WWF GEF
PROJECT DOCUMENT
Cover Page

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Acronyms and Abbreviations

AMR	Annual Monitoring Reviews
ASCLME	Agulhas and Somali Current Large Marine Ecosystems
AWP	Annual Work Plan
BIOFIN	The Biodiversity Finance Initiative
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
BP& L's	Best Practices and Lessons
CBD	Convention on Biological Diversity.
CBO	Community Based Organization
CC	Climate Change
CEPF	Critical Ecosystems Partnership Fund
CGF	Contractual Forest Management
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COAP	Protected Area Code
COBA	Communauté de Base, Community-level forest association
COP	Conference of the Parties
CSM	Conservation Strategies & Measures Department in WWF
CSO	Civil Society Organization
DREEF	Regional Department of the Environment, Ecology and Forests
DSAP	Protected Areas System Directorate
DWCT	Durrell Wildlife Conservation Trust
EBSA	Ecologically or Biologically Significant Areas
EEZ	Exclusive Economic Zone
EN	Endangered
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
FAO	Fisheries and Agriculture Organization
FAPBM	Madagascar Protected Areas and Biodiversity Foundation
GDI	Gender Development Index
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEF TF	Global Environment Facility Trust Fund
GELOSE	Secure Resource Contracts
Ha	Hectares
ICZM	Integrated Coastal Zone Management
IDA	International Development Agency
IOC	Intergovernmental Oceanographic Commission
IUCN	International Union for Conservation of Nature
IW: LEARN	International Waters Learning Exchange and Resource Network
KBA	Key Biodiversity Area
LME	Large Marine Ecosystem
LMMA	Locally Managed Marine Areas
M&E	Monitoring and Evaluation
M2PATE	Ministry of Land Use and Land Tenure Services
MAB	Man and Biosphere Reserves
MDCO	WWF Madagascar Country Office
MEEF	Ministry of the Environment, Ecology and Forests
METT	Management Effectiveness Tracking Tool
MIHARI	Full title in Malagasy and means "local-level marine resources management"

MNP	Madagascar National Parks
MPA	Marine Protected Area
MPAE	Ministry to develop and implement national agricultural policy and livestock management
MPMP	The ministry responsible for mines and petroleum
MRHP	Ministry of Marine Resources and Fisheries
MSP	Marine Spatial Planning
MTR	Mid-term Review
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NGO	Non-Government Organization
NMCi	Northern Mozambique Channel initiative
OECM	Area-based Conservation Measures
OFP	Operational Focal Point
OMB	Office of Management and Budget
OPEC	Organization of the Petroleum Exporting Countries
PA	Protected Area
PAP	Fisheries Management Plan
PFD	Project Framework Document
PIF	Project Identification Form
PIR	Project Implementation Report
PMU	Project Management Unit
PPMS	WWF Program and Project Management Standards
PSSA	Particular Sensitive Sea Areas
REBIOMA	Principal Biodiversity Data System in the country of Madagascar
SAPM	System of Madagascar's Protected Areas
SEMer	Secretariat of State for the Seas
SIPP	WWF Safeguards Integrated Policies and Procedures
SMART	Tool to track threats and illegal activities
SWIOFP	GEF South West Indian Ocean Fisheries Project
TDA/SAP	Trans-boundary Diagnostic Analysis/ Strategic Action Programme
TE	Terminal Evaluation
TORs	Terms of Reference
UCPE	World Bank's Independent mechanism for financial management called the Environmental Program Coordination Unit
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar
WCS	Wildlife Conservation Society
WHS	World Heritage Sites
WIO	Western Indian Ocean
WIOMSA	The Western Indian Ocean Marine Science Association
WWF	World Wildlife Fund

SECTION 1: PROJECT BACKGROUND

1.1 BACKGROUND AND CONTEXT

1.1.1 Introduction to the Project and Program

In 2016, the GEF approved the **Sustainable Management of Madagascar's Marine Resources Program** to achieve an effective network of Marine Protected Areas (MPAs) for conserving the country's unique marine biodiversity, while also enhancing management of fisheries stocks for improved food security and sustainable economic development. The program is financed through the International Waters and Biodiversity focal areas. Its objective is to ensure "strengthened management of Madagascar's marine biodiversity and productivity."

The program, led by WWF as the GEF Agency, comprises two child projects: (1) The Second South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish2) (World Bank), and (2) Expanding and consolidating Madagascar's marine protected areas network (WWF).

The two child projects are highly complementary: the MPAs provide healthy ecosystems and act as fisheries reserves to maintain productive fisheries, and improved fisheries management provides opportunities for achieving fisheries-specific policy objectives such as export revenues and increased local incomes at the community level for commercial fisheries.

The child project described here, **Expanding and consolidating Madagascar's marine protected areas network**, will contribute to the program by expanding coverage and increasing the management effectiveness of the MPA/LMMA network. The project's objective is to ensure "Madagascar's marine biodiversity and productivity are effectively managed through a sustainable, resilient national network of MPAs."

1.1.2. General

Madagascar is situated in the Western Indian Ocean at the heart of the Agulhas and Somali Current Large Marine Ecosystems (ASCLME) complex. It is the world's fourth largest island, with a total surface area of approximately 590,000 km² and a coastline of over 5,600 km long that is characterized by key coastal ecosystems including estuaries, mangroves, seagrass beds and coral reefs that provide a sustainable source of security and livelihood for hundreds of thousands of coastal people (ASCLME 2012a, b). Additional important ecosystems include the submarine Madagascar Ridge extending south from the island and supporting distinct biodiversity, as well as offshore marine ecosystems beyond the continental shelf.

The country experiences tropical climatic conditions with two seasons: a hot, rainy season from November to April, and a cooler, dry season from May to October. There is significant variation in climate owing to elevation, topography, and position relative to dominant prevailing winds. The island is influenced by the South Equatorial Current which splits to the East of Madagascar midway along the coast to form the East Madagascar Current, which runs in a southwesterly direction down the east coast, and the North Madagascar Current, which flow northwards meeting up with a separate branch of the South Equatorial Current which pushes it around the northern end of Mozambique channel. Mesoscale eddies form around the northern tip of Madagascar and then flow southward into and down the Mozambique Channel (along the west coast of Madagascar) to finally merge with the northern Agulhas Current. The East Madagascar Current continues its southerly flow and rounds the southern coast of Madagascar. Here it forms dipole eddies and then propagates westwards across the southern Mozambique Channel where it merges with the Agulhas Current. Upwelling occurs towards the South of Madagascar in the southern winter and summer. Further upwelling is also associated with the mesoscale eddies flowing down the Mozambique Channel on the western side of Madagascar. The island experiences semidiurnal

tides with a maximum range of 3m during spring tides. The sea surface temperature (SST) is on average slightly above 25°C. The maximum of 30°C is usually reached in February and the minimum of 23°C in July (ASCLME 2012a, b).

The average annual income per capita in Madagascar is approximately USD 1,500 (2016) and life expectancy is 65.9 years, with a population growth rate of 2.54% per annum (CIA World Factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/ma.html retrieved 7 July 2016).

1.1.3 Importance of Madagascar's marine biodiversity

Although the unique nature and importance of Madagascar's terrestrial biodiversity has been recognized for many decades, the regional and global significance of Madagascar's highly diverse marine ecosystems and associated species is the subject of more recent scientific research. Such studies have revealed highly diverse and complex marine ecosystems and species with levels of coral diversity that are the highest in the western Indian Ocean and only surpassed elsewhere in the world by the Coral Triangle (at the confluence of the Western Pacific and Indian Oceans). Coral diversity appears to be greatest in northern Madagascar (Obura, 2012; Obura et al, 2011, Obura et al, 2012) but it is possible that this is an artifact of geographical differences in survey effort. Globally, only 15 countries host approximately 75% of world's remaining mangroves and Madagascar is one of these high-density mangrove areas (Giri *et. al.* 2011). Mangroves occupy approximately 279,700 ha (Giri and Muhlhausen, 2008) and seagrass beds and coral reefs are found along 1,400 km of the coastline (ASCLME 2012a, b).

Numerous marine and coastal species are endemic to Madagascar's waters as well as being locally or globally threatened. Currently, 14 species of marine teleost fish present in Madagascar are listed on the IUCN Red List (http://www.iucnredlist.org). Recent surveys have also found potentially significant populations of Dugong in northwest Madagascar, which are now extremely rare throughout the western Indian Ocean and have a negative outlook in Madagascar (Marsh and Sobtzick 2015). Among the 123 species of sharks and rays present in Madagascar, 31 are classified by IUCN as threatened, one is endangered (the skate *Rostroraja alba*), 17 are vulnerable (the whale shark and endemic skate *Dipturus crosnieri*) and 10 are near-threatened. All three species of sawfishes are classified as "critically endangered" on the IUCN Red List and in Appendix I of CITES. Today, sawfishes are very rare, due to overexploitation, shrimp trawling, use of gill nets and installation of fish barriers in estuaries (IUCN red list).

The global conservation community recognizes the importance of Madagascar's marine biodiversity and the need to mitigate or remove threats to it. The Convention on Biological Diversity (CBD) recognizes several **Ecologically or Biologically Significant Areas (EBSA)** and has proposed three zones of particular interest[1] (Figures 5-8 in Appendix 1). The largest is the ***Mozambique Channel***, characterized by its complex currents and eddies that are important for up-wellings that release deep-water nutrients across the thermocline together with high retention and recruitment of pelagic larvae. The nutrient flow up onto the continental shelf is believed to be important for fish, marine mammals and seabirds and is likely to be important for fisheries. The Mozambique Channel EBSA is considered to be important with respect to nesting and breeding turtles and as a nursery area for several cetaceans. Embedded within this EBSA is the ***Southern Madagascar*** EBSA sometimes known as the 'deep south', a plateau and ridges 1,000-2,500m deep extending 1,000km southwards from Madagascar. This southerly zone is characterized by the presence of an ecotone between the tropical and temperate waters of the Indian Ocean at the crossroads between the fauna of the Indo-Pacific and southern Africa. Local conditions including high energy currents, up-wellings and cooler waters have given rise to quite specific communities. Endemism is marked among tropical algae and mollusks. It is also an important feeding area for seabirds and several cetaceans notably the pygmy blue, humpback, sperm, right and Bryde's whales. It is also an important area for leatherback, loggerhead and green turtles.

[1] https://www.cbd.int/ebsa/ebsas

The ***Northern Mozambique Channel*** EBSA shares many features with the larger zone extending further to the south. However, it is characterized by a more diverse marine fauna that is second only to the Coral Triangle region. Like the preceding EBSAs, this zone is believed to play an important role in maintaining stock while its high connectivity may be providing a series of stepping stones and refugia across the breadth of the Mozambique Channel.

No **Particular Sensitive Sea Areas** (PSSAs) exist in Madagascar at present but the country's national Port, Marine and River Authority in collaboration with the Secretary of State for the Seas is initiating steps through the International Maritime Organization to develop a proposal for new designations. This is conditional to the establishment of a new national Maritime Code that will be the legal framework for the country's territorial waters and EEZ. No potential PSSAs have been identified at present but workshops are proposed for this purpose in 2018.

The **Critical Ecosystems Partnership Fund** (CEPF) provided financial support to develop a comprehensive ecosystem profile of Madagascar and neighboring islands (CEPF, 2014). The profile identifies numerous marine and coastal Key Biodiversity Areas (KBAs). Unfortunately, IUCN updated the criteria for nominating KBAs and the process must be relaunched to ensure compliance to these new criteria[2]. It is unlikely that the currently defined KBAs will change significantly but, given their importance in identifying priority conservation areas, it will be critical to undergo the process of redefinition based on the updated criteria.

1.1.4 Fisheries

Madagascar's fisheries and their management are of marked regional significance. The complex current systems within the Agulhas and Somali Large Marine Ecosystems support rich inshore and open water food chains that sustain the region's fisheries. This supports the livelihoods of fisher communities along the Eastern African seaboard and Western Madagascar. In the latter, an estimated 240,000 people are entirely dependent on subsistence artisanal and small-scale fisheries, harvesting 107,300 tonnes per year in 2008 as compared to 13,800 tonnes per year in 1950. Small-scale fisheries represent nearly 72% of total fish production, and largely focuses on export products such as crustaceans, holothurians and cephalopods. In 2003, the small-scale fisheries as a whole contributed to nearly 26% of the total tonnage of fisheries export production and nearly 9% of the total value of exports, worth an estimated USD 142 million (ASCLME 2012a, b). Tuna are harvested in the industrial seine fishery and longline fishery. Official fisheries statistics indicate catches of 10,000 to 11,000 tonnes per year (FAO country profile for Madagascar: http://www.fao.org/fishery/facp/MDG/en retrieved 7 July 2017). However, of some serious concern is the fact that small-scale fisheries are often unreported or under-estimated. (Manach et al. 2011a). Nevertheless, such incomplete and inadequate data are often used to develop and implement fisheries legislation and to support and justify management plans and foreign fishing fleet access agreements which inevitably leads to serious over-estimations of resource availability. Reconstruction of total catches by all Malagasy fisheries sectors (Manach 2011b) has shown that the actual total catch between 1950 and 2008 was twice the volume reported by national fisheries agencies. Much of the subsistence sector is missing from official statistics, while signs of decline in the catches have already been observed in several stocks, suggesting that current levels are likely to be exceeding sustainable yields. This may well have profound implications for the sustainability of fisheries and thus on food security in a country where people rely heavily on the ocean for their daily protein needs and livelihoods.

The fisheries sector is a key contributor to Madagascar's economy and is vitally important for both local livelihoods and national growth. The economic and social significance of fisheries and aquaculture are clear insofar that they represent 7% of GDP and 13% of exports, while providing an estimated 500,000 jobs (National Development Plan 2015–2019, Government of Madagascar).

[2] The originally designated KBAs were dropped because of the change in criteria and Madagascar currently has none.

Tourism and the hotel sector contributes about 3.7% of GDP (2008) and the sector is the second largest source of foreign exchange in the country, contributing between USD 116 million (2009) and USD 303 million (2008). The sector also directly employs nearly 27,300 people. Agriculture however, is the main sector contributing 35% of GDP, 75% of the employment and subsistence, and 20% of the total exports (ASCLME 2012).

Oil, gas and biofuel production has been limited in Madagascar up until 2008. The Presidency's Department in charge of Mines and Petroleum reported in 2014 that Madagascar has sedimentary basins representing a prospective exploration target with over 800,000 km^2. Oil reserves have been discovered at Bemolanga and Tsimiroro. Experts estimate that out of the nearly 600,000 km^2 that make up Madagascar, half of the island is covered by the heavy oil-rich sedimentary basins of Morondava, Mahajanga and Ambilobe. According to independent studies, Madagascar Oil's discovery at the Bemolanga deposit holds 16.6 billion barrels of oil in place and recoverable probable and possible reserves of 9.9 billion barrels. Tsimiroro is expected to hold up to 200 million barrels of potential oil in place and drilling is currently under way to determine the area's potential[3]. In September 2016, fuel oil derived from Tsimiroro production was supplied to the Mandroseza power plant in Antananarivo and demonstrated that domestically produced fuel oil could successfully provide Madagascar with a cost effective and reliable power generation solution[4]. There are prospects for offshore oil extraction off the West and North coasts, and biofuel projects (using jatropha) have been planned but, as of 2012, these had not been implemented (ASCLME 2012a, b), partly due to the 2009 political crisis but presumably with a fall in global fossil fuel prices. The rise in extraction of oil and gas from shale deposits (fracking), particularly in the United States, has also created a lot of uncertainty in the markets as OPEC countries counter this with significant reductions in their bulk oil that led to the fall in the price of fuel. All of this tends to create a somewhat unstable and uncertain environment for oil and gas production and investment.

56 onshore (51,000 km^2) and 270 offshore (380,000 km^2) petroleum blocks have been delineated, of which 17 onshore and 6 offshore blocks have been granted prospecting licenses.

1.2 MARINE AND COASTAL BIODIVERSITY CONSERVATION

As the fourth largest island in the world, Madagascar is home to a vast area of marine ecosystems. Madagascar's marine biodiversity supports 10 million people in some of the poorest communities in the world, including over 250,000 artisanal fishers who live near the coast and rely on healthy marine and coastal ecosystems for food, revenue, and livelihoods. The combination of exceptional biological richness, productivity and the actual and potential threats to marine and coastal ecosystems has attracted the attention of the national, regional and global conservation community and Madagascar is consistently cited as a global conservation priority (Cinner & Fuentes 2008; Rogers et al. 2010).

1.2.1 Institutional arrangements

The **Ministry of the Environment, Ecology and Forests** (MEEF) is responsible for all protected areas governed by the Protected Area Code (COAP): these sites constitute the national ***protected areas system***. Within the ministry the Protected Areas System Directorate (known by its French acronym as DSAP) is responsible for leading and coordinating the expansion and management of the national system. Besides the capital, the ministry is represented by 22 regional directorates that are responsible for all MEEF activities in their respective regions. They are known by the French acronym as the DREEFs. Two agencies that are attached to MEEF are important regarding protected areas: ***Madagascar National Parks***, responsible for a ***national network*** of parks and reserves within the national protected areas system; and the **National Environment Office** (ONE). The ONE is responsible for ensuring that protected areas are in compliance with various steps involved in their

[3] http://www.rigzone.com/training/heavyoil/insight.asp?i_id=285
[4] https://www.madagascaroil.com/

creation process (the creation process is described in Section 1.2.2). One of these obligations is public consultation to ensure protected area creation is founded upon free and informed prior consent among stakeholders. A second important responsibility is the development and implementation of a social and environmental safeguards plan in conformity with national law.

The regional role of the DREEF, is to represent the ministry's interests and to coordinate the activities of more local offices within the region. They are part of each region's administrative authority wherein all pertinent national ministries are represented and support an appointed chief of region. DREEF staff support protected areas as required and works closely with the local communities and their NGO/CSO partners concerned. An important responsibility is to assist communities to establish local area-based natural resources management contracts known as Contractual Forest Management (GCF) agreements and **Secure Resource Contracts** (GELOSE). The most important of the two for marine resources is the GELOSE which is regularly applied to mangroves. A community-based group, the COBA, is the local co-signee and is responsible for implementing the management contract. GELOSE and GCF are commonly linked to PAs as social and environmental safeguards measure that allows local communities to access traditional subsistence resources. The local municipality or commune is also a co-signee of the GELOSE agreements.

