared toward 2008 and was never passed to the assembly because of the political crisis still on going. The current COAP from 2001 which is the legal reference at the moment is not providing legal provision to establish the NAP. The establishment of NAP is only governed by decrees and decisions with limited legal strength. The issue of passing this new COAP Law is beyond the reach of this project, and for this reason is a high risk for the sustainability and replicability of the investments to be made. Mitigation measures should be developed on this subject at project development stage.</p> <p>b. Second, the project intends to support the CSAPM (Madagascar Commission for the Protected Area System) as a national coordination body for the development of the NAPs, as well as to support 9 NPAs on the field with different NGOs who are official 'promoters' and/or delegated 'managers' of those NPAs. If the idea is very good, it gives no clear statement on how the CSAPM will be empowered to be truly in capacity to coordinate multiple 'promoters' and/or delegated 'managers' of those NPAs. We know that beyond the nice picture of multiple NGOs supporting the conservation challenges in Madagascar (which is very much welcome), there's in fact also many challenges with little coordination, different if not opposite strategies and approaches on the development and management of NPAs. In this regard, the PIF doesn't provide any activity or results indicators in the logical framework to demonstrate how the CSAPM will be in capacity to improve the coordination. Will some 'promoters' and/or delegated 'managers' of NPAs accept to adopt best practices that can be develop by other organizations? Will 'promoters' and/or delegated 'managers' of NPAs adopt harmonized biodiversity monitoring system to allow the CSAPM to be in capacity to compare management efficiency of different NPAs ? etc. At</p>	<p>a. The COAP Law was enacted in February 2015. The country is now gaining political stability which is hoped to continue.</p> <p>b. Addressed within the project risks table</p> <ul style="list-style-type: none"> <li>• The New Law of Protected Areas Codes is adopted and promulgated but the applications rules is now ongoing</li> <li>• The attribution of the Commission of the Protected Areas System is mentioned in its creation in the legal texts : Actions coordination and managing the conflicts between sectors if there is one or more superposition This Commission can work together with the COE or COS of each Protected Areas , the COE or COS assume always the Activity Orientation of each Protected Areas</li> </ul>



<p>development stage, the project document needs to tackle this issue.</p> <ul style="list-style-type: none"> <li>• Opinion: Favourable, with the above recommendations</li> </ul> <p><b><u>Additional Comments by France (10-18-16)</u></b></p> <p>c. Although there are multiple references to supporting CSAPM, there is only one investment of \$19K associated with the institution in Component 1. Please elaborate on how the project will support CSAPM and if the institution is in capacity to carry-out the proposed coordination.</p>	<p>c. The budget allocation of \$19K to CSAPM is simply to support the Commission in holding its meetings during the course of the project. In addition to this funding, the project will support the commission through the capacity building activities under Output 1.1.1, which has a total budget of USD232,000. All of the capacity building strategy and activities related to protected areas under this project will be led by CSAPM, and for this reason the project will include technical strengthening of the Commission to play its required role in the management and monitoring of protected areas. CSAPM also will work together with the COE or COS of each Protected Area. In terms of CSAPM's existing capacities, it has gained valuable experience and been strengthened in recent years, drawing on the support of partners including those co-financing this project.</p>
<p><b><u>Initial Comments by Germany</u></b></p> <p>Germany approves the following PIF in the work program but asks that the following comments are taken into account:</p> <p>a. Given the specific risk situation, Germany recommends focusing on a selected number of (3-4) NPA sites especially in coastal zones and mangrove areas (instead of general, system-wide support). There, management effectiveness should be improved and funding be guaranteed. Only subsequently the coverage of other NPAs should be sought on the basis of lessons learned.</p> <p>b. Cooperation with other organisations (e.g. GIZ and KfW) which have been working in Madagascar in the green sector to enhance capacity development on the national level is recommended. Important Madagascan institutions involved in NPA issues and cooperation between civil society organisations and policy makers, ministries and multilevel administration shall also be considered.</p> <p>c. NGOs working on NAPs in Madagascar are partly already funded by World Bank Programmes. Although adequate and necessary financial flows shall be maintained and guaranteed, potential double funding or possible</p> <p><b><u>Additional Comments by Germany (10-18-16)</u></b></p>	<p>a. The Government of Madagascar thanks Germany for the feedback however feels that the nature of the challenges (both development need and biodiversity loss) encourage us to tackle the initially proposed number of sites. These are just a fraction of the overall NPAs and mangrove sites of the country, with large opportunity to generate lessons and good practices. Further, considerable co-financing is available to ensure the projects involved can make a contribution at each of the 9 sites and influence other expenditures to meet project outcomes.</p> <p>b. Noted. These agencies are partners of the SAPM and will be coordinated through CSAPM.</p> <p>c. Noted with thanks. The Project coordination will ensure that CSAPM will play its role of partners' coordination and it will be empowered to ensure rational and adequate utilisation of resources including avoiding duplication. See output 1.1.2 description.</p>