The **Ministry of Marine Resources and Fisheries** (MRHP) manages all marine fisheries and other resources in Madagascar. At the coastal level, it has developed a system for local communities to manage specific areas to improve fisheries management. This is done through fisheries management plans (PAPs) which are formally recognized by the fisheries regulations and are supported by technical personnel within the ministry. The PAPs are instruments that the SWIOFish2 child project supports in its intervention areas. SWIOFish2 is managed by MRHP.

A new **Secretariat of State for the Seas** (SEMer) was established in 2016. This state organ is associated with the fisheries ministry and collaborates closely with that body and the MEEF. SEMer had the mandate to develop and coordinate specific policies and plans for Madagascar's territorial waters and EEZ. This included a national multi-sectorial marine spatial planning (MSP) process. SEMer was dismantled in June 2018 and it is not clear yet to which department its responsibilities will be handed over.

An inter-ministerial steering committee led by SEMer has been in place since 2016 to lead and coordinate the implementation of the commitment made by Madagascar during the 2014 World Parks Congress to triple the marine protected area. The Sydney Promise steering committee is composed of representatives from all ministries concerned with marine resources such as MEEF, MRHP, Ministry in charge of Petroleum, Ministry in charge of land use planning, Ministry of Tourism, Ministry of Transports. The three main NGOs involved in marine conservation are also members of this committee: Blue Ventures, WCS and WWF. With the dismantling of SEMer, it is anticipated that the leadership of this committee will be taken over by the MEEF.

Over the last decade and a half, a new approach to managing marine and coastal environments and their resources has arisen: **Locally Managed Marine Areas** (LMMAs) (see Section 1.2.4). LMMAs are similar to PAPs but do not enjoy the same degree of legal recognition. Most LMMAs have been created by local communities to manage fisheries and other natural resources, although many now have an additional role in conserving biodiversity. Most LMMAs are managed on the basis of customary norms (*dina*) agreed by community members; in some cases LMMAs gather into networks to cover a larger continuous area and share a common dina. In the case where a PAP is in place, LMMAs have been integrated in the zoning and management rules of the PAP. Their fisheries origins mean that they initially fell primarily within the mandate of MRHP, however a few such as Velondriaka in the Southwest and the Barren Islands in the West have a protected area status. Given their contribution to conservation in many areas, especially where they are associated with protected areas, MRHP and MEEF collaborate closely to provide support.

In 2005, the government Conservation International and WWF provided the initial funding for a new instrument to finance protected areas: the **Madagascar Protected Areas and Biodiversity Foundation** (FAPBM). The foundation has been declared to be a public utility, an institution that contributes to managing the country's heritage. The foundation's board of directors is composed of elected private individuals who manage funds to provide grants to individual protected areas. The capital of the FAPBM is over USD 70 million, and its interests are used for PA support grants. The organization also manages sinking funds in agreement with projects supported by international donors.

The Biodiversity Finance Initiative (BIOFIN), has recently been launched in Madagascar by UNDP and its partners. An initial phase to analyze the costs of preserving the country's biodiversity and the policy, legal and regulatory frameworks for biodiversity conservation will start in June 2018. It is anticipated that this project will provide recommendations for sustainable financing mechanisms for biodiversity conservation, including marine biodiversity within MPAs and LMMAs. It is likely to work closely with FAPBM.

As the Durban Vision was being implemented, government quickly recognized that it did not have the staff capacity and other resources to work at the local level to support the expansion of the protected areas and LMMA networks. Government therefore invited ***NGOs*** or other partners to support (*promote* in local terminology) the expansion process while working closely with local community groups (community-based organizations, CBOs) to integrate their interest into site design and management practices. What arose from this approach was a system of co-management by communities (and other local stakeholders) and the promoter NGOs. This approach has been maintained to the present, but the longer-term objective is to transfer full management responsibility to local stakeholders under the responsibility of MEEF and MRHP, respectively, depending on the objectives of the site.

The main NGOs involved in MPA promotion are Blue ventures, Conservation International (CI), the Wildlife Conservation Society (WCS) and Worldwide Fund for Nature (WWF). Blue Ventures works in the southwest, center-west including the Barren Islands and the northwest. This organization was the initiator of the LMMA movement and aided coastal communities to designate and manage these sites. The organization's approach to MPA management is largely based on those used for LMMAs: their approaches focus on improved management of fisheries and other marine resources. Blue Ventures has published numerous articles on marine biodiversity health and social aspects of managing MPAs and LMMAs. CI promotes one MPA in the northeast and it currently intends to extend this area in the coming years. CI has organized marine biodiversity inventories in the north and these have been instrumental in demonstration the areas global importance. WCS has a long history of promoting MPAs, beginning with Masoala National Park. This protected area includes the earliest marine areas to be integrated into the national network. WCS currently promotes additional MPAs in the southwest and northwest, in partnership with local communities. It has conducted considerable research on marine biodiversity. WWF has supported Madagascar National Parks MPAs for more than two decades. It also supports marine/coastal conservation in additional mixed ecosystem protected areas, once again by supporting co-management systems with local communities. Its marine focus is on the extensive reefs of the southwest and northwest, and extensive mangroves in the center-west and northwest. WWF is actively promoting the development of CSOs, CBOs and non-governmental platforms extending from total to national levels to strengthen their participation in MPA support and to increase their influence with respect to marine policy and legislation. The main support for this initiative comes from the project 'Leading the Change' financed by the Swedish government. The organization is also coordinating a regional program, the Northern Mozambique Channel initiative involving all of the countries that are within this geographical area.

The original NGO promoters have now been joined by national, regional and local CSOs that defend the varied interests of local rights holders managing protected areas or LMMAs. Their capacity and strength is largely still quite limited, but donors and NGOs have secured resources to enable these civil society groups to progressively strengthen their internal capacity and confidence to positively influence for improved policy and legislation that strengthens the status of protected areas/LMMAs as well as local rights holders. In recent years, these NGOs,

CSOs and CBOs have begun to establish a networking process from national to local scales that addresses many issues pertinent to marine and coastal management. Platforms and coalitions have been established that dialogue and, as appropriate, support national government as well as regional and local authorities with respect protected areas and natural resource management.

With respect to national CSO and CBO development, Blue Ventures, CI and WWF supported the creation of a platform that federates local stakeholders and their promoters involved in MPA and LMMA management. This organization, ***MIHARI***, is an acronym from its full title in Malagasy and means 'local-level marine resources management.' MIHARI has brought together NGOs, Madagascar National Parks and numerous Malagasy CSOs and CBOs, and has a membership of over 75 organizations. It has a national strategy and action plan.

In rare cases, private companies have played the role of promoter, usually working closely with NGOs. In addition, the private sector has increasingly become a significant player in opening or strengthening new opportunities for economic development while integrating local rights holders at the community level. These opportunities involve fisheries and ecotourism value chains in the main.

1.2.2 Legal, planning and policy framework

All protected areas in Madagascar are governed by the Protected Areas Code (COAP) legislated in 2001 and revised in 2015. The update was necessary in order to integrate innovations arising from a national commitment made at the World Parks Congress in 2003 (subsequently known as Madagascar's Durban Vision) to triple protected area coverage and diversify governance and management options so that they are well adapted to local conditions. The COAP is based on IUCN's governance/management categories and includes an additional designation to allow for sites managed by local communities that do not fall readily into these international categories.

The Durban Vision led to a national planning process to identify terrestrial sites to be designated as new protected areas but the limited amount of data on marine biodiversity precluded a similar exercise for marine sites. It may be noted also that the conservation community was largely focused on conserving forest and inland wetlands sites at that time. A consequence of this focus is that it may be difficult to apply the regulatory frameworks derived from the COAP as they are based on forest management approaches. For example, all protected areas have designated spaces that are reserved for local subsistence uses. In contrast, coastal fisher communities typically have traditionally had open access to the sea: marine natural resources are often the mainstay of their livelihoods and the only source of income. Delimiting a zone as a protected area can therefore create conflict by denying or reducing access to traditional resource areas if traditional user rights are not adequately addressed. Coastal communities generally have a strong sense of ownership of the local marine environment given their strong dependence on its resources.

One of the main challenges encountered with the existing regulatory framework involves the complexity and high cost the process of protected area creation through to full legal gazettement. Under Malagasy law, all new protected areas must apply the same standards as those applied to commercial initiatives such as mines, petroleum or forestry projects. The standards are laudably high but the complexity and, in particular, cost present difficulties for NGO promoters that generally have limited resources. The current protected area creation process was defined in 2008. It involves four procedures that together include 16 steps[5]:

PROCEDURE I – CREATION INITIATIVE

A. Feasibility study
B. Conservation planning workshop

[5] It should be noted that the procedures manual specifically refers to creating terrestrial protected areas, but all sites including marine areas followed the same procedures.

C. Stakeholder consultations and engagement
D. Environmental impact study
E. Initial land use planning.

PROCEDURE II – OBTAING TEMPORARY PROTECTION STATUS

F. Submission of a creation initiative dossier to the ministry responsible for the environment

PROCEDURE III – MANAGEMENT OF INTER-SECTORIAL CONFLICTS

G. 21 Conflict management procedures

PROCEDURE IV – DEFINITIVE CREATION (ACTIONS LEADING TO GAZETTEMENT)

H. Preparation of contract to define management responsibilities (delegation of management responsibility to a protected area promoter)
I. Public consultations
J. Full land use and management plan
K. Delimitation
L. Recommendation by Sustainable Development of Natural Resources Steering and Evaluation Committee
M. Environmental impact assessment (with an action plan included)
N. Submission of a creation dossier to the ministry responsible for the environment
O. Submission of a proposal for gazettement including the creation dossier
P. Approval and gazettement.

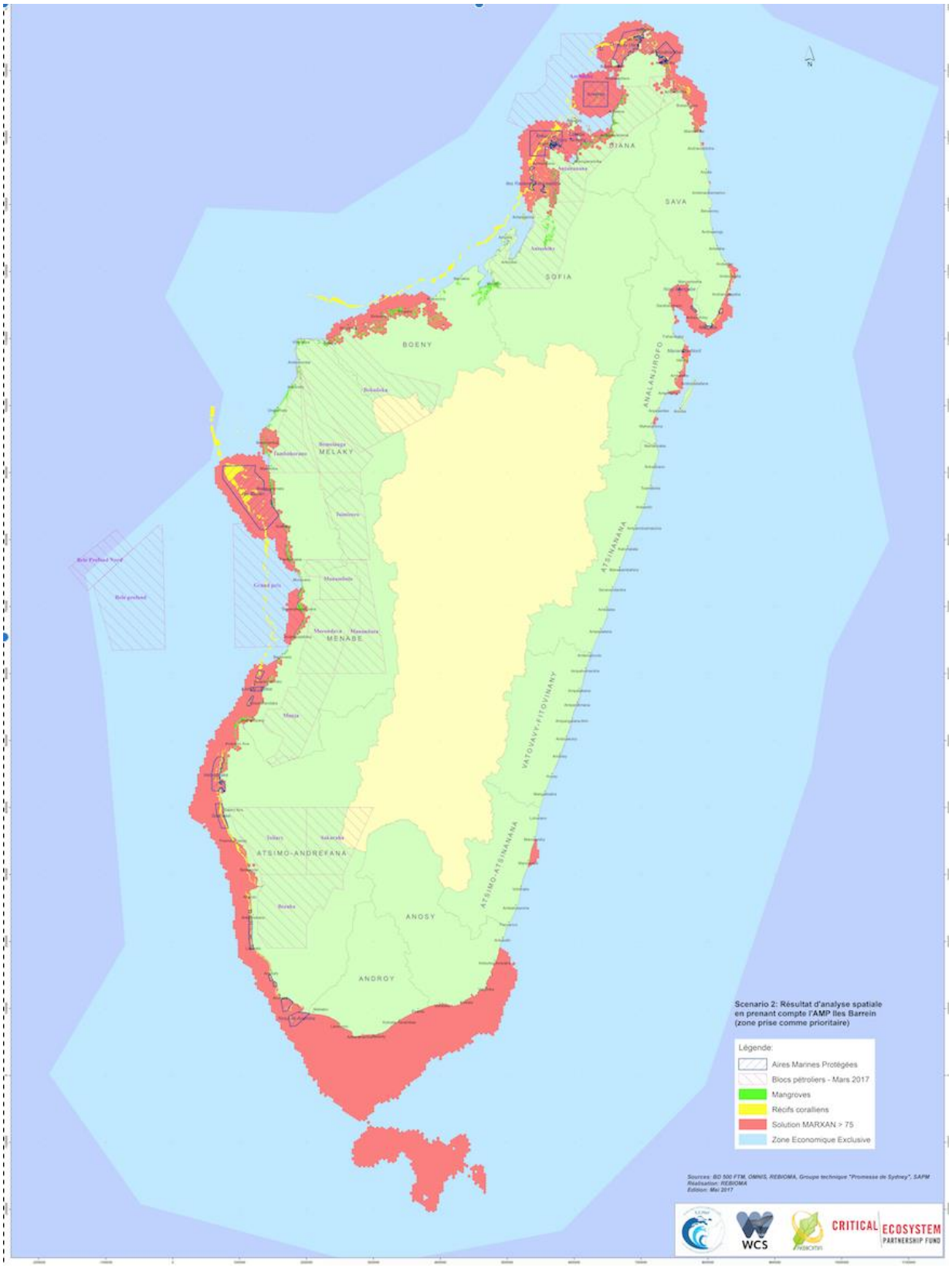
While the promoters fully accept due diligence in protected area creation, many would like to have the process streamlined in such a way that standards and safeguards are sufficiently upheld while complexity and costs are reduced. The MEEF is recognizant of this need.

As the Durban Vision rolled out, NGOs working with local communities to create protected areas encountered a willingness among communities to improve their local fisheries practices and their management of other resource areas such as mangroves. With the support of the NGOs, a small number of communities designated areas that they would sustainably manage and/or restore the environment and its resources, the LMMAs. In the decade that followed, additional communities adopted the same approach and LMMAs now occupy around 7% of the continental shelf area. Many LMMAs are embedded within protected areas and are thus at least partly regulated under the COAP. However, many are independent and are deemed to come under the fisheries ministry. Given their recent emergence, no regulatory framework yet exists for LMMAs, although the government has pledged to develop such a framework as part of its commitment to Aichi Target 11 (see Section 1.3).

Following the 2014 World Parks Congress, the conservation community focused specifically on marine conservation planning to meet Madagascar's commitment to Aichi Target 11 (see Section 1.3). Thus, there is now a provisional mapping of the island's most important coastal and marine biodiversity areas (Figure 1). This process uses MARXAN software drawing upon biodiversity information including major ecosystems (reefs, seagrasses and mangroves) and species data as well as other important information such as the location of existing MPAs, petroleum exploration blocks, fisheries and climate change vulnerable areas. This was a participative endeavor that aimed to identify future MPA developments and contribute eventually to the multi-sectoral MSP process where for the first time biodiversity conservation would be an important factor. Indeed, until recently, MPAs were considered to be of less importance than the more traditional sectors involved in economic development including oil and gas, tourism, maritime transport and port infrastructures. The increased importance allocated to MPAs is linked to a growing recognition of their contribution to sustainable economic development through a recently adopted natural capital accounting system proposed in the most recent 2015-2019 national development plan (NDP) (National Development Plan 2015–2019, Government of

Madagascar). The marine biodiversity priority mapping was financed by a grant from CEPF to WCS who delegated the work to REBIOMA the principal biodiversity data system in the country (this exercise is known locally as Zombandriake). The study was carried out at the request of the inter-ministerial Sydney Promise Steering Committee. The results of the study provide a solid first step in planning MPA network coverage.

Figure 1 Marine and coastal biodiversity priority areas in Madagascar



1.2.3 Marine protected areas (MPAs)

MPAs can be differentiated into those that are managed by the semi-autonomous Madagascar National Parks and those that are managed by other organizations. Madagascar National Parks classes it sites as Category I, Category II or Category IV. Most of its sites are within Category II and all of its MPAs are designated as such. Three of these MPAs are designated for marine and coastal ecosystem protection only while the rest include terrestrial habitats also. All MPAs within the Madagascar National Parks network are co-managed with local communities and/or other local stakeholders. Nosy Tanikely MPA is unique in that it is co-managed by Madagascar National Parks, the local municipality and the regional tourism office, given the site's high economic value as a tourism venue. In all other sites, special zones have been designated for traditional fisheries or other resource uses, but the relatively strict Category II status limits these practices. However, some sites have developed innovative approaches that include neighboring areas designated as LMMAs and other solutions that respond to local development aspirations. Some sites recognize the rights of traditional migrant fishers from areas some distance from the MPAs.

Most of the non-Madagascar National Parks are within Categories V and VI. These are supported (or in local terms, *promoted*[6]) by NGOs who work closely with local communities and other local stakeholders, but the same approach has also been adopted by a private hotel and its neighboring communities. The decision to use these classifications for these non-Madagascar National Parks sites is based on the recognition that MPAs must integrate local cultural, social and economic needs and aspirations in their design, governance and management. These less strict categories facilitate the integration of local resource ownership and user rights.

Of the 122 Malagasy PAs with full protection status 10 are dedicated fully to marine ecosystems including islets small islands (see Table 1 below), An additional 17 PAs are mixed terrestrial and marine biodiversity areas, with the larger sections usually designated to protect terrestrial forests. Total coverage of marine and coastal habitats under full legal protection is 1.1 million ha. The majority of MPAs occur along the west coast where marine and coastal habitats are richest and most extensive. The northern half of the east coast where the South Equatorial Current deflects northwards along the coast is also rich in marine biodiversity. Below this area where the East Madagascar Current deflects southwest along the coast marine and coastal is generally less diverse.

Several new MPAs are in the process of being established or plans for their future creation are being developed. Their expected increase in marine and coastal conservation is expected to exceed at least 700,000 ha.

Marine protected area coverage in Madagascar is significantly below global averages, notwithstanding a three-fold increase in the size of the national PA system over the last decade. Marine parks and reserves constitute 11% of national system, covering 3-4% of territorial waters and coastal ecosystems, and less than 1% of the 1.2 million km^2 EEZ.

[6] Based on this local terminology, NGOs or other entities that support MPA creation and development are known as promoters. Some, but not all promoters will be impementing partners supported by the child project.

Table 1 MPA coverage in Madagascar

Key: partial marine coverage – mixed marine-terrestrial PAs with known marine area; marine area not defined - mixed marine-terrestrial PAs with marine area not defined but usually small; fully marine – entire site is an MPA.

MPA	Marine coverage (ha)	COAP/ IUCN category	Promoter	Observations
Gazetted MPAs (full protection status)				
Bioculturel d'Antrema Biocultural site	?	6	Museum	Marine area not defined
Tsimembo Manambolomaty Complex	6824	5	TPF	Partial marine coverage
Zones Humides Mahavavy Kinkony Complex	?	5	ASITY	Partial marine coverage
Ankarea	135556	5	WCS	Fully marine
Ankivonjy	139,410	5	WCS	Fully marine
Soariake	38,293	6	WCS	Fully marine
Velondriake	63,985	5	Blue Ventures	Fully marine
Ambodivahibe	369266	6	CI	Fully marine
Loky Manambato	?	5	Fanamby	Marine area not defined
Menabe Antimena	13947	5	Fanamby	Partial marine coverage
Nosy Antsoha	28.47	5	Lemuria Land	Fully marine
Ambatoatsinana	?	5	QMM	Marine area not defined
Andreba	?	5	WCS	Marine area not defined
Baie de Baly	?	2	MNP	Marine area not defined
Kirindy - Mitea	28600	2	MNP	Partial marine coverage
Mananara-Nord	1000	2	MNP	Partial marine coverage
Masoala	10000	2	MNP	Partial marine coverage
Iles Radama/Sahamalaza	18570	2	MNP	Partial marine coverage
Nosy Hara	125471	2	MNP	Fully marine
Nosy Tanikely	180	2	MNP	Fully marine
Nosy Ve Androka	91445	2	MNP	Fully marine
Lokobe	?	2	MNP	Marine area not defined
Ranobe bay	42404	?	MEEF	Fully marine
Bombetoka Beloboka	?	?	MEEF	Marine area not defined
MPAs with temporary protection status (a step towards gazettement)				
Iles Barren	431,700		Blue Ventures	Fully marine
Total coverage of fully marine sites			**1,006,038**	
Total coverage in mixed marine and terrestrial sites (minimum estimate)			**78,941**	Some PAs with relative small marine sectors do not provide area data
Total marine coverage by PAs			**1,008,979**	

The earliest MPAs largely focus on coral reefs and associated habitats, though there has more recently been a significant increase in mangrove coverage. Most MPAs are also relative small and only a small number are designed to maintain ecosystems and environmental services at a seascape scale. The latter include the MPAs and LMMAs in the Antongil Bay area in the northeast where a new fisheries reserve providing protection for sharks and other heavily exploited species provides additional conservation status to a larger area of the continental shelf. The Velondriake and Soriake, Nosy Hara and Nosy Ve-Androka MPAs are probably large enough to protect at least some ecosystem services at the level of the seascape. A major constraint in developing large-scale conservation approaches is the lack of available information to reliably define seascape level areas. Another is the potential conflict with industrial fisheries and other legitimate uses of the sea. However, as existing MPAs and LMMAs often occur in the same general area along the coast, there may be opportunities to test new approaches to align the respective goals to provide effective ecosystem/seascape-level conservation. In addition, the Barren Islands and 'deep south' MPA creation programs promoted by Blue Ventures and WCS respectively, could be the first truly seascape-scale projects in Madagascar.

1.2.4 LMMAs

LMMA is a term used in Madagascar to describe Other Effective Area-based Conservation Measures (OECMs). With respect to Aichi Target 11, IUCN's World Commission on Protected Areas (WCPA) defines OECMs as follows: *A geographically defined space, not recognized as a protected area, which is governed and managed over the long-term in ways that deliver the effective* in-situ *conservation of biodiversity, with associated ecosystem services and cultural and spiritual values*. However, some LMMAs have been integrated into MPAs categorized under the COAP as the equivalent of IUCN Categories V or VI and therefore have MPA status. Moreover, other LMMAs that are not within MPAs may have the dual objectives of managing marine and coastal resources sustainably for local benefits as well as biodiversity conservation in its own right. IUCN has developed guidelines to assess the contribution of different types of OECMs/LMMAs to Aichi Target 11[7]. One important area that would come under this classification is a fisheries reserve in Antongil Bay in the northeast that confers a special protection status for sharks as well as other conservation values. The potential contribution of OECMs not regulated under the COAP to Aichi Target 11 has not yet been assessed. All LMMAs are managed by local communities, usually with the support of NGOs and CSO that promote local interests. They currently cover 7% of Madagascar's continental shelf.

Management actions in Madagascar have primarily focused around community-based fishery management strategies to increase fish stocks and reduce fishery effort (FAO Fisheries Technical Paper No. 603. 2017). In the past decade, the number of site-based local fisheries management initiatives (the PAPs and LMMAs) in Madagascar has increased dramatically. These are formalized through social code (e.g. dinas), developed and enforced at the local level, and focus on empowering local communities to be able to take greater responsibility for marine natural resources management and ensuring closer alignment with local populations' interests. The practice of regulating fisheries by conferring management rights and powers to local communities holds great potential for sustaining dispersed small-scale fisheries and improving people's livelihoods. In particular, LMMAs in Madagascar place local communities at the center of decision-making and the management processes. The main objectives of the LMMAs are biodiversity conservation, poverty alleviation and enhancement of the sustainability of the fisheries. Most of the LMMAs implement management measures such as no-take zones, temporary fishing closures, and gear and species restrictions, as well as activities to facilitate alternative livelihoods.

There are currently more than 130 LMMAs in Madagascar.

[7] https://www.iucn.org/sites/dev/files/content/documents/guidelines_for_recognising_and_reporting_oecms_-_january_2018.pdf?

1.2.5 Additional conservation designations

Apart from the EBSAs noted in Section 1.1.3 the following conservation designations are of interest.

Ramsar sites

Four MPAs are classed as Ramsar sites. These are the Nosy Ve – Androka barrier reef, the Tsiribihina mangroves, Barren Islands, Antrema biocultural site and Radama Islands – Sahamalaza.

UNESCO MAB

Four Madagascar National Parks MPAs are the core conservation areas within Man and Biosphere Reserves. These MAB reserves are Mananara Nord (northeast), Sahamalaza-Iles Radama (northwest), Kirindy-Mite (west) and Toliara Littoral Zone (southwest).

UNESCO World Heritage

UNESCO identified several zones abutting Madagascar as potential future World Heritage sites in the Western Indian Ocean, the most important ones occurring in the Mozambique Channel Obura et al., 2012). These include the north of Madagascar and the extensive plateau extending from the south of the island. Antongil Bay in the northeast was also cited as an additional potential World Heritage site.

1.3 MADAGASCAR'S COMMITMENT TO AICHI TARGET 11

At the 2014 World Parks Congress in Sydney the president of Madagascar declared that the country would triple the number on MPAs within the following 5-10 years. He also announced that the government would address the policy gap that prevented local communities from securing management rights to traditional fishing grounds. This was accompanied by a commitment to establish legal and regulatory frameworks for community management of marine and coastal resources. The latter would help to create a pathway to formalize the status of LMMAs.

The 2014 'Sydney Promise' strengthens the future status of MPAs and LMMAs in national policies and plants that are firmly based on managing natural capital for sustainable development. This means that these sites will be on a stronger footing as Madagascar begins the process of multi-sectoral marine spatial planning (MSP) for sustainable economic development, in marked contrast to previous planning processes dominated by 'traditional) powerhouses of the economic development such as oil and gas, industrial fisheries and tourism.

The target to triple the number of MPAs has evolved since the world parks congress to become tripling the surface area coverage.

1.4 PROJECT ALIGNMENT WITH AICHI TARGET 11

Madagascar's commitment to Aichi Target 11 – the Sydney Promise – is the foundation for the MPA child project. Based on reliable information available when the PFD was developed, this meant tripling the existing gazetted MPA coverage of just over 800,000 ha to a targeted 2.4 million ha. However, since additional information is now available the tripling process should be from 1 million ha to 3 million ha. Nevertheless, Madagascar's Sydney Promise states that the tripling will be attained in 5-10 years, the latter timeframe exceeding the 2020 time limit for Aichi Target 11. For this reason, the child project has a target of increasing MPA network coverage by at least 1 million ha by project termination.

When the PFD was being developed, there was no formal analysis that identified priority geographical areas for coastal and marine biodiversity. However, several earlier more localized biological inventories and analyses were available and indicated the existence of several likely high priority zones. These were: Antongil Bay in the northeast, the northern coastal areas, the center-west and the southwest. In consequence, there was a focus

on establishing MPAs and LMMAs in these zones (Figure 9 in Appendix 1). The first three zones were also selected as priority areas for the SWIOFish2 child project[8] and thus opportunities for collaboration with the MPA project. For these reasons, the PDF proposed that these four zones should be prioritized for the MPA child project.

The existence of established MPAs and LMMAs in these initial prioritized zones have had time and resources to establish a least a minimum level of management effectiveness. They also provide an opportunity to test and refine approaches that integrate local cultural, social and economic development aspirations with effective biodiversity conservation. The presence of several MPAs and LMMAs in the four zones also provide favorable conditions to address the need to develop multi-site strategies to ensure biodiversity conservation and sustainable resource management at an ecosystem/seascape scale that would help to maintain viable species populations and ecosystem goods and services.

However, the existing coverage and LMMAs in the four zones are not easily adapted to creating new MPAs, especially large sites that would provide protection for long-term multi-ecosystem seascapes with their goods and services. Therefore, the MPA child project must look to other priority biodiversity areas (see Section 1.2.2) where there is little or no MPA coverage to meet the network expansion objectives of Aichi Target 11.

1.5 ENVIRONMENTAL PROBLEM, ROOT CAUSES AND BARRIERS

1.5.1 Environmental Problem

Aligning the child project with Aichi Target 11 means that it must address the overarching environmental problem of the loss of marine biodiversity owing to alteration/degradation of coastal areas and an overexploitation or inappropriate use of marine resources such as destructive fishing. This impacts globally threatened species and the sustainability of marine and coastal resources, and causes a decline in ecosystem goods and services. Details of the environmental problem are presented below.

Madagascar's marine ecosystems face numerous threats including habitat degradation and loss, overexploitation and climate change impacts (see the conceptual model and threats ranking in Appendix 4 and Appendix 3, respectively). A Transboundary Diagnostic Analysis (TDA) of the Western Indian Ocean region was undertaken in 2012 jointly, as part of the UNDP GEF Agulhas and Somali Currents Large Marine Ecosystems Project and the World Bank GEF South West Indian Ocean Fisheries Project. The TDA comprehensively identified threats to the marine and coastal ecosystems of the region, including Madagascar, and identified their proximate, underlying and root causes (ASCLME 2012).

Coral reefs are subjected to both anthropogenic and naturally driven degradation. In the most populated areas, the impacts on reefs are due to overfishing, destructive fishing, sedimentation, coral harvesting and pollution. Degradation due to natural disasters, particularly cyclones, is also very important in addition to coral bleaching. For reefs already under severe stress, the damage done by bleaching is sometimes considered irreversible. Threats to mangroves are due to increasing exploitation for fuel wood, charcoal and timber, and clearance for crops, particularly in the regions of Mahajanga, Menabe and Melaky and Diana. The other main threats to mangroves include migration of people to areas adjacent to mangrove forests due to drought. Sedimentation is also a major threat to mangroves. As a result of soil erosion due to destruction of vegetation in river basins through poor catchment management practices (shifting agriculture), 40 to 50 million tonnes of sediment are carried downstream and deposited in mangrove areas each year, causing degradation of the ecosystem (Cox et al., 2009).

[8] The center-west zone prioritized for biodiversity richness comprises two administrative regions but SWIOFish2 is only operational in one of the two. However, MRHP is actively supporting fisheries management in MPAs and LMMAs in both regions.

Due to their slow reproductive rates, sharks, rays and other cartilaginous fishes (Chondrichthyes) are very vulnerable to overexploitation. Official statistics on local production and export of meat and fins show an annual mortality of sharks by various forms of fishing from 200,000 to 600,000 individuals. In addition to targeted exploitation, approximately 50 species of sharks and rays of neritic and oceanic deep waters of Madagascar are caught as bycatch in the industrial tuna fishery (longline and seine fishing), industrial fisheries, industrial shrimp fishery, artisanal and traditional fisheries (ASCLME 2012b).

The coelacanth *Latimeria chalumnae*, has been reported from several areas of Madagascar, particularly in the Southwest, near Toliara (Anakao, Tsiandamba, Fiherenamasay) where several coelacanths have been caught since 1995. Due to their low population, slow reproduction and vulnerability, the coelacanth is classified as "critically endangered" by IUCN and listed in Appendix 1 of CITES. In Madagascar, there is no legal protection for the coelacanth, but the export of specimens is controlled by CITES and decrees dating from the colonial period.

Very few stock assessments have been conducted, but available data indicate that most fisheries are in a state of decline. The principal causes appear to be habitat destruction, inappropriate fisheries practices, increasing fishing effort / overexploitation, and climate change. Artisanal fisheries in Madagascar use cast nets and gill nets to catch medium and small pelagic fish species. Small pelagic fishes are also targeted by shrimp trawlers in all shrimp fishing zones, and consequently, there has been a significant decline of small pelagic fisheries in Madagascar (ASCLME 2012a, b).

In Southwest Madagascar, the octopus fishery (*Octopus cyanea*) is heavily exploited. Between 1994 and 2002, production increased from 50 tonnes to more than 700 tonnes. Fishing grounds cover 400 km of coast and involve some 60 fishing villages. By 2005, there were declines in catches and the Ministry of Fisheries announced a closed season and imposed a minimum size limit. This was effective, and further studies showed that a longer closure maximized the size of octopus, and more than compensated for the loss of catch during the closed season (Cripps and Harris 2009, Oleson 2011).

Sea cucumbers are an important export product for Madagascar and natural populations are now overexploited (Conand 1998), while overharvesting of the mangrove crab *Scylla serrata*, is common in the mangrove areas near coastal cities, although more remote areas still support harvestable stocks.

Dolphin species are still targeted by fishermen, particularly in the south-west region of Anakao, Madagascar, for consumption and sale of meat. The species targeted include the bottlenose dolphin (*Tursiops spp.*), the Indo-Pacific humpbacked dolphin, (*Souza chinensis*) and the long-beaked common dolphin (*Delphinus capensis*). The annual catch at Anakao was estimated to be between 100 and 150 spinner dolphins (*Stenella longirostris*), with smaller catches of large dolphin and Risso's dolphin (*Grampus griseus*) (ASCLME 2012). The artisanal fisheries also target shark using different types of gill nets and longline (Kizska and van der Elst 2012). In catch data collected for the artisanal fishery in Toliara in Madagascar, Hammerhead sharks (*Sphyrna* spp.) composed 29% of sharks caught by number and 24% of the total wet weight (McVean et al. 2006).

In recent years in Madagascar, small-scale (traditional) prawn fisheries have expanded and this has led to user-conflicts with the industrial trawl fishery, and the latter has withdrawn from some areas as a result; in some instances, the trawling companies purchase prawns from the small-scale sector. User-conflicts may be exacerbated by the trawlers catching and discarding large amounts of bycatch of fish species which form part of artisanal fisheries' catches (Fennessy, 2012)

Recent studies indicate that overfishing, marked habitat damage and reduction of commercial stocks caused by destructive fishing practices seriously threatens the livelihoods of many of Madagascar's fishers, in part due to

limited resources to enforce fisheries policy and laws. The general decline in productivity reveals a worrisome state of the marine resources.

Turtle catches in the southwest region have been estimated to be as high as 13,248 turtles per year. Apart from non-destructive fishing practices, sea turtles are affected by the offshore industrial fishery (longline and seine), fishing on the continental shelf, industrial shrimp trawling, fishing nets for shark and the traditional fishery using poison. Industrial trawling for shrimp is also an important cause of accidental turtle catches, but has never been scientifically evaluated in Madagascar. Approximately 40 species of seabirds are found around the coasts of Madagascar, including albatrosses, petrels, phaetons, frigates, boobies and terns. The main threat to endangered seabirds is egg collection which takes place on many continental islands off Madagascar that are accessible to fishermen.

During the Transboundary Diagnostic Analysis (TDA) undertaken jointly as part of the UNDP GEF ASCLME Project and the World Bank/GEF South West Indian Ocean Fisheries Project (ASCLME/SWIOFP, 2012a), one of the gaps noted in Madagascar in the context of more effective ecosystem-based management was the need for amendments to legislation to allow greater community involvement in designation and management of marine resources. The TDA also notes that weak governance capacity has made regulation and law-enforcement difficult and has also resulted in a lack of data being produced around the fisheries sector. Without such data and law enforcement, it is not only extremely difficult to measure and mitigate overfishing, but it makes policy implementation a serious challenge.

The TDA further noted that, In Madagascar, there was traditional management of coastal and marine resources, by villages. In recent years, however, there has been a loss or erosion of some of these traditional / historical good practices as coastal population densities have increased, because of inward or coastal migration, population growth, or as economies have developed.

The impacts on biodiversity arising from the above problems are exacerbated by climate change including rising sea temperatures, shifts in wind and rainfall patterns and increased coastal erosion. Climate change is closely linked to a greater frequency and extent of coral bleaching.

Appendix 4 provides the linkages between the specific environmental problem, the cause or threat creating that problem, what is driving that cause or threat, and the barriers that are preventing mitigation or removal of those drivers.