<p>d. The issue of reducing the number of NPAs for support by this project and funding per site (vs. system-wide support) is quite relevant. Please confirm that the co-financing (especially cash) will become available during project execution</p> <p>e. In order to clarify the question on double funding, provide a list of the target NPAs that are being supported by other sources of funding. If none, please clearly state it in the Response to Council Comments.</p>	<p>d. All of the co-financing identified for the proposed project has been confirmed with signed letters of commitment from the co-financing partners. At inception, discussions with all of the stakeholders will again be conducted in order to arrange necessary coordination between the Ministry and other stakeholders and to avoid any duplication of financing for specific activities (see next point). In addition, additional funding at sites is still being identified and/or will be leveraged through the project lifespan.</p> <p>e. A new table (Table 5) has been added to the CEO Endorsement Request that identifies recent or on-going funding activities at each site, as well as systemic-level funding. As shown in Table 5, the PAs involved in the project have received in past, currently receive or will receive, additional sources of funding. The project will coordinate with the various actors at each site to ensure there is no double counting, CSAPM will maintain oversight of the various expenditures, and the MEEF will ensure that a mechanism is in place to avoid duplication of funding.</p>
<p><b><u>Initial Comments by United States</u></b></p> <p>a. The U.S. government recognizes that Madagascar's biodiversity is an extraordinary public good, and merits protection. Therefore, for purposes of consistency with U.S. biodiversity policy, the United States does not register a formal objection to this program. This position does not indicate recognition of the de facto regime in Madagascar.</p> <p>b. Regarding the technical aspects of this project, on Page 3, Project component 3 Expected Output 3.1 states that there will be a "Mechanism to ensure local conservation knowledge is captured and stored in a format useful for national dissemination." We recommend the final project proposal include specifics on the mechanism (or options for appropriate mechanisms) and what kinds of formats are most useful in the Madagascar context.</p> <p><b><u>Additional Comments by United States (10-18-16)</u></b></p> <p>c. Please address question on the "specific of the mechanism" and what formats are most useful in the Madagascar context. The initial response in the CEO Endorsement is vague.</p>	<p>a. Noted.</p> <p>b. Detail provided under Output 3.1.1 description</p> <p>c. Revised text for Output 3.1.1 now shows that specialized expertise and support from a relevant CSO or NGO will be required to deliver on this output. The project will particularly seek collaboration with Natural Justice, Madagascar National Park and WWF to gain from their long term experience in the country and elsewhere. At the same time, the Output has been scaled back to be more like a case study or demonstration rather than a comprehensive intervention, and the budget has been reduced accordingly.</p>