From Appendix 3, it is possible to prioritize and group the main drivers for marine and coastal degradation. The first three represent the highest priority in the context of drivers that need to be mitigated or removed with some urgency. The next three are also considered to be of on-going concern and are somewhat cross-cutting in driving the causes of threats to the marine environment and the barriers to their removal also need to be addressed.

1.5.2 Root causes Link to threats

Five root causes were identified during the PIF/PFD program development stage but with further consultation with experts and analyses two key factors are now singled out: the interlinked impacts of population growth and migration, and open-access to marine resources.

- ***Increased pressure on marine and coastal resources due to population growth, migration and market demand***

The effects of intrinsic population growth in coastal zones are amplified by changes in migration patterns and a global demand for seafood. New coastal villages are being established as the population expands and as landless migrants from inland areas seek new economic opportunities on the coast. Areas that were

traditionally avoided such as mangroves have recently been settled even though living conditions are often precarious. Migration to mangroves is in part driven by loss of fertile areas and forests resources as terrestrial habitats are cleared or severely degraded. In addition, the growing global and national demand for mangrove resources provides new opportunities for fishing and harvesting of crabs and shrimps. Finally, as terrestrial forests are cleared, the mangroves are increasingly perceived as rich and essentially freely accessible sources of timber and charcoal.

- ***A persistent open-access regime leading to over-exploitation and illegal harvesting of marine resources and threatened species***

This driver has its roots in traditional marine and coastal resource management practices that include seasonal migration to follow fish stocks or to avoid adverse conditions, as well as a traditional perception that the sea is open to all. While historically these practices and perceptions have probably had limited negative impacts, population growth and increased commercial demand for a wide range of resources now means that open-access is no longer tenable as engenders overexploitation and destructive practices. In addition, the ability of sedentary coastal communities to protect their resource areas from outside incursions has been essentially absent until the advent of locally managed MPAs and LMMAs. This has acted as a disincentive to investment into protection of local environmental goods and services.

1.5.3 Barriers

Barrier 1. Limited available resources constrain the number of MPAs/LMMAs that can be created or extended to ensure network expansion.

Madagascar's commitment to attaining Aichi Target 11 is constrained by the availability of resources that government and partner organizations can allocate to establishing new MPAs/LMMAs as a means to increase the size of the national networks. The constraints comprise several elements. First, the 2003 Durban Vision call to triple the national PA network incurred major commitments by government, donors and promoters. The estimated time to create and consolidate new PAs was significantly underestimated, especially as new community co-management approaches were being adopted and tested for the first time. Those PAs that were created as part of the Durban Vision require continued resource inputs from government and promoters, thus restricting allocation to new MPAs and LMMAs. Secondly, the co-management approach has proven to be a major challenge to communities as they have had no professional capacities beyond traditional local resource management: the legal requirements for MPA and LMMA management includes new skills such as establishing new formal management structures and procedures, as well as the adoption of new technologies like ecological monitoring.

Barrier 2. LMMA/OECM eligibility with respect to direct contribution to Aichi Target 11 is not defined.

While some LMMAs/OECMs have biodiversity conservation objectives and therefore are eligible for accounting under Aichi Target 11, it is likely that the majority target fisheries management of other economic interests and thus do not directly contribute to this national commitment. In the absence of a clear definition of LMMA/OECM eligibility in terms of their contribution to Aichi Target 11, it is highly probably that attaining this target will be significantly underestimated as sites with biodiversity objectives are omitting from the accounting process.

Barrier 3. Existing regulatory frameworks for MPAs and LMMAs are outdated or inexistent.

This barrier has four sub-components: a strong bias towards forest conservation and thus limited adaptation to marine environments; an overly complex and costly process to establish MPAs; an absence of a clear LMMA legal status and establishment process; and limited community ownership and user rights.

The current regulatory framework was developed at a time when most of Madagascar's conservation efforts were focused on establishing and managing forest PAs. Since the Sydney Promise and the consequent shift to

a better balance through MPA network expansion, there has been no push to adapt the older framework, with the result that the special conditions presented by marine and coastal environments are difficult to address from a management perspective.

The current MPA creation process is recognized by both government and promoters to be overly cumbersome and costly. This was an important reason why PA creation following the 2003 Durban Vision was slow while many promoters faced creation costs that greatly exceeded their projected budgets, especially for activities including site delimitation and demarcation.

As relatively new entities in Madagascar, there has been some limited but significant efforts to define their status and establishment process. This has proven to be a barrier to allocating an appropriate legal framework and recognition of the rights, roles and responsibilities of local communities and other stakeholders.

Continuing the latter observation, the ownership and user rights of communities managing MPAs and LMMAs remain unclear, with a consequent lack of security and confidence among these stakeholders. The limited resource offtake rights constrain several sustainable management options, while the short-term contracts covering the sites deter local investments in the sites and their resources.

Barrier 4. MPA and LMMA contributions to Madagascar's sustainable development are consistently underestimated relative to those of other sectoral developments.
This perception in Madagascar is encountered in many countries. While the contributions of PAs to sustainable development in general are improving in Madagascar, they are still consistently undervalued compared to such sectors as oil and gas, industrial fisheries and tourism. It is possible that MPAs in particular are beginning to change this view in small but incremental ways as individual sites demonstrate significant contributions to maintaining commercial fisheries or in ecotourism development. However, much remains to be done at the site level to demonstrate more convincingly that MPAs and LMMAs have significant contributions to make with respect to natural capital accounting as proposed under the National Development Plan. A specific barrier is the current lack of an active and coherent platform that brings together all development sectors and integrates them within a national planning framework; in the case of MPAs and LMMAs, the latter is presumably an MSP process. As a result, for example, new coastal development plans may not adequately integrate biodiversity and renewable marine resource utilization, leading to unnecessary conflict between sectors. In this perspective, it is of note that ICZM is generally only weakly developed.

Barrier 5. A persistent lack of MPA and LMMA management effectiveness.
This barrier has three sub-components: a lack of or limited management infrastructures and equipment; a lack of standardized, well adapted management toolkits and the capacity to apply them; and very limited attempts to recover costs for site-level management.

MPA and LMMA infrastructures and equipment may be costly to put in place and subsequently maintain, particularly given the nature of marine and coastal environments. However, these materials and equipment can greatly enhance management effectiveness. The high costs present a significant challenge but cost-effective solutions are likely to emerge.

While Madagascar has adopted a wide range of recognized management toolkits, their adoption is intermittent, and they are often poorly adapted to local MPA and LMMA conditions and capacity. Many are adopted to terrestrial conservation practices while a substantial number are too complex for adoption by co-managing communities and other local stakeholders. In summary, there is no standardized, well-adapted toolkits pack at the present time.

Finally, while several sites have developed promising approaches to increase revenues for communities through strengthened commercial value chains, only a very small number have considered mechanisms to allocate a

proportion to local management costs such as surveillance and monitoring. One obvious challenge is the acceptability of management cost recovery to local communities. This challenge means that the vast majority of MPAs and LMMAs are entirely dependent on external donor funding and thus have limited financial sustainability.

Barrier 6. Innovative local revenue generating mechanisms remain at pilot stage and have not expanded to scale and diversity.
The relatively small number of sites where community revenues have been increased is still limited to a few value chains including improved traditional fisheries – notably octopus, algaculture, sea cucumber farming, near-shore pelagic fishing and small-scale ecotourism. The reasons are varied. One explanation is that there was debate regarding the potential risks of linking natural resources extraction and management to sites that were established primarily for biodiversity conservation. Another possible reason is that historical natural resource management contracts issued to communities by government were principally aimed at ensuring continued access to resources involved in subsistence needs. In addition, communities and many NGO promoters have little experience in developing equitable agreements with the private sector to improve management of commercial value chains. The very limited number of attempts scale up and replicate improved value chains or to diversify options remains a significant barrier to providing viable economic opportunities to the many sites that have not yet been targeted.

1.6 BASELINE ANALYSIS AND GAPS

In overall terms, Madagascar benefits from a solid baseline that has been established through the actions of numerous institutions and organizations over the last two decades. The conservation community is diverse, and organizations work together on policy, planning and implementation throughout the country. Forums for cooperation and dialogue have been established that help to ensure that area-based conservation and sustainable management of natural resources is well coordinated.

1.6.1 Baseline for attaining Aichi Target 11 commitments

Madagascar's Sydney Promise commitment at the 2014 World Parks Congress is a solid baseline for MPA and LMMA network expansion to attain Aichi Target 11. The Sydney Promise Steering Committee was led by SEMer. It is anticipated that in the future it will be led by MEEF or MRHP. The Committee brings together other government ministries involved in managing the marine environment confirms the government's political commitment to Aichi Target 11. The steering committee integrates the interests of NGOs and CSOs who work with local stakeholders to promote MPAs/LMMAs and in so doing help Madagascar to meet the target. When the committee met June 2015, it confirmed that the Sydney Promise would focus on attaining Aichi Target 11 to have 10% of Madagascar's maritime zones classed as MPAs. It also made the decision to include LMMAs in the target wherever they were shown to be eligible and made a clear pledge to promoting community co-management of MPAs and LMMAs. The subsequent analysis of sustainable funding options that was coordinated by the steering committee provides some initial indications for future initiatives to finance the network. In addition, the CEPF-funded REBIOMA biodiversity priority mapping represents an essential first step in defining MPA and LMMA geographical priority areas as well as their integration into a national MSP process.

Additional MPAs are in the process of obtaining full legal protection or are planned. Over the next 5 years, it is expected that an additional >1 million ha of MPAs will obtain or significantly progress towards full legal protection. The following is planned or underway:

- Melaky Region in the center-west: The Barren Islands are located in Western Madagascar. Promoted by the NGO Blue Ventures, the site—which is 431,700 ha—has obtained temporary protection status. It is anticipated that the site will reach full legal protection over the next 5 years.

- Androy Region in the extreme south: WCS is planning to support the establishment of a relatively large MPA. The MPA would protect a biodiversity-rich undersea plateau that stretches far south of the mainland.
- Diana Region in the northeast: Conservation International plans to either extend coverage of an existing MPA in Northeastern Madagascar, Ambodivahibe, or support establishment of a new MPA in the same area.
- Boina Region in the northwest: It is anticipated that one or two existing MPAs including Mahavavy Kinkony will be extended by Asity (national representative of Birdlife International) over the course of the project.

Aichi Target 11 requires the coordination of numerous sectoral interests as well as a range of institutional roles and responsibilities. At national level, MEEF has the responsibility of developing policies, legislation and plans to manage and expand the MPA network. Within this framework, Madagascar National Parks is responsible for the specific policies and plans for its own network within the wider PA system. Within MEEF, DSAP manages a series of national commissions that were created in the mid-2000s to guide the Durban Vision. The commissions have been a means to bring together governmental and non-governmental stakeholders involved in the national PA system, and each has a specific task such as legislation, PA governance and prioritizing high value conservation areas. For MPAs, the Sydney Promise Steering Committee has assumed some of the responsibilities where they relate to Aichi Target 11. Since its relatively recent creation, SEMer has assumed some of the commissions' responsibilities, notably coordination of broad policy and strategies governing Madagascar's marine environment. With the dismantling of SEMer, it is anticipated that this role is taken over by MEEF or MRHP.

DSAP coordinates MPA network development (as well as terrestrial PAs) at site level. This requires working with a range of NGO, CSO, academic and private organizations that promote MPA co-management by communities and other local stakeholders. DSAP ensures that all policy guidelines, regulations, required reporting and other monitoring measures are carried out. However, MEEF/DSAP has provided some latitude to promoters so that they could explore and test innovative approaches to local MPA governance and management regimes. The same flexibility was also accorded to explore mechanisms that would create positive linkages between environmental health, effective biodiversity conservation, social wellbeing and economic development. While these approaches are still being refined, MEEF/DSAP ensures that pertinent information is widely shared. MEEF/DSAP recognizes the critically important role of non-governmental promoters and their local co-managers at site level. As noted earlier, the majority of promoters are NGOs including Asity (the national chapter of Birdlife International), Blue Ventures, Conservation International, WCS and WWF but national CSOs are progressively assuming the role of local promoter. At least two private companies have also promoted marine and coastal sites with local communities. Under MEEF guidelines, the non-governmental agencies ensure technical support to build local capacity regarding all aspects of MPA governance and management. They also broker agreements where appropriate with private enterprises to develop marine resource value chains including fisheries and ecotourism that bring increased revenues to communities.

The rapid emergence of LMMAs arising from a grass roots desire to secure the rights to local marine and coastal resources has been coordinated in large part through the MIHARI network that includes representatives from MEEF and MRHP. MIHARI provides a solid platform for dialogue between government, community members and NGOs and NGO promoters at the national level. More locally, LMMA communities have established local federations that facilitate exchanges between LMMA managers with shared interests. These also receive support from regional and local MEEF and MRHP personnel as well as their NGO promoters. Examples include Antongil Bay where Madagascar National Parks and WCS have promoted a federation of more than 20 community-based management groups, and Velondriake where Blue Ventures has played a similar catalytic role.

At a larger scale, the nascent national-to-local network linking CBOs, CSOs and NGOs provides a framework for exchanges, learning and the development of partnerships to address shared issues and aspirations. For example, the challenge of local user rights to resources is being addressed through dialogue between government and specialist network members working in the capital. The network provides additional support to similar initiatives undertaken by MIHARI, for example.

1.6.2 Baseline for Regulatory frameworks

The 2015 revision of the COAP provides for new governance and management systems based on IUCN categories and experiences accrued as the Durban Vision was implemented. MEEF led the revision process that involved input from all stakeholders including other ministries with interests in the national PA system, NGOs and CSOs. The revised law provides a solid legal framework for all protected areas in Madagascar and provides a clear foundation for co-management involving local stakeholders while also recognizing the role of protected areas and LMMAs in sustainable economic development.

The priority challenges regarding the COAP's regulatory frameworks are clearly understood by all stakeholders: the need to streamline the protected area creation process with an accompanying reduction in costs; the need to recognize the special characteristics of MPAs versus forest sites regarding the close linkages between conservation goals and development/livelihoods considerations; and the need for greater empowerment of local stakeholders as rights holders. This shared understanding will facilitate a process of addressing these challenges to improve the existing regulatory frameworks.

LMMAs currently have no legal status besides the local *dina* agreements. There have been ongoing discussions between government and MIHARI to explore options. These are based on a recently formulated LMMA charter defined by MIHARI members, as well as legal options assessments carried out by the same organization. LMMA stakeholders are also bringing government attention to LMMAs and their lack of legal status. Government recognizes the value of LMMAs to improved fisheries regulation (hence the existence of the SWIOFish2 child project) so solutions are expected.

1.6.3 Baseline for improved local livelihoods, well-being and economic development

The range of options to improve local livelihoods that has emerged through collaboration between technical services in MEEF and MRHP, local communities, NGOs and CSOs clearly shows that MPAs and LMMAs can be significant contributors to sustainable economic development. The following is taking place to improve local livelihoods, well-being, and economic development:

- Blue Ventures is supporting octopus harvesting, algaculture, sea cucumber farming and fisheries management in at least two MPAs and several LMMAs
- WCS is supporting fisheries and ecotourism in several MPAs and LMMAs
- WWF is supporting fisheries, octopus and algaculture management in four MPAs and LMMAs

More opportunities are worth testing to diversify social and economic development options.

1.6.4 Baseline for improved management capacity and effectiveness

Infrastructures and equipment. Madagascar National Parks will continue to ensure that MPAs have at least basic management infrastructures and equipment. It is also capable of raising funds for maintenance and replacement as needed. Most of the NGOs promoting MPAs and LMMAs will also ensure that essential materials such as boats and associated equipment are provided and will maintain or add offices and other required buildings that were established earlier. However, delimiting MPA boundaries through marker buoys is likely to be possible only in a small number of sites where existing funds have been secured. Indeed, it is possible that such traditional delimitation methods will prove to be too costly for most MPAs and prone to

losses through natural climatic conditions and theft. Some alternative mechanisms, as yet undefined, will therefore be developed.

Communities will continue to provide/maintain basic infrastructures and equipment with support from promoters including Madagascar National Parks. Based on experience to date, basic offices and material will continue to be developed for community use, as well development infrastructures such as refrigeration equipment where these are clearly required to develop fisheries value chains. The emerging partnerships between communities and the private sector where the latter provides technical training are likely to strengthen and/or increase in number. Given the success of equipping communities with fishing boats able to withstand sea conditions well offshore, it is possible that similar projects will be developed as a means to reduce pressure on fisheries in coral reef and other inshore habitats. However, under the business as usual scenario the options may be dependent on securing specific funds for such initiatives and therefore rather sporadic is time and space.

Management toolkits. As described earlier in Section 1, there are toolkits developed for PAs in general and MPAs in particular that are either in routine used in Madagascar or that are available for adoption and adaptation. These include:

Widely used toolkits:

- Miradi is used in many MPAs and LMMAs for management planning and monitoring.
- The standardized management effectiveness tracking tool (METT) is a requirement for MPAs under Madagascar National Parks. DSAP has recently required that the entire PA system fill out the METT on an annual basis.

Recently developed toolkits:

- SMART tracks threats and illegal activities and is deployed by several NGOs. SMART requires technical training and specialist materials, which will continue to be supplied by the promoters in the baseline scenario.

Available toolkits but with limited uptake:

- A marine ecological monitoring program managed by Madagascar National Parks is supported by a dedicated team of specialists. While this tool will continue to provide useful data, it is unlikely that MPAs outside of those managed by MNP will adopt this tool, as it exceeds the available capacity to implement it.
- The Indian Ocean Commission (IOC) has developed various toolkits for use in the region, but they are not widely adopted in Madagascar.
- The WIOMSA MPA toolkit (www.wiomsa.org\mpatoolkit.htm) was jointly designed by IUCN Eastern African Regional Programme, Western Indian Ocean Marine Science Association (WIOMSA), United Nations Environment Programme (UNEP), World Wide Fund for Nature (WWF) and Coastal Zone Management Centre (CZMC). It aims to support MPA managers in the Western Indian Ocean in a range of topics, including: Communications, Monitoring Coral Reefs, Energy Sources, Solid Waste Disposal, to Octopus and Sea Cucumber Fisheries.

Given that the limitations imposed by the current suite of toolkits for MPAs and LMMAs are widely known, MEEF, MRHP and their promoter partners will address these problems. However, it may be perceived to be lower in priority compared to other aspects of MPA/LMMA management and be only partially resolved in coming years under the current scenario.

Management processes for LMMAs will continue based upon local perceptions and customs together with technical inputs provided by supporting partners. SWIOFish2 will consolidate earlier MRHP fisheries management techniques to improve local practices and to develop new value chains and markets. In those LMMAs where biodiversity conservation is a clear objective, supporting partners will progressively introduce simplified management practices such as ecological monitoring, maintaining local associations, conflict management and basic skills such as accounting. Under the business as usual scenario projects such as Norad

and Sida will provide financial and technical support in this respect. In overall terms, management systems will continue to be essentially ad hoc, depending on supporting partners inputs and local culture. The MIHARI Platform strategic plan calls for the development of management toolkits adapted to local conditions. Their development and deployment will depend upon securing funds over the coming years and support from partner NGOs.

Site-based technical support and training. Capacity building at site level will continue to be provided by NGO promoters, ministry agents based at the regional level, SWIOFish2 and to a lesser extent by private companies. Training and exchange visits will be the main vehicle for building capacity and is a major component of projects such as SEEWOH and those funded by Sida and Norad. However, they will continue to be centered on the geographic regions where these projects occur so that many other areas with high marine biodiversity value are likely to have little opportunity for equivalent support. The project will build on Sida- and Norad trainings through a training-the-trainers approach to ensure wider capacity building under the project (see output 3.3).

Sustainable financing mechanisms at site level. All Madagascar National Parks MPAs are financially supported through government budgets and other funds provided to the parent organization. While the budgets are relatively limited, basic investment and recurrent costs are effectively guaranteed.

In MPAs and LMMAs outside of the Madagascar National Parks are dependent largely on project funding secured by promoter NGOs. Under the baseline scenario, promoter support for funding management activities include the following:

- WWF is funding management activities in the Nosy-Ve – Androka, Kirindy-Mite, Menabe Antimena, Tsimembo Manambolomaty and Nosy Hara protected areas as well as numerous LMMAs associated with them.
- Blue Ventures is funding management activities in Velondriake, Kirindy-Mite and Barren Islands protected areas together with numerous LMMAs associated with them.
- WCS is funding management activities in the Ankarea, Ankivonjy, Soariake and Andreba MPAs. It also supports several LMMAs and a fisheries reserve in Antongil Bay in the northeast.
- CI is funding management activities in Ambodivahibe in the northeast.

This type of funding will continue with support from a range of internal funding sources and external support form bilateral agencies and private foundations. With respect to the latter, FAPBM will continue to raise funds to support selected sites including MPAs and, where possible, associated LMMAs. These funds are likely to be maintained in the foreseeable future but it is possible that there will be periodic gaps at certain sites. The funding will be largely continued to be concentrated in areas where promoting NGOs are already active although some new sites already noted are exceptions.

The promotion of income generating mechanisms through improved fisheries, ecotourism and development of new markets improves the wellbeing of coastal communities and provides them with economic opportunities. This has the clear additional benefit of incentivizing local community support for their MPAs and LMMAs as they accrue tangible benefits from their presence. However, management cost recovery to finance at least some management activities such as surveillance and monitoring are unlikely to be developed in more than a handful of MPAs and LMMAs under the business as usual scenario. The reasons include the still tenuous improvements in generating new revenues for the communities themselves and the complexity of developing mechanisms that are acceptable to community members. In such a scenario, management cost recovery will remain very limited with MPAs and LMMAs outside of the Madagascar National Parks network continuing to be essentially dependent of project funding through promoting NGOs.

1.6.5 Baseline for partnerships and cooperation

In overall terms, the existing spirit of cooperation and partnerships with respect to MPAs and LMMAs is likely to strengthen further even if the MPA child project did not exist. Multi-partner projects including SEEWOH and programs supported by Norad, Sida and SWIOFish2 will continue to facilitate partnerships and cooperation in the regions or sites that they support. They will continue to provide opportunities such as cross-project training of trainers, site visits and exchanges, private sector-donor-community and joint efforts to ensure gender and diversity equitability. The only limiting factor may be the relatively limited geographical coverage that the above projects provide, thus limiting replication in other marine biodiversity priority zones.

The principal gaps regarding MPAs and LMMAs in Madagascar can be grouped into five broad categories and include the following.

1) **A lack of a clear science-based and socially well-adapted strategy and action plan to expand marine and coastal biodiversity protection in order to attain Madagascar's Aichi Target 11 commitments**. There is adequate available information defining areas of high marine biodiversity conservation value, and government and non-government MPA/LMMA promoters have accumulated considerable knowledge of the social and cultural factors influencing success at the site level. The Sydney Promise Steering Committee is also well able to guide the process of MPA/LMMA network expansion once an action plan has been developed. However, until a consensus-based plan is developed, there is no clear process that will produce the required strategy and action plan to implement Madagascar Aichi Target 11 commitments. The strategy and action plan is dependent on defining the role of government and non-its non-governmental partners, especially as the latter are required at the site level. Finally, criteria to determine whether individual LMMAs can be accounted in terms of their contribution to Aichi Target 11 do not yet exist.

2) **Lack of resources to expand the MPA/LMMA networks**. The departments responsible for MPAs within the MEEF has relatively small central teams in the capital. The MEEF division is represented at region level and at sub-regional (district and commune) levels but staff complements are still relatively small and they are responsible for all of MEEF's policies and actions within their respective areas of intervention. Madagascar National Parks has a policy of limiting the number of permanent employees at site level but compensates by working closely with local community members, contracting out selected activities to them. In some cases, NGOs provide additional technical assistance upon request. Furthermore, NGOs and CSOs have invested their efforts over the previous decade and half in attaining the Durban Vision goals laid out in 2003. Their efforts to support government goals of PA network expansion means that these organizations have at best relatively limited resources including technical personnel to take up new initiatives in additional geographical areas. Most if not all NGOs have mid- to long-term strategies and action plans that focus investments within the framework of manageable geographical at technical limits in order to maximize the likelihood that their impacts at site level are significant.

3) **A lack of regulatory frameworks well adapted to MPAs and LMMAs**. The revised COAP is a solid legal foundation for all PAs. However, the regulatory framework for PA creation is overly complex and costly. Those frameworks regulating governance and management of PAs are also too strongly orientated to forest environments and may be difficult to apply to MPAs. In particular, does not adequately empower local communities in such a way that enhances their food security and livelihoods. In brief the regulatory framework does not adequately recognize the strong dependence of local economic development on marine resource use. With respect to LMMAs, there is an existing charter developed by the MIHARI Platform. However, there is as yet no regulatory framework governing them. A further complication is that they are coordinated by the fisheries ministry while MPAs are coordinated by the environment ministry.

4) **A lack of standardized tools well adapted to MPAs and LMMAs**. Many tools are available to MPAs and LMMAs but few are well adapted to conditions in Madagascar, notably co-management with local communities and sustainable use of natural resources.

5) **An absence of mechanisms to meet management costs at site level**. While several sites and their promoters are developing successful mechanisms to increase revenues through sustainable management of natural resources, very few are exploring ways in which some of the increases can be systematically re-allocated to cover at least basic management costs. This means that most sites will remain entirely dependent on their promoters securing funds through grants or other sources.

1.7 OPPORTUNITIES & LINKAGES (GEF & NON-GEF INTERVENTIONS)

There is a suite of ongoing marine conservation and fisheries management initiatives in Madagascar that are being supported by a wide array of donors and implemented by several agencies. An overview of these is provided below.

1.7.1 GEF supported programs

SWIOFish2. The SWIOFish2 child project supported by the GEF and the World Bank will have close ties with the MPA/LMMA child project in the three geographic areas where the two overlap: Antongil Bay in the northeast, the Diana Region on the north and Melaky Region in the west. The ongoing collaboration between MEEF, MRHP and MPA promoters, for example in Nosy Hara Marine National Park and the southwestern Atsimo Andrefana, will continue even though SWIOFish2 may not be active in all areas. ***Coordination with SWIOFish2 Child Project*:** Coordination with the SWIOFish2 child project is described in Section 3: Implementation Framework and Implementation Arrangements.

Strengthening the network of new protected areas in Madagascar. This project (GEF ID 5351) will overlap geographically at three sites in the northwest and west of the country where it targets strengthened local capacity to manage mangroves. In effect, much of the work described in the PRODOC has already been carried out except in the Morondava River delta. As the MPA Child project overlaps with all but one mangrove site target by Project 5351, efforts will be made to ensure complementarity of added value where applicable.

1.7.2 Government policy initiatives

Sydney Promise. It is clear that Madagascar's Sydney Promise commitment to Aichi Target 11 is the underlying reason for the MPA child project. In this way, the latter focuses on supporting and catalyzing activities that the Sydney Promise Steering Committee needs to undertake to attain the stated target. Although several projects support the steering committee's endeavors, the child project is by far the most comprehensive in attaining Aichi Target 11. ***Coordination with the Sydney Promise Steering Committee***: The coordination mechanisms are described in Section 3.

M2PATE. The M2PATE initiative 'Synergy and spatial coherence within the Sectoral Program and National Land-use Strategy' is a key vehicle for mainstreaming MPAs/LMMAs within Madagascar's stated aim to base economic growth on a natural capital accounting system. The collaboration between M2PATE, WWF and REBIOMA to map ecological infrastructures that are considered to provide vital ecosystem services underpinning sustainable economic development will strengthen the arguments required to justify MPA and LMMA mainstreaming in future multi-sectoral planning involving sectors that have historically been deemed to be vastly more important, including fisheries agriculture and extractive industries. ***Coordination with M2PATE***: Coordination with M2PATE will be through the Sydney Promise Steering Committee who will organize regular meetings and briefings on progress towards integrating MPAs and LMMAs into the national marine spatial planning process.

BIOFIN. Madagascar's BIOFIN project is potentially highly complementary to the MPA child project. Although its objectives have yet to be determined based on ongoing analyses, it is possible that it will propose mechanisms for MPA sustainable financing. If this is the case, there will be opportunities to link the child

project's management cost recovery initiatives at site level with the broader BIOFIN objectives. ***Coordination with BIOFIN***: Coordination will be ensured through the MEEF which is the government agency responsible for BIOFIN.

1.7.3 Additional important organizations

FAPBM. The foundation will manage the financial aspects of the child project. ***Coordination with FAPBM***: The coordination mechanisms are described in Section 3.

Madagascar National Parks. Madagascar National parks is responsible for eight MPAs, all of which are associated with LMMAs. Although all of its sites are within the equivalent of IUCN Category II classification, the organization continues to develop innovative ways to integrate local community aspirations into marine park management through a shared management approach. The ***Sustainable coastal fisheries (SCF)*** project funded by the government of Germany and coordinated by Madagascar National Parks is located in six zones already identified as priority areas for biodiversity conservation. Five of its intervention zones (the exception is Antongil Bay in the northeast) are in areas where SWIOFish2 is not present. Given the similarity of the SCF and SWIOFish2 goals with respect to improving coastal fisheries management and improved local livelihoods, the SCF project should provide many opportunities for cooperation with the child project as it is designed increase local well-being through improved marine and coastal resource management in and around MPAs. SCF is also supporting MIHARI efforts to strengthen local marine resources user rights in these areas. ***Coordination with Madagascar National Parks***: The PMU and Madagascar National Parks will organize regular meetings to define how and where cooperation at the site level can be organized and with respect to national lobbying efforts.

1.7.4 NGO MPA/LMMA promoters

MIHARI. The MIHARI Platform's strategic plan provides an excellent opportunity for the child project to address a range of its objectives, notably those that concern an improved regulatory framework covering local user rights to manage marine and coastal resources sustainably. The MIHARI platform should also play a role in sharing information with its community members and their partners through its organized meetings program. MIHARI members will also provide feedback to the child project on issues that concern them throughout the country. Individual member organizations may apply for child project grants for specific sub-projects. ***Coordination with MIHARI***: The PMU will review the potential role of MIHARI and draw up contracts as required.

WCS. WCS's long commitment to MPAs and LMMAs in Madagascar means that it is a key partner in developing and implementing the child project. It's MaMaBay program in the northeast with its long-established restricted fisheries zone as well as its interventions to develop MPAs in the southwest and northwest present a wealth of experience with respect to the child project's objectives. Its stated aim of establishing a large new MPA in the waters off Madagascar's most southerly point will contribute significantly to conserving key areas of high marine biodiversity value on the coastal shelf, thereby contributing significantly to Aichi Target 11. WCS is also a leader in marine biodiversity research and environmental monitoring in Madagascar and at a global level,
WCS established REBIOMA, Madagascar's principal biodiversity database. REBIOMA will undoubtedly continue to be involved in developing and supporting Madagascar's Aichi Target 11 strategy and action plan.

Blue Ventures. The pioneering work of Blue Ventures in developing LMMAs and linking them within an MPA framework is one reason why it is a desired partner with the child project. Secondly, its intention to establish the largest MPA in the Madagascar to encompass the Barren Islands and the adjacent coast means that it is a significant contributor to Aichi Target 11. Blue Ventures is also continuing to explore ways to improve overall livelihoods conditions in the areas where it works, including the promotion of health and education. The

organization is also building significant experience in other tropical regions, including the Caribbean, the Western Indian Ocean and the Pacific, facilitating a sharing of knowledge between cultures and communities.

Conservation International. CI's contribution to marine biodiversity inventory work has been instrumental in defining priority areas to establish MPAs. Its work in promoting and defining marine KBAs has and will continue to be valuable with respect to MPAs and designing ecosystem-level approaches to marine conservation.

WWF. WWF's ongoing marine conservation and sustainable resource use initiatives are highly complementary to the aims of the child project. These include its NMCi, Leading the change and Mahafaly projects offer opportunities for partnerships with national, regional and local organizations that can contribute to the child project. WWF also works in partnership with M2PATE and REBIOMA to support MPA/LMMA integration into the national MSP process.

Additional NGO promoters. The range of NGOs supporting MPA and/or LMMA development is reflected in the MIHARI list of promoting organizations. Three are mentioned here because of their MPA contributions. ***Fanamby*** has been particularly innovative with respect to promoting partnerships between local communities and the private sector to develop joint ventures that will generate local revenues for community members. It's role as promoter of the Loky-Manabato new PA in the northeast means that it is working with local communities to conserve tern and sea turtle nesting sites. The engagement by the NGOs ***DWCT*** and ***Asity*** to extend existing terrestrial PAs to conserve marine biodiversity is also an opportunity to contribute to Aichi Target 11.

Cooperation with NGOs: The above and other organizations will be invited to bid for sub-grants provided through the child project. These sub-grants are described in more detail in Section 2 and the cooperation mechanisms are presented in Section 3.

1.7.5 Overview of linkages and opportunities

The MPA child project is designed to capitalize upon the synergy and opportunities provided by the above-mentioned linkages. Sharing knowledge will help to strengthen capacity in MPA and LMMA management in Madagascar and, in turn should provide opportunities to share experiences with other countries will comparable programs. The areas where the objectives of different programs and projects overlap provide excellent opportunities for cooperation such as training of trainers and enhanced knowledge sharing throughout the country. Finally, the child project is the only one that focuses entirely on fulfilling Madagascar's Aichi Target 11 commitments. As such, it provides opportunities for other organizations to contribute to this objective.

SECTION 2: GEF INTERVENTION STRATEGY

2.1 PROJECT SCOPE, VISION, AND OBJECTIVE

The Government of Madagascar has made a clear commitment to contribute to Aichi Target 11 by tripling marine and coastal MPA and LMMA coverage by 2025. The government is also committed to developing strategies and actions that will encourage MPAs and LMMAs to contribute significantly to sustainable economic development based on effective conservation and rational use of marine resources. A range of past and ongoing GEF projects, together with additional initiatives funded by other donors, provide a solid platform for attaining these commitments. The present project is a timely opportunity to implement Madagascar's Sydney Promise, namely expansion of the existing MPA and LMMA networks and ensuring that management effectiveness reaches acceptable levels at all sites.

The overall objective of the MPA child project is to ensure ***Madagascar's marine biodiversity and productivity are effectively managed through a sustainable, resilient national network of MPAs.*** In effect, ***the MPA child***

project is to be the principle mechanism to implement Madagascar's Sydney Promise and make considerable progress towards its Aichi Target 11 commitments. In this definition, MPAs will include all sites that are governed under the COAP and will include those LMMAs that are eligible to contribute directly to Aichi Target 11 based on IUCN/CBD guidelines. The project's overall target is to catalyze and support a process that increases MPA coverage in Madagascar from the present 1.1 million ha to more than 2.1 million ha. This ambitious target requires that MPAs are extended or created and that a significant number of LMMAs legitimately contribute to the increase in conservation area. During the PIF/PFD project development stage, the MPA project identified four priority areas: Antongil Bay in the northeast; the Diana Region, particularly the northwest coast and islands; the Melaky and Menabe Regions in the west; and the Atsimo-Andrefana Region in the southwest (see project maps in Appendix 1). These were selected on the basis of best biodiversity knowledge available, and to ensure overlap with SWIOFish2 priority areas to facilitate cooperation between the two child projects. Three of the SWIOFish2 intervention areas, Antongil Bay, Diana and Melaky and will remain priority areas for the MPA child project so that the two projects can work together under the larger programmatic approach. In addition, the original MPA priority zones already have relatively extensive coverage by gazetted MPAs although the Melaky Region has no MPA coverage at present. However, a proposed new site, the Barren Islands, has completed creation Procedures I and II to obtain temporary protection as a step towards gazettement. The proposed Barren Islands site will be Madagascar's largest PA. The presence of these sites does provide an excellent opportunity to refine and consolidate governance and management practices, while in some cases nascent economic development initiatives based largely on fisheries could also be built upon to explore successful linkages between biodiversity conservation and sustainable natural resource use. The presence of several MPAs and LMMAs also provides opportunities for collaborative planning to promote ecosystem or seascape level management strategies.