GEF secretariat comments (10-18-16 and 10-19-16)	Response (12-01-16)
<p><b><u>Pending / not cleared from the review on 7-1-16</u></b></p> <p>a. No. The description of the proposed interventions under the GEF Alternative is very weak. In a 92 page document, only three pages (59-61) are used to describe the activities, outputs and outcomes. This part of project reads more like a PIF that as a CEO Endorsement. Please elaborate with emphasis on Component 1, 3 and 4. Component 1 (with nearly \$0.5 million in investments) is loaded with training and capacity building activities of unknown nature. Not clear why Component 4 is using more than 1/3 of a million dollars. The outputs suggest a much lower investment.</p> <p>b. The Theory of Change is welcome. Nonetheless, it is not possible to follow the chain of cause-effect relationships linking inputs-outputs-outcomes and impact. Please reformulate using similar graphics. Thanks.</p> <p>c. Please provide a better map for the suggested 9 NPAs. A map with the expected perimeters of the proposed NPAs should be available by now.</p>	<p>a. The description of the proposed interventions under the GEF Alternative has been revised and lengthened (to a total of nine pages), and considerable changes have been made to the LogFrame (described below) that comprehensively address the comments raised. The capacity building activities under Component 1 have been described in more detail. As a number of months will have passed between when the project was designed and when it is likely to be approved, these will be reviewed with close collaboration of the steering committee and with the support of UNEP at the project inception stage.</p> <p>b. A revised graphic representation of the Theory of Change is presented in Figure 2 on page 38</p> <p>c. A new map showing the project sites within the country is provided (see page 14). More detailed site-based maps will be developed through the project lifespan.</p>
<p><b><u>COMPONENT 1</u></b></p> <p>a. There is no description of the proposed activities of Output 1.1.3 (Relevant Inter-ministerial committee...). Page 62. Please number the outputs correctly (i.e. 1.1.1 not 1.1 on page 61)</p> <p>b. Would the budgets allocated to outputs 1.1.2 (\$19K), 1.1.3 (\$13K) and 1.1.5 (\$19.5K) be sufficient to achieve the objectives of the outputs? Please merge, remove or amend outputs as necessary.</p> <p>c. Not clear how an investment of \$19.5K in output 1.1.5 (which appears to be the identification and implementation of M&amp;E tools), can result in an improvement of 30% in the METT at each site (Annex A. Project Results Framework, p. 106). Increases in METT can only happen with TA and INV in the Protected Areas.</p>	<p>a. Output 1.1.3 has been merged into other outputs as described below and in the updated and more comprehensive description of the Outputs under the GEF Alternative in the CEO Endorsement Request. In addition, the numbering of the outputs has been corrected.</p> <p>b. The budgets for these outputs have been increased in the revised list of outputs (see Table 7 - Changes in alignment with the PIF). Previously, Outputs 1.1.1-1.1.3 were all focused on training and capacity building of PA agencies, but the budget for Output 1.1.1 was too high while the budgets for Outputs 1.1.2 and 1.1.3 were too low. These three outputs have now been combined into a single Output 1.1.1 and with an increased total budget of \$232,000. The budget for Output 1.1.5 (now Output 1.1.3) has been increased to \$69,500, an amount that can adequately support the development, testing and establishment of a national PA monitoring system, including training of appropriate staff.</p> <p>c. Improvements in the METT scores for the target PA sites are expected to derive primarily from the activities under Component 2 (with a total budget of \$2.77 million). Accordingly, the indicator for the METT scores for the 9 target PAs has been moved to Component 2.</p>

<p>d. Please format the TOC tables in Landscape Format in the CEO Endorsement. Not possible to see part of the tables because of the margins.</p> <p>e. Not clear if output 1.1.4 will result in the legal decrees and/or management plans for the 9 NPAs.</p> <p>f. If management plans, shouldn't they be under Component 2? See that output 3.1.3 also talks about legal instruments. Please re-organize the outputs and budgets.</p>	<p>d. The Theory of Change table has been updated and put into landscape format.</p> <p>e. The previous Output 1.1.4 was worded incorrectly, as its achievement would depend not only on the project, but also on the Government of Madagascar that has power to approve the establishment of new PAs by government decrees. This output has been revised into two new outputs. Under the new Output 1.1.2, the project will support work to create the documents and comply with the procedures required to officially establish 6 new PA sites with permanent status (3 are existing PAs with special mangrove areas in their boundaries); the description of Output 1.1.2 also clarifies that the project will develop the required legal documents, but it will be a government decision to approve any final legal status for the target PA sites. Furthermore, since at present PA managers use different management tools, the project will work to standardize all PA management tools. Under the new Output 2.1.1, the project will support the development of PA management plans.</p> <p>f. As noted above, the PA management plans have been moved to Output 2.1.1. In addition, Output 3.1.3 is now Output 1.1.5</p>
<p><b><u>COMPONENT 2</u></b></p> <p>a. Many of the proposed activities described in Table 11 are not eligible for GEF funding. Please remove them. In addition, not clear how Biodiversity Conservation in these NPAs will be achieved with many of the proposed activities. Please narrow-down the activities that are relevant to BD conservation and community benefits and which are necessary to deliver GEBs.</p>	<p>a. The GEF Alternative section has undergone significant revision based on the new Results Framework, comprehensively addressing the range of comments on this Component. The original Outputs (2.1.1-2.1.9) have been reorganized and reformulated into the following four new Outputs, all of which are focused on generating biodiversity conservation benefits and associated benefits for local communities that will contribute to the achievement of GEBs:</p> <ul style="list-style-type: none"> <li>• <b>Output 2.1.1.</b> Integrated Management Plans for 9 PAs are developed and submitted to relevant agencies for approval (\$440,000)</li> <li>• <b>Output 2.1.2.</b> PAs' staff is trained and supported in law enforcement, biodiversity monitoring and community outreach (\$590,000)</li> <li>• <b>Output 2.1.3.</b> Local communities at the PAs' borders and adjacent to mangrove micro sites are trained in CBNRM, development of alternative sources of income and ecosystem restoration (\$200,000)</li> <li>• <b>Output 2.1.4.</b> Pilot projects of the PAs and local communities on CBNRM, alternative sources of income and ecosystem restoration are developed and implemented (\$1,545,014)</li> </ul> <p>Consequently, the previous Table 11 has been removed. Detailed activities at each site will be reviewed with stakeholders, in light of changes made to the project design and the time that has passed between project design formulation (based on comprehensive consultations undertaken during the PPG phase) and the inception of the project.</p>
<p><b><u>COMPONENT 3</u></b></p>	