The most promising opportunities for attaining the Sydney Promise and Aichi Target 11 are largely found outside the four priority MPA/LMMA zones previously defined. The geographical priorities for biodiversity conservation already defined by the SEMer-led analysis show that the best opportunities lie outside these zones where biodiversity value is high but MPA/LMMA limited or nonexistent (see Appendix 1).

The child project contributes directly to the overall program objective integrating the SWIOFish2 child project: ***Strengthened management of Madagascar's marine biodiversity and productivity***.

The MPA child project was developed through an 18-month consultative process open to all interested parties. It began with an in-depth analysis that was used to create a conceptual model to determine how best to leverage the Sydney Promise, namely where the project should target its efforts to attain Madagascar's Aichi Target 11 commitments. The conceptual model identified conservation targets, as well as drivers, threats and barriers that prevented achieving desirable conditions defined in the project's results chains (Appendix 5). The project's goal and strategies were reviewed through a series of public stakeholder meetings and additional consultations. The stakeholders ranged from local communities involved in MPA/LMMA management, region-level administrations, central government agencies involved in the Sydney Promise process, NGOs and other CSOs, and the private sector. The MPA child project interventions are derived from the analyses carried out to define the results chains. Based on these analyses, a simplified theory of change is presented in Figure 2 and described in Section 2.4. As part of the programmatic approach, coordination with the World Bank-led SWIOFish2 child project links sustainable fisheries and MPA/LMMA development as the most successful approach for Madagascar.

2.2 CONSERVATION TARGETS

The project has identified specific targets for both biodiversity conservation and human wellbeing, using the analytic tool MIRADI and through a broad stakeholder consultation process. Biodiversity targets can be a species, habitat or ecosystem. They can also be a 'groupings' of species that require similar habitat requirements or management approaches. The consultation process identified three principal habitat targets, coral formations, seagrass beds and mangroves, together with a number of threated species of which several are endemic to

Madagascar. In reality, it is unrealistic to define indicators for all potential target species and only the most useful or practical ones can be included in the scope of this project. Table 2 provides a summary of those conservation targets already identified and how they will be monitored. The project's conservation targets feed into the overall project result chains (see Appendix 5)

Table 2 Conservation targets

Conservation Target	Monitoring
Coral formations	To be systematically monitored in all project intervention areas. Where cost effective, MPAs should be compared with neighboring and nearby areas/areas of similar species and habitat type. Rapid survey / community-supported techniques are among a standard package of management toolkits to be adopted or developed.
Mangroves	Already being monitored. Simple long-term monitoring strategies can be adopted using remote sensing techniques (e.g. Google earth, satellite, aerial surveillance).
Seagrass beds	Limited information currently available. Need to capture baseline information from partners and other research/scientific bodies working in the areas and define a monitoring program.
Sharks and Rays	These will be monitored primarily through fishing and catch data.
Marine Turtle Species	Significant Monitoring efforts required focusing on the Nosy Hara MPA and the mid-western priority MPA zone where partners have established initial monitoring programs.
Tern breeding colonies	The most important breeding areas are within the Nosy Hara MPA and Barren Islands but additional important species areas may be targeted where cost effective.
Endangered endemic birds	The two most relevant are the Madagascar teal and the Madagascar fish eagle. Populations can be monitored at site levels of through a contracted expert partner for more extensive coverage.
Marine mammals	The complexity and relatively high costs involved may mean that only a few sites where expert partners are involved in this type of monitoring.
Renewable marine resources	At present these are selected fisheries, algae and sea cucumbers, although illegal coral collection and excessive shark/ray harvesting do exist. Monitoring data will be collected at site level.
Human wellbeing	Where innovative mechanisms involving sustainable use of marine resources, partners will systematically collect data and, in some key areas, household incomes and other social attributes.

2.3 DIRECT AND INDIRECT THREATS

The MIRADI analysis used to identify conservation targets also identified the threats they face. These were classified as either direct or indirect threats. The analysis ranks the degree of threat across all conservation targets, a ranking by individual conservation target, and a cumulative rating for the project. Overfishing, collecting and hunting, and sea level rise were ranked as the highest threats while sharks and rays together with marine turtles were identified as the most threatened conservation targets (HIGH threat, second highest possible score). The overall level of threat to the project's conservation targets was HIGH (see Appendix 3).

2.4 PROJECT STRATEGIES AND EXPECTED RESULTS (GEF Project Components)

Based on the conceptual model and results chains, the project's ***theory of change*** defines three complementary components accompanied by an appropriate monitoring, evaluation and learning component to help ensure adaptive management and to share lessons learned (Figure 2). From this overall project theory of change, a set of strategic interventions was developed to inform the overall project's design (Figure 3).

Figure 2 Project theory of change derived from conceptual model and results chains

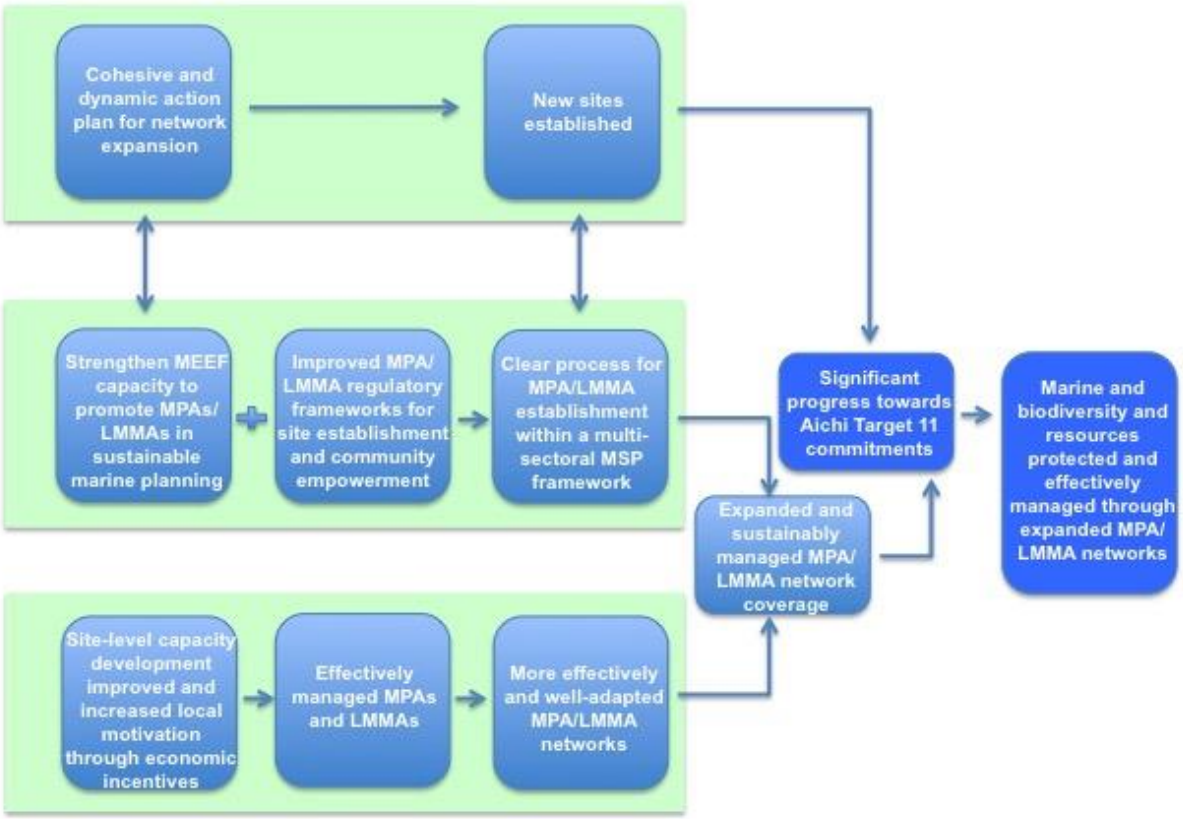
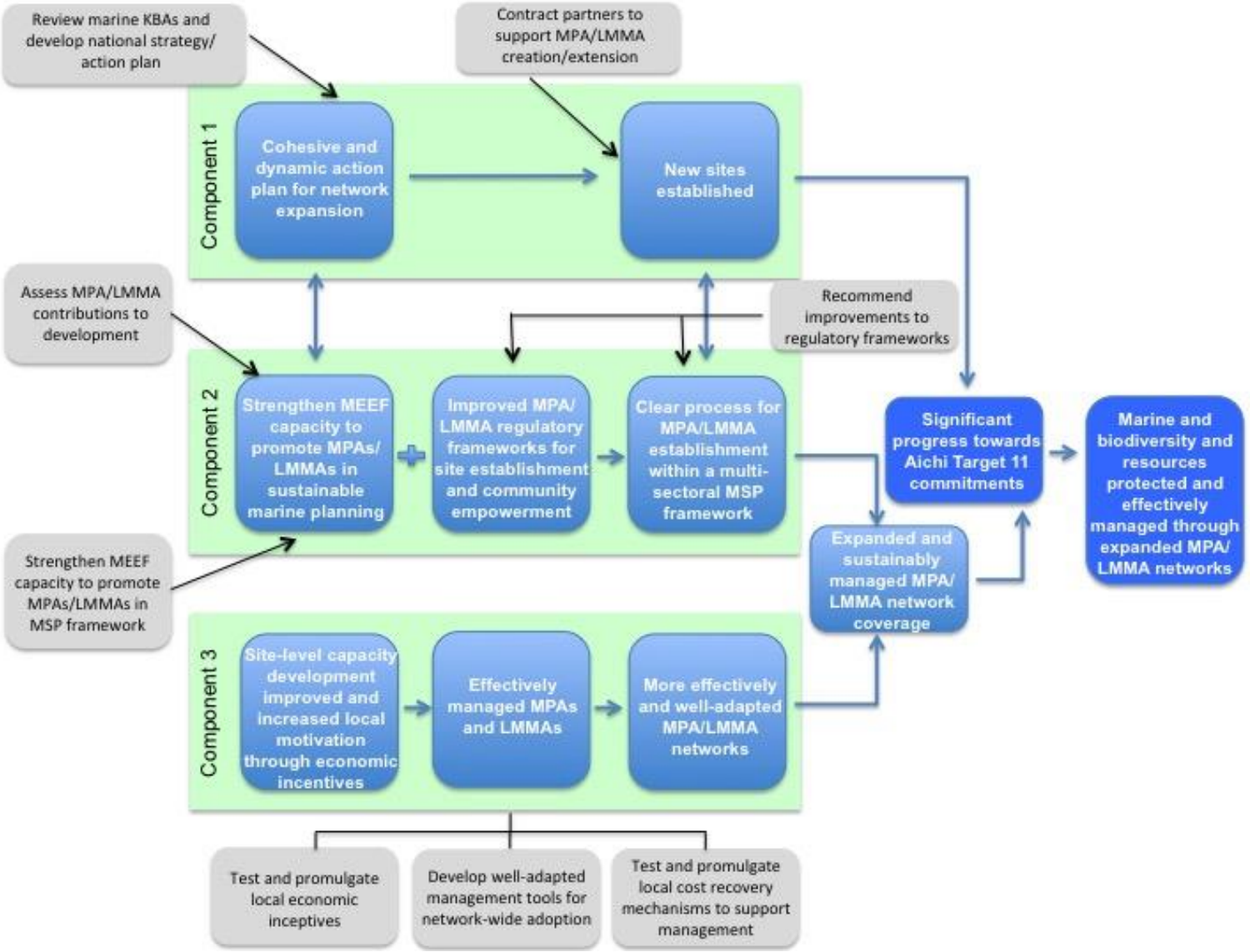


Figure 3 Strategic interventions based on the theory of change



The Sydney Promise commitment to make progress towards Aichi Target 11 is the core of the project and is encapsulated in **Component 1**: **Establishing an extended, representative and sustainable network of coastal and marine protected areas and LMMAs**. The underlying hypotheses is that if a Sydney Promise strategy and action plan is developed and implemented, the MPA and LMMA networks will be expanded through new or extended sites. The basic premise framing the hypothesis is that marine and coastal KBAs are clearly defined and that additional scientific information is integrated to ensure that geographical and ecosystem factors to define priority geographical areas. An additional premise is that MEEF's partners promoting MPAs and LMMAs are motivated to extend their support to new areas where they are currently not present.

In order for Component 1 to be achieved, a second component must establish key enabling conditions that are favourable to MPA/LMMA network expansion and consolidation. This is **Component 2: Building a robust enabling environment for MPAs/LMMAs.** This requires that the existing protected areas regulatory framework derived from the COAP must be revised and updated to adapt them to the specific needs of MPA governance and management. Specifically, there is a need to streamline to MPA creation process in order to reduce complexity and cost, and to clarify the roles and responsibilities of local rights holders with respect to MPA and natural resources management. The latter must therefore recognize the close linkages between maintaining a healthy and productive environment as well as the dependency of many coastal communities on them for their well-being. In parallel it is essential a well-defined and equitable legal and regulatory framework is established and applied to LMMAs, especially those that are not integrated into MPAs[9]. This is essential if LMMAs are to effectively maintain or restore the environment and its productivity. Finally, the MEEF should have the institutional capacity to promote the interests of MPAs and LMMAs in national and regional development plans, particularly through the emerging multi-sectoral MSP process.

Components 1 and 2 are essentially national objectives, although clearly the former requires interventions at the local level where MPAs and LMMAs will be created or extended. The success of Component 1 is again contingent on building and consolidating management capacity and effectiveness. This objective is encapsulated in **Component 3: Enhancing management effectiveness and contributions to sustainable development through MPAs and LMMAs at site level**. This assumes in that Component 2 will be successful in establishing favourable conditions for MPA and LMMA governance. The key selected themes of Component 3 based on experience to date include: (i) innovative ways to increase local stakeholder revenues to improve livelihoods and to strengthen their motivation to manage healthy MPAs and LMMAs; (ii) voluntary cost recovery from increased local revenues as a means to finance routine management activities; and (iii) enhanced management effectiveness through essential infrastructures and equipment, the development and deployment of management tools that are well adapted to local conditions.

Lastly a fourth component aims to ensure long-term sustainability of the project's results. **Component 4, knowledge management, monitoring and evaluation** reflects the requirements of the Government of Madagascar, the GEF and WWF to ensure that progress is measured against a clear overall results framework with clear time-lined expected intermediary results.

Together with the SWIOFish project, successfully achieving the outcomes of Components 1 – 3 will help Madagascar make significant advances with respect towards attaining its Sydney Promise and Aichi Target 11 commitments. As a result, it will help to ensure that marine and coastal ecosystems as well as their services and species will be healthy and productive.

There are several assumptions built into the theory of change. First, although overall capacity is relatively low in Madagascar, Government and NGOs/CSOs have built effective partnerships to establish and consolidate a network of MPAs and LMMAs over the past 15+ years. The assumption is that this effective partnership will be maintained, and the joint capacities of this partnership will be leveraged to deliver on this ambitious project. As an example, WCS has committed to launch an ambitious MPA project at the southernmost point of

[9] There are many LMMAs within MPAs and these are governed by the COAP and its associated regulatory framework.

Madagascar. Such commitments are clearly reflected in the co-financing tables and are based on experience gained over the past 15 years. In addition, although the child project is the most ambitious of its kind in Madagascar, other projects are supporting LMMA and MPA in highly complementary ways. It is assumed that these will continue over the coming few years.

More broadly, the political environment is evolving and has periodically undergone major upheavals. Most of the political evolution is positive as it is based on a clear recognition that biodiversity is a major foundation for sustainable economic development. Organizations working in close coordination with MEEF for PA system development provide consistent support throughout this changing political environment.

A second assumption is that, as the project evolves, local community members will develop stronger local MPA/LMMA management capacity through support from this project, SWIOFish2 and additional baseline initiatives. Based on experience, this remains a challenge but one that is manageable if the targeted approach proposed in the following sections are maintained. This assumption is supported through the continuing efforts of Malagasy NGOs/CSOs to strengthen the capacity of local community-based organizations, which includes lobbying for the necessary policy and legislation improvements and ensuring that financial resources are effectively and efficiently distributed and used.

Another assumption is that local community and broad public support for MPAs will continue to increase. At the local level, it is becoming increasingly clear that well-managed MPAs and LMMAs can provide opportunities to local communities to strengthen their ability to control and benefit from their own resources. One of the underlying premises within this assumption is that agreements between communities and the private sector will continue to grow to help improve management of marine and coastal resources for the benefit of both.

Finally, it is assumed that climate change impacts will continue to be systematically integrated into MPA/LMMA planning monitoring through the use of tools such as CAMPA.

COMPONENT 1: ESTABLISHING AN EXTENDED, REPRESENTATIVE AND SUSTAINABLE NETWORK OF COASTAL AND MARINE PROTECTED AREAS AND LMMAs

Component 1 is a mechanism to catalyze and support Madagascar's Sydney Promise made at the 2014 World Parks Congress to make progress towards Aichi Target 11, namely the expansion and consolidation of the existing marine conservation network comprising both MPAs and eligible LMMAs. The component principally addresses barriers 1 and 2: **Barrier 1** – **Limited available resources constrain the number of MPAs/LMMAs that can be created or extended to ensure network expansion; and Barrier 2 – LMMA/OECM eligibility with respect to direct contribution to Aichi Target 11 is not defined**. The required steps include a revision of proposed marine and coastal KBAs using the updated IUCN criteria, the determination of LMMA/OECM eligibility to contribute to Aichi Target 11 based on IUCN guidelines, and the production and implementation of a national strategy and work plan for Aichi Target 11. Implementation of the plan will be achieved through sub-grants awarded to MPA/LMMA promoters based on a set of criteria yet to be defined.

For reasons described in Sections 1.2.2, 1.4 and 2.1, Component 1 priority will be given to support the creation of new MPAs and LMMAs in high value biodiversity areas identified by CEPF/REBIOMA mapping outside of the four PIF/PFD priority zones. Exceptions may include extension of existing MPA coverage and/or new MPAs that provide additional mosaic coverage that contributes to an ecosystem-scale rather than site-level conservation. This guideline is not rigid, and arguments can be made on a case-by-case basis.

Component 1 involves capacity building at all levels from local to national, consolidating skills required at international levels such as formulating Madagascar's commitments to global conventions. The process of

attaining Aichi Target 11 goals under Component 1 will involve capacity building on critical aspects such as KBA identification/ confirmation and lessons learned exchanges using the past experiences of promoters and the new experiences gained through the child project. These will help to inform the Sydney Promise Steering Committee in its guidance of the Aichi Target 11 process (Outcome 1.1).

It is clearly recognized that while MEEF is the lead agency for the Sydney Promise implementation process, many other government agencies, including the ministries responsible for fisheries, maritime transport and marine spatial planning are important players. This is recognized in part by their inclusion in the Sydney Promise Steering Committee, an organ that will be used to help ensure coordination through dialogue and formal meeting reports/agreements for the project. In addition, the two child project PMUs will closely coordinate on fisheries issues and will invite other ministries to attend their regular exchange meetings, joint planning and reporting sessions as appropriate.

Outcome 1.1 Aichi Target 11 implementation strategy and action plan for the Madagascar marine and coastal environment developed based on best available science.
The main tasks are the following: (i) complete MPA/LMMA priority mapping, including revised KBAs; (ii) define eligibility criteria for LMMAs/OECM with respect to Aichi Target 11; and (iii) participative development and implementation of a strategy and action plan to attain Aichi Target11. Developing and implementing this outcome will integrate appropriate capacity building measures. Examples of capacity building measures will include a series of lessons learned exchanges where promoters supporting well established MPAs/LMMAs will share their experiences among themselves and with others. A second example will include exchanges regarding community private sector partnership development in order to identify successful approaches that can be integrated into new MPAs/LMMAs. These exchanges will take place through the multi-stakeholder workshops indicated in the following sections.

Output 1.1.1 New KBA Maps and accompanying documentation identifying priority areas for expansion, and which represent major marine and coastal ecosystems and global threatened species' conservation needs.
This output is intended to review and update marine KBA proposals based on new IUCN selection criteria while also integrating the results with the recent priority mapping of marine biodiversity. Other factors such as MPA governance categories and local social and economic aspirations will also be considered, adopting a similar approach to that used to define the 2003 Durban Vision planning process for terrestrial biodiversity. In addition, the Sydney Promise process will integrate approaches that foster MPA conservation at an ecosystem scale rather than simply at site level. Having well-defined marine KBAs provides a solid scientific foundation for proposing new MPAs and LMMAs. They are particularly important in defining priority areas taking into account globally and locally endemic threatened species. The expert knowledge and most of the technical arguments from earlier efforts to define marine KBAs using the now outdated IUCN criteria exist already so this process is expected to be relatively uncomplicated. It is possible that the existing marine biodiversity priority mapping may be updated with new information becoming available (including priorities set for other development sectors such as fisheries) but this is not expected to change the current map significantly. The activities for this output are as follows:

- Experts' workshop organized by MEEF to re-evaluate existing marine/coastal KBA proposals together with identification of threatened species and factors affecting their decline by key stakeholders using new IUCN/CBD criteria.
- Consultancy to do mapping and documentation.
- Sydney Promise Committee presents analysis for government approval Council of Ministers for government approbation.

The recent REBIOMA exercise (described in Section 1.2.2) to identify priority marine and coastal areas is a useful foundation for establishment and expansion of new sites. The processes used to establish MPAs including the cluster of sites in the southwest as well as other sites such as the Barren Islands in the west has been documented and undertaken by project partners. In addition, the northern cluster of MPAs and LMMAs has a

well-documented description of the process for selecting these sites and some also document the integration of climate change adaptation. This information will provide valid lessons.

Output 1.1.2 Report to define LMMA/OECM eligibility criteria to contribute to Aichi Target 11.
The process leading to this output will be closely monitored by the Sydney Promise Steering Committee which will ensure that proposed IUCN Aichi Target 11 eligibility guidelines are strictly applied, albeit within the specific context of Madagascar. The following activities are planned:

- PMU organized workshops to review LMMA/OECM eligibility and conservation role with respect to Aichi Target 11 in Madagascar with comparison to comparable countries.
- PMU organized workshops with LMMA stakeholders to develop criteria to be proposed to Sydney Promise Steering Committee.
- Report developed by PMU specialist for Sydney Promise Steering Committee approval.

Output 1.1.3 Catalogue of eligible LMMAs/OECMs directly contributing to Aichi Target 11 based on Output 1.1.2.
Once the eligibility criteria have been defined under Output 1.1.2, all existing and future LMMAs/OECMs must be evaluated against them to establish the justification for inclusion. They may then be legitimately included in accounting measures to track progress in attaining Aichi Target 11. In addition, those sites with insufficient conservation contributions to the target should also be monitored to track their indirect added conservation value with respect to marine resource and habitat management. The following activities are planned:

- PMU organized workshops with LMMA/OECM promoters to define sites eligible for direct contribution to Aichi Target 11.
- PMU organized workshop to define Aichi Target 11 progress accounting system, taking into account direct and indirect LMMA contributions to target.
- Catalogue developed by specialist consultant under supervision of PMU and MEEF.

Output 1.1.4 Action plan to achieve Aichi Target 11 for the marine environment, identifying partner roles and contributions, and integrating multi-sectoral interests.
Output 1.1.1 will provide a clear scientific basis for the development of the strategy and action plan to attain Madagascar's commitment to Aichi Target 11. This document will be comprehensive, including definitions of those areas that are the highest priority in terms of biodiversity. Secondly, it will help to identify implementing partners[10] (see Outcome 1.2, Outputs 1.2.1 and 1.2.2) and define their respective roles. It will also take into account other known sectoral interests including fisheries, tourism, coastal and offshore extractive industries, and national priorities for coastal infrastructure development. Having a well-defined strategy and action plan will help to mitigate any potential geographical preferences that implementing partners may have in terms of where they invest their efforts. At the present time these tend to cluster in areas where their intrinsic values are already reasonably well known such as the presence of charismatic species, coral richness and extent of larger mangroves blocks. However, it is noted that achieving Madagascar's Aichi Target 11 commitments will require new MPAs and LMMAs in areas of high biodiversity value where there are essentially few or no conservation sites at the present time. These include the northeastern coast, a portion of the northwest coast (Boeny Region) and the most southerly offshore areas in the Androy Region. The latter includes an extensive undersea plateau extending far to the south that supports a rich and unique biodiversity. Finally, it is recognized that the strategy and action plan must be shared with the general public and additional stakeholders such as donors and private investors not included within the Sydney Promise Steering Committee. Special briefing materials will be developed that clearly identify the support provided by the GEF. The action plan will clearly describe how its development has integrated lessons from earlier MPA/LMMA initiatives.

The activities for this output are the following:

[10] It should be recalled that implementing partners are promoters that receive child project contracts and sub-grants to execute specific activities defined in project strategy and action plan.

- Participative workshops organized by the PMU at national and priority intervention area levels to define Aichi Target 11 action plan that also takes into account sites particularly important for Aichi Target 12 – threatened species, drawing upon criteria developed for terrestrial PA expansion in accordance with the 2003 Durban Vision.
- Based on workshop results, PMU working with MEEF to compile an action plan document to be submitted for approval by Sydney Promise Steering Committee under supervision by MEEF.

PMU develops promotional materials and activities to disseminate Madagascar Aichi Target action plan in coordination with MEEF.

Outcome 1.2 Proposals for new MPAs/LMMAs or extension of existing ones, covering and additional >1,000,000 ha submitted to government for gazettement in areas that capture key biodiversity and habitats of threatened species, based on the action plan.

The proven approach of delegating promoters to facilitate and support the creation of new MPAs and LMMAs will be adopted to attain this outcome. There are three main steps in this approach. First, criteria for site selection and defining their promoters must be established. Potential promoters will be invited to submit proposals that will be reviewed by the Sydney Promise Steering Committee for approval. Secondly, sub-grant agreements and contracts will be issued by the PMU to those promoters and projects that have been approved by the steering committee. These will require compliance with regulations in force (see Outcome 2.1) so that all steps in the creation process are completed. Finally, the promoters will submit the creation dossiers to be submitted for gazettement by the MEEF. As in the previous outcome, the proposal and plans for sites must clearly demonstrate that lessons from other initiatives have been integrated.

It may be noted that many coastal communities have mixed economic practices that use both forest and marine resources. In some cases, such as the southwest, the dynamics may be quite fluid and changing conditions may encourage farmers to become temporary fishers and vice versa. In such cases, there may be a need for MPA/LMMA promoters to explore/integrate marine and terrestrial aspects into the approach. In practice this is already happening in some areas such as in the northwest and southwest, and in the Antongil Bay area.

Output 1.2.1. Operational partners and proposed MPA creation/expansion sites selected.

Based on the Aichi Target 11 strategy and action plan, the Sydney Promise Steering Committee will approve priority sites and the implementing partners that will be supported through sub-grants by the child project based upon well-defined criteria. Overall responsibility is with the Sydney Promise Steering Committee but on a more practical level DSAP within MEEF must lead the criteria definition process and site + partner screening and evaluation. The PMU will provide support to define the criteria. Indicative criteria will include biodiversity factors such as habitat/species representation, large seascape/ecosystem representation, proposed sustainable resource management plans and in particular cooperation with SWIOFish2, prior candidate experience, co-financing capacity, documented confirmation that communities and other local stakeholders are committed, and measurable contribution to Aichi Target 11. Additional criteria may include local social and economic aspirations and opportunities. Based on the funding levels that can be committed to these sub-grants, the Sydney Promise Steering Committee may draw up a list of preferred intervention zones from which 3-6 sites will be ultimately selected. The activities under this output are:

- PMU supports DSAP to propose site + promoter selection criteria.
- Sydney Promise Steering Committee approves selection criteria.
- Request for letters of interests from potential operational partners.
- PMU supports DSAP to screen, evaluate and recommend selected site + promoter proposals.
- Selection of site + promoter by Sydney Promise Steering Committee based on DSAP recommendations.

Output 1.2.2 Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement, including: action plan and budget; inventories and safeguards studies; mapping and georeferencing; gender, social and environmental surveys;

governance/management arrangements; land tenure survey; and site delimitation (for full list of required actions see Section 1.2.2).
Once the sites and implementing partners are selected, the PMU will issue contracts to sub-grantees defining roles and requirements regarding MPA/LMMA creation or extension. There exists already a set of standard procedures that must be completed (see Section 1.2.2) to attain firstly temporary legal protection and subsequently full legal gazettement. These may change later based on implementing earlier partner feedback (the procedures are often considered to be too complex and costly, see Outcome 2.1) and the contracts may be amended as needed. The activities under this output are the following:

- PMU to issue contracts to implementing partners integrating action plan and budget for MPA/LMMA creation/extension, local management roles and arrangements as well as collaboration with SWIOFish2 where appropriate.
- DSAP and PMU support full MPA creation/extension process including mapping and georeferencing, social and environmental safeguards, governance/management arrangements, land tenure survey gender dimensions and considerations, and site delimitation.
- DSAP and PMU monitor creation process.

Output 1.2.3 Gazettement proposals submitted by MEEF (from Output 1.2.2) to government for full approval by the Council of Ministers.
The current procedures may require up to five years or more to complete. However, many of the procedural details are well known among implementing partners and the process may be accelerated with respect to earlier endeavors. In addition, the creation procedures may be streamlined to reduce the time and costs involved (see Outcome 2.1). One activity is defined for this output:

- DSAP and PMU to monitor progress based on the COAP with inputs from MRHP.
- PMU technical support for gazettement of new MPAs and LMMAs: SAPM commission validation meetings, jurist to draft decrees, translation of decrees in Malagasy, duplication of draft decrees for review, publication in Official Journal.
- PMU to provide technical input to classify new MPAs and LMMAs based on the COAP,
- Meeting of Madagascar Protected Areas System commissions assisted by environmental lawyer consultant to validate new sites.
- With input from environmental lawyer, DSAP and PMU to produce and translate of all official documents into Malagasy.

COMPONENT 2: BUILDING A ROBUST ENABLING ENVIRONMENT FOR MPAs/ LMMAs

Component 2 addresses the following barriers: **Barrier 3 – Existing regulatory frameworks for MPAs and LMMAs are outdated or inexistent; and MPA** and **Barrier 4 – LMMA contributions to Madagascar's sustainable development are consistently underestimated relative to those of other sectoral developments**. These barriers comprise a range of obstacles including: (i) a need to improve regulatory frameworks governing MPAs, LMMAs and local user rights, and (ii) a persistent perception that other economic development sectors have priority over biodiversity conservation meaning that the role of MPAs/LMMAs in sustainable development is underestimated. As described in Section 1.2.1 some of these issues are or will be addressed by other initiatives, such as network level sustainable financing strategies. The MPA child project will therefore focus its efforts on those areas where it will have maximum positive leverage; (i) updated regulatory framework for MPAs, particularly with respect to streamlining the creation process and improving adaptation to the special conditions; (ii) support ongoing dialogue and exchanges between government and promoters with the aim of defining a clear regulatory framework for LMMAs and strengthened user rights in both LMMAs and MPAs; and (iii) using the results of Outputs 1.1.2 and 1.1.3, strengthen MEEF institutional capacity to convey convincing arguments for MPA/LMMA integration into a national MSP process on an equal footing with other sectoral interests. The latter will involve demonstrating their significant contribution to sustainable development

through preservation of critically important marine renewable resources. In doing so, it will strengthen the ability to defend the importance of these sites with respect to other developmental sectors.

This component focuses its capacity building support on agencies working at policy, legislation and strategy levels, including both governmental and non-governmental entities. In large part, it centers on national institutions, particularly MEEF, but is also pertinent to MRHP regarding LMMAs as well as other ministries involved in managing Madagascar's seas. Part of the capacity strengthening will be achieved through a proposed consultancy to review current PA legislation and to identify gaps with respect to MPA gaps and needs. This information will strengthen comprehension within MEEF and other pertinent ministries with respect to the regulatory needs of MPAs and LMMAs, including an analysis of solutions developed in other parts of the world where similar challenges have been identified. The information developed under Outcome 2.1 will be shared and debated with stakeholders outside of MEEF and this will help increase their awareness. In effect, the beneficiaries include other national ministries, regional and local administrations, MPA/LMMA promoters and local communities. Outcome 2.2 is aimed at MEEF primarily, but will provide valuable information to MRHP regarding the role of MPAs/LMMAs in fisheries management. It will also be useful to other ministries involved in future MSP initiatives as it will improve understanding of the relative values of MPAs/LMMAs in sustainable development based on a blue economy, a stated strategy of the government.

Outcome 2.1 Improved regulatory frameworks to address specific MPA and LMMA needs including streamlined creation procedures, governance and management regimes, user rights and contribution to sustainable development.
MPAs are governed under the robust Protected Areas Code so any improvements regarding barrier 3 must be formulated in the regulatory framework that has been derived from the Code. Within the same conceptual framework, LMMAs face a more significant hurdle insofar as those sites that are not geographically embedded in MPAs have no legal status at all. Further, it is still unclear which high-level government agency will identify the appropriate legal code and define the required regulatory framework.

Another aspect of the regulatory framework to be explored is the contractual arrangement between local communities and private sector to develop/strengthen mutually beneficial value chains. The role of Government in such agreement is not yet clear, it may be limited to setting broad guidelines and perhaps arbitration (the latter at decentralized agency level).

Output 2.1.1 Review of existing regulatory framework including a gap analysis.
Regarding MPAs, one of the main focuses of the review/analysis will be to find a way to streamline the creation process and to recommend improved local stakeholder user rights. The latter will also be addressed in parallel when considering a well adapted LMMA framework as the issues are essentially the same. The current absence of a well-defined overall regulatory framework for LMMAs will be addressed by analyses conducted by competent legal experts. Essentially, the child project will build upon earlier progress in bringing LMMA and MPA community stakeholders together with their partners to lobby for improved user recognition and rights. As such, the proposal put forward by the MIHARI platform will be integrated in this task. The review will include an analysis of frameworks to guide community – private sector partnerships to develop value chains. The aim is to ensure that these partnerships are equitable and that they are a means for sustainable economic development. The definition of best options including the possibility of guidelines rather than legal regulations will be explored through the gap analysis. The activities for attaining this output are as follows:

- PMU to recruit consultant to review existing MPAs/LMMAs to identify progress since the Durban Vision and to evaluate local resource management transfer contracts and resources management.
- Recruit consultants to review existing PA legislation and to identify key MPA gaps and needs, including a comparative review of practices in other relevant countries.
- PMU legal consultant to support DSAP to organize consultations with stakeholders to identify problems in current MPA/LMMA creation/development procedures.
- PMU Coordinator and DSAP to monitor consultancies.

Output 2.1.2 Recommendations and draft regulatory text submitted to appropriate level of government by MEEF.

This output represents the natural follow-on from the previous one. The PMU, DSAP and the consultants contracted for Output 2.1.1 will organize/support workshops and meetings to define recommendations for improved regulatory frameworks addressing the problems described above and present them to the Sydney Promise Steering committee for submission to higher levels of government for approval. The activities for attaining this output are as follows:

- PMU supports DSAP to organize workshops and meetings to develop recommendations and submit them to Sydney Promise Steering Committee for initial review and approval. These workshops will include representatives from relevant government ministries and other stakeholders, and will ensure both support for the draft regulatory text as well as increased capacity and collaboration on this topic.
- Consultant to draft regulatory texts including recommendations.
- Project Steering Committee submission of documents to appropriate level of government for adoption.

Outcome 2.2 Increase MEEF/DSAP capacity to defend and promote MPAs and LMMAs for sustainable development., e.g. incorporation of MPAs/LMMAs in multi-sectoral MSP.