<p>a. Output 3.1.3 is about legal Instruments. Does this belong to Component 1?</p> <p>b. Please review sum of co-financing and other financials. Numbers do not add up.</p>	<p>a. Output 3.1.3 has been moved to Component 1 as Output 1.1.5, and it has been rephrased to be more clear</p> <p>b. The co-financing figures have been revised and match the final set of co-financing letters.</p>
<p><b><u>ILCs</u></b></p> <p>a. Please refine the proposed activities to clearly show the ones that will provide economic benefit to the communities. The list of activities under Table 11 needs a serious revision.</p>	<p>a. As noted in the response under Component 2, Table 11 has been removed. Communities will benefit from the project primarily through Output 2.1.3 “Local communities at the PAs’ borders and adjacent to mangrove micro sites are trained in CBNRM, development of alternative sources of income and ecosystem restoration are supported” and Output 2.1.4 “Pilot projects of the PAs and local communities on CBNRM, alternative sources of income and ecosystem restoration are developed and implemented”; details on the benefits are provided in the newly revised GEF Alternative section. The commitment of the project to generating socio-economic benefits is demonstrated by the fact that 33.8% of the total budget for Component 2 (\$2,705,014) will be allocated to Indigenous and Local Communities (ILCs), with funding expected to range from 7% to 50% at the various sites. In addition, an average of 35.11% of the site level budgets will be devoted to vulnerable populations such as women, children, and PAPs (Populations Affected by the PAs).</p>
<p><b><u>CO-FINANCING</u></b></p> <p>6-30-16<sup>[1]</sup><sub>SEP</sub></p> <p>a. There is co-financing from The Ministry of Agriculture in the amount of \$38,000,000. Nevertheless, the Letter of Co-financing indicates that the Le PRIASO is running from 2013 to 2018. Please only include the amount corresponding to the years the project will be running (2016-2018). Please obtain a revised LoC. On Table C, the Ministry is not an NGO. It is the National Government.</p> <p>b. The LoC from the Foundation Liz Claiborne appears to be for is for \$80,000 per year. If this the case, please adjust value of total co-financing in Table considering the duration of the project.</p> <p>c. GEF funds cannot be used as a source of co-financing. Blue Ventures indicate \$100K from the GEF (2015-2016)</p> <p>10-18-16</p> <p>d. Please provide an updated letter of cofinancing for the Ministry of agriculture indicating the new amount of \$23.75 million.</p>	<p>a. A revised LoC was provided by the Ministry and is included in Annex L. The designation of the Ministry as National Government has been done in Table C.</p> <p>b. The adjustment is now done and the total cofinancing for the 5 years project period is now \$400,000.</p> <p>c. The co-financing from Blue Ventures has been removed from Table C.</p> <p>d. An updated letter has been provided by the Ministry and is included in Annex L with \$38 Million dollars equivalent.</p>
<p><b><u>Tracking tool</u></b></p>	

<p>7-1-16<sup>SEP</sup></p> <p>a. The project aims at creating 9 NPAs but only 7 TTs were included in the first submission. Please add missing TTs or clarify.</p> <p>10-18-16</p> <p>b. If the two sites are NPAs they need to have the TT. If not available, remove the sites from the CEO Endorsement (May be re-considered for investment during project implementation but not formally part of the project).</p>	<p>a. The Tracking Tools previously missing are now available in Annex J of this document.</p> <p>b. The two TTs added to Annex J represent whole protected areas within which the individual mangrove micro-sites are located.</p>
<p><b>Overall</b></p> <p>a. Please address outstanding issues under items 7,10,17, 21 and 23. The Agency and Government need to work on the issues raised in this second review by taking a close reading of the entire project to make it "air-tight". The CEO Endorsement is very loose and need to be tight-up. Attention to detail is critical at this juncture. Thanks</p>	<p>a. Significant revisions have been made throughout the CEO ER and its annexes in order to address the comments from the GEF secretariat and Council members and to make the project strategy and design more clear and concise.</p>

**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>91</sup>**

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: \$113,000			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF/CBIT Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Consultants	36000	36000	0
Travels	26500	26500	0
Meetings/stakeholders consultations	46000	46000	0
Bank charges, communication, Offices supplies and	4500	4500	0
<b>Total</b>	<b>113000</b>	<b>113000</b>	<b>0</b>

<sup>91</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.



**ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

NA