The recent plans to conduct a fully multi-sectorial MSP process integrating biodiversity management constitute a new challenge for MEEF and the additional ministries within the Sydney Promise Steering Committee. It is therefore critical that MEEF in particular acquires the institutional capacity to fully understand how the process will develop as well as to put forward convincing arguments in favor of MPAs and LMMAs in the context of other legitimate sectorial use of Madagascar's seas. The emerging collaboration between M2PATE and WWF should help to facilitate the development of these arguments that must be based on solid data from the site level. Most of the information used to frame the arguments will concern the demonstrated economic benefits to local communities, the strengthened/improved fisheries and ecotourism value chains that are emerging, and the need to establish ecological (blue/green) infrastructures that protect ecosystem good and services underpinning sustainable development based on natural capital.

Output 2.2.1. Assessment of the economic and social benefits of MPAs/LMMAs for justifying their role in MSP and sustainable economic development.

While large-scale support to Madagascar's emerging MSP aspirations is beyond the project's scope and resources, there is a clear and as yet unexploited opportunity to make meaningful contributions with respect to promoting the contributions of MPAs and LMMAs to sustainable economic development. The institutional capacity of MEEF will be best served by a rigorous assessment of the economic and social benefits of MPAs and LMMAs. This will help to strengthen arguments in favor of MPAs and LMMAs with respect to MSP. There has probably never been a more opportune time to promote MPAs and LMMAs within the MSP process, especially given their potential value in terms of blue infrastructures that serve to maintain healthy and productive ecosystem services that underlie economic wealth. The following activities are planned:

- PMU marine ecologist and MPA specialists with expert advice to propose a strategy and action plan for MPA/LMMA integration into marine spatial planning.
- With input from promoters, the above PMU specialists to conduct an assessment of the economic and social benefits of MPAs to support Sydney Promise Steering Committee arguments to integrate MPAs/LMMAs.
- PMU to provide technical support to Sydney Promise Steering Committee to harmonize MPA and SWIOFish2 child projects, with special attention to LMMAs including sites that are fisheries rather than biodiversity conservation oriented.
- MEEF (DSAP) requires PMU to organize workshops with other government agencies to revitalize existing intersectoral commissions and to seek solutions to reduce intersectoral conflict.
- Project Steering Committee to commission study by above PMU specialists to explore intersectoral coexistence mechanisms.

COMPONENT 3: ENHANCING MANAGEMENT EFFECTIVENESS AND CONTRIBUTIONS TO SUSTAINABLE DEVELOPMENT THROUGH MPAs AND LMMAs AT SITE LEVEL

Component 3 addresses the following barriers: **Barrier 5 – A persistent lack of MPA and LMMA effectiveness**, and **Barrier 6 – Innovative local revenue generating mechanisms remain at pilot stage and have not expanded to scale and diversity**.

In contrast to Component 1, this component will be primarily directed towards existing MPAs and LMMAs where there is already at least a moderate level of management capacity as well as existing trials to identify sustainable mechanisms to improve local livelihoods and revenue generation. However, new or extended MPAs created under Component 1 will be expected to draw upon the experiences and lessons learned under Component 3 and integrate them into their sites. Their budgets must cover the costs of sharing experiences and lessons learned.

The management effectiveness targets are diverse. First, there is an opportunity to strengthen and diversify existing approaches that create new economic and social opportunities for the communities that co-manage the sites. This reflects the close linkages between the role of MPAs and LMMAs in maintaining or restoring marine resources and improved local wellbeing through their sustainable management. Secondly, management effectiveness must include adequate infrastructures and equipment. Thirdly, while Madagascar's MPAs and LMMAs have access to a range of management toolkits for planning, monitoring and other essential activities, they are generally poorly adapted to the marine environment and co-management by local communities. MPA/LMMA promoters see the need to remedy this situation as a priority. Finally, there is a useful opportunity to develop sustainable cost recovery mechanisms to finance essential management activities at site level. Given the scope of the child project these will be relatively modest but will constitute a step towards broader sustainability objectives.

By supporting effective management of marine protected areas through Component 3, the project is expected improve local fisheries stocks. SWIOFish2 is focused on fisheries improvement and is expected to have more direct impact on local fishery stock. In addition, other projects including, the German-funded SEEWOH project and the Swedish-supported project on coastal community rights strengthening, will have regular exchanges with the two child projects at both local and national levels. Additional projects with overlapping interests will be encouraged to share information and coordinate activities. These exchanges will be integrated into coordination meetings organized by the PMU as well as regular multi-stakeholder meetings involving all promoters and donors.

Improving marine resource management requires major capacity strengthening at the community level and among the NGOs/CSOs who support them. This is addressed throughout Component 3, especially under Outcome 3.3 through project workshops and trainings on effective management. Component 3 also ensures a systematic and transparent process for equitable agreements between communities and the private sector to improve management of key value chains including shrimp, pelagic fish, crabs and low-impact tourism, based on lessons learned to date. The role of government in regulating such agreements has yet to be fully defined but will be explored under Output 2.1.1.

Outcome 3.1. Expanded options for increased, diversified, and environmentally sustainable revenue sources for improved living conditions of coastal communities.

This outcome will build upon proven approaches that promote community-level integration into strengthened and equitable value chains. Perhaps more significantly, through sub-grants it will encourage implementing partner promoters to go beyond this limited array of options to identify, test and refine new approaches that are well adapted to local conditions. The lessons learned will be shared through regional and national workshops,

using existing options such as the annual MIHARI Platform meeting as well as meetings organized through other projects.

Regarding site-level mechanisms to increase revenues for community members, the MPA child project will build upon existing successful approaches including partnerships between communities and the private sector for improved access to markets and equitable prices. It will also explore new and as yet untried or underdeveloped options that may be identified through the project period. One of the outcomes of improving revenues is strengthened motivation among local stakeholder to support and sustainably manage MPAs and LMMAs. In addition, an aim is to allocate part of the increase to management cost recovery for site activities.

The PMU will ensure that a gender and diversity lens is applied to all outcomes and activities, based on initial assessments and subsequent monitoring programs.

Output 3.1.1. Selection criteria for demonstration sites, eligible activities, and operational partners approved by Project Steering Committee. (Note: Outputs 3.1.1 and 3.1.2 regroup shared activities that contribute to all Component 3 outcomes and their respective outputs. The activities required are placed here in order to avoid repetition with respect to outputs and activities).

As in Output 1.2.1 there is a need to identify sites and promoters to test and promulgate the activities under Component 3. This criteria definition will be led by the PMU marine ecologist and MPA/social specialists working with DSAP in consultation with all interested stakeholders and their local partners. Once criteria have been agreed upon they will be assessed and approved by the Project Steering Committee. An additional preparatory activity will be to consult with promoters and their partners to define priorities in terms of improving local revenues and management effectiveness at site level. The following activities are designed to contribute to all outcomes under Component 3:

- PMU to organize meetings with operational partners and stakeholders to propose criteria.
- Present recommendations for criteria to Project Steering Committee.
- PMU marine ecologist and MPA/Social specialists to consult with promoters to define priorities for increasing local revenues and strengthening management effectiveness.

Output 3.1.2 Sub-grants issued to selected promoters/sites for improved community revenue generation, site level cost recovery for management activities, and for strengthened management effectiveness.

Once criteria have been established and priorities defined, the PMU Coordinator will work with staff to define terms of references for sub-grant allocation. The TORs will be approved by the Project Steering Committee. The PMU Coordinator will issue calls for proposals based in the TORs. Successful applicants will be awarded contracts. The following activities are designed to all Component 3 outcomes and outputs.

- PMU defines implementing partner terms of references for Project Steering Committee approval.
- PMU calls for proposals based on approved TORs among promoters.
- Sub-grants with operational partners in selected sites for eligible activities to generate revenue, develop cost recover mechanisms and increase management effectiveness.

Output 3.1.3 Mechanisms to increase community/other local stakeholder revenues developed through promoter support and private sector partnerships (where appropriate) (subgrant under 3.1.2).

Several communities and their supporting NGO/CSO partners have already developed agreements with private sector partners in fisheries, aquaculture and ecotourism. In a very small number of cases, the agreements also include development donors to finance infrastructure needs and technical training costs. This information will be highlighted in Output 3.1.1 review and will be used here. The following activities are planned:

- With input from SWIOFish2 and other experts including the private sector and regional tourism offices, PMU social specialist to consult MPA/LMMA to assess social and economic development opportunities at local levels.
- Provide workshop training to build entrepreneurial and cooperative management skills among CBOs.
- Sub-grantees to identify potential partnerships between MPA/LMMA communities, private sector and development agencies through exploratory meetings.
- Sub-grantees to broker equitable agreements for development projects based on community, private sector and donor/investor interests to strengthen or create new value chains. Will ensure that these agreements include measures to ensure transparency and equitability.
- Promoters and other partners implement plans to integrate local stakeholder participation in new and/or enhanced value chains development.

Outcome 3.2. Increased revenue to cover operational costs at MPA & LMMAs at site level.

This outcome is specifically intended to address **Barrier 6**: **Innovative local revenue generating mechanisms remain at pilot stage and have not expanded to scale and diversity**. It is intended to draw upon the few cases where a relatively small part of increased local revenues is voluntarily recovered to cover some essential management costs such as patrolling and monitoring. In effect, the money diverted to management activities does not leave the communities, as under co-management agreements, it is members of the same communities who are responsible for such activities and are paid for them. It may be noted that this is a relatively small but significant contribution to MPA/LMMA financial sustainability, recognizing that broader solutions at national scale are beyond the scope of the project.

Output 3.2.1 Agreements with communities brokered to reinvest a percentage of revenues in MPA/LMMA operational costs (subgrant under 3.1.2).

The selected promoters will work with their partner communities and other local stakeholders to assess the feasibility of cost recovery for management activities. If it appears to be feasible, appropriate mechanisms will be explored and refined. As in all actions in the child project, the results will be shared widely.

Experience to date shows that men are generally recruited for essential management activities such as surveillance, although there are sites that involve women. This culturally-based gender issue will be addressed by all operational partners. The following activity is planned:

- Promoters negotiate and test site-level cost recovery mechanisms for management.

Outcome 3.3 Enhanced management effectiveness of selected demonstration MPA and LMMA sites.

This outcome covers the process of working in selected demonstration MPAs/LMMAs, infrastructure and equipment needs, the development of a standardized well-adapted management toolkit, and site-level training. These will address the issues described under **Barrier 5 – A persistent lack of MPA and LMMA effectiveness**. The activities under this outcome will support local community capacity building for the improved local governance of resources and property rights

Output 3.3.1 Essential infrastructure in place based on the site's management plan, including office space, weather stations and outlying observation posts, boundary marking, equipment for patrolling and surveillance including boats and other vehicles (subgrant under 3.1.2).

This output is designed to support management infrastructure development and essential equipment based on the sites management plan, including office space, weather stations and outlying observation posts, boundary marking, equipment for patrolling and surveillance including boats and other vehicles. These infrastructures and equipment contribute directly to management effectiveness and governance of marine resources.

Infrastructure and equipment will be funded and maintained through the project. Post-project maintenance will be supported in part by revenues generated under Output 3.2.1, as well as through continued promoter support.

All members of the community involved in MPA/LMMA development will be consulted to identify local needs. The following activities are planned:

- Physical marking by site-level personnel of MPA/LMMA boundaries (buoys, signage).
- Site personnel define and acquire equipment for patrolling and surveillance (boats, GPS, computers, etc.).
- PMU MPA specialist to develop tenders to build critical infrastructure for MPA/LMMA management as needed.

Output 3.3.2 Standardized MPA/LMMA management toolkits developed and propagated in place.

This output is designed to develop and roll out an approved national package of harmonized, well-adapted, gender sensitive MPA/LMMA management toolkit agreed by government for adoption at site level by management partners (CBOs, NGOs and local government agencies). This will build on existing management toolkits that are recognized as global standards, such as MIRADI planning/monitoring software, or regional standards such as the WIOMSA MPA management kit. These tools will be identified for use as appropriate. In effect, there will be a suite of toolkits as local MPA governance and management structures and practices vary from site to site.

LMMAs that are independent or outside of MPAs will require their own set of toolkits based upon their roles in environmental and marine/coastal resources management. Where effective management tools have not yet been identified or do not exist (such as LMMA monitoring toolkits), the project will draw upon the experiences and tools developed by bodies such as MIHARI and WIOMSA (see baseline). This will help to integrate lessons from initiatives elsewhere in the world.

There is a need to ensure that gender equity is adequately in toolkit design and implementation, particularly as at least one toolkit will be developed to track and promote gender equity and other socio-cultural issues. The following activities are planned:

Toolkits selection, development and adaptation

- Through workshops and consultations, the PMU marine ecologist and MPA specialist identify appropriate management toolkits for potential use at site level, taking into account differences between sites and including gender considerations.
- Operational partners funded by the project test and refine proposed management toolkits.
- Toolkits approved by DSAP.
- Set site-level baselines using METT scores (a requirement for all PAs).
- Support development of a METT equivalent for LMMAs through MIHARI consultancy.
- Finance toolkit operational guidelines in appropriate languages.
- Support annual METT evaluations at site level through local NGO/SCO site-level technical guidance.
- Training for MEEF in MPA/LMMA management effectiveness toolkit use.

Toolkits implementation

- Through implementing partners (see Outcomes 1.2 and 3.1) develop and support standardized protocols for ecological monitoring, fisheries, household revenues, and infrastructures.
- Ecological monitoring training and operational support for MPA/LMMA managers to support capacity for improved local governance of resources.
- Support integration of climate adaptation needs in management plan and implementation of adaptation measures.

- Through consultations, support national SAPM and MIHARI reviews of existing MPA/LMMA toolkits and assess their pertinence to local conditions and capacities, including:
- METT, CAMPA climate change adaptation, WIOMSA MPA toolkit, SMART surveillance and monitoring, ecological monitoring, fisheries monitoring (where collaboration with SWIOFish2 is present), and others.
- Governance effectiveness tools (e.g., F&A, conflict resolution, gender and social equity, negotiation skills, etc.)

Output 3.3.3. Training program to support and replicate management effectiveness measures established and operational.

Once the standard management toolkits are developed at demonstration sites, they must be disseminated to individual sites. Site managers must then be trained in their use. The PMU will consult with MPA/LMMA promoters to develop an agreed-upon training program that progressively covers all sites. The initial training efforts will focus on those sites selected under Outcome 1.2 and selected sites in Component 3 but resources will be made available for additional sites based on clear proposals that build upon the original demonstration site focus. This is a critical need as Madagascar has a record of projects focusing on demonstration sites with little promulgation beyond their limits. Feedback from training sites will be used to improve the management toolkit and to ensure that training is well coordinated. The activities are:

- In consultation with operational partners, PMU marine ecologist and MPA specialist identify local training needs and priorities through on-site assessments and workshops, paying special attention to equitable gender and broader stakeholder access.
- Drawing upon expertise gained at selected intervention sites, train NGOs/CSOs as trainers to support government
- Coordinated training program developed by PMU marine ecologist and MPA specialist.
- PMU marine ecologist and MPA specialist facilitate training program through workshops and on-site support through operational partners noted above.
- Through hands-on support and exchange visits PMU provides training to ensure that performance and scientific data methodology are adapted to local capacity, integrated for adaptive management and fed into a national database for monitoring of conservation impacts and Results Framework Indicators.
- Workshops and site exchange visits to share lessons learned about successful revenue generating approaches, acceptable revenue-generating technologies and practices through materials acquisition and on-site training.
- International exchange visits and conferences to share lessons learned.
- PMU Coordinator to hire consultants thoroughly evaluate management effectiveness measures and their impacts.
- DSAP to monitor consultants and their results.

COMPONENT 4: KNOWLEDGE MANAGEMENT, MONITORING AND EVALUATION

Component 4 is an essential requirement of the GEF, the GEF agency and the government of Madagascar for long-term project success. This component will leverage existing GEF, WWF, and government best practices to ensure that knowledge is shared, results are analysed and available to all interested partners, and lessons learned are used for adaptive management purposes. The project will also be working closely with the SWIOFish project to ensure mutual knowledge is managed and disseminated appropriately.

Outcome 4.1 M&E plan finalized with on-time data collection, reflection and reporting to inform adaptive management and ensure delivery of project results.

This outcome ensures that an appropriate knowledge management, monitoring and evaluation plan is defined and accepted by stakeholders and subsequently implemented.

Output 4.1.1. M&E system established, with roles and methods defined,
The PMU M&E officer will convene promoters to define the plan' parameters and contents. The specialist will then organize training for field staff in data collection and information processing. These activities will integrate gender and diversity lenses throughout the process. Planned activities are:

- PMU M&E officer consults with stakeholders to define plan.
- PMU M&E officer trains field staff on data collection methods and responsibilities.

Output 4.1.2. Implementation of the Project M&E Plan and subsequent review of project management approaches and strategies.
The M&E officer will undertake or organize monitoring visits as appropriate to collect data. These will be analysed with respect to project indicators. As the data are organized and analysed, the PMU will organize workshops with stakeholders to have inputs and reviews, using this process to refine the theory of change and project actions as required. Recommendation for adaptive management will then be submitted to the Sydney Promise Steering Committee for approval. Activities are as follows:

- M&E officer undergoes monitoring visits at site level as appropriate.
- Indicators monitored by M&E officer regularly at all levels.
- Reflection workshop held by PMU to review inputs and feedback from M&E plan, to revise theory of change and propose changes to work plans and strategies.
- Appropriate adaptive management recommendations by PMU submitted to and approved by PSC.

Outcome 4.2. M&E data, lessons learned, and best practices are transparent, participatory and shared with relevant stakeholders to contribute to knowledge management.
This outcome ensures that best practices and lessons are identified from analysis of the M&E data. The process will be led by the PMU's M&E officer and submitted to other project staff and the project steering committees for review and comments. The results will be shared with all project stakeholders and partners (e.g., SWIOFish2) as well as regional forums such as the Northern Mozambique Channel initiative and ASCLME family of projects. The PMU will also ensure timely completion of all reports and make them widely available.

Output 4.2.1. Compilation of Best Practices and Lessons distributed to relevant local, national and regional bodies for review and replication as required.
The PMU will ensure that all best practices and learning are captured and widely shared. The MEEF will share the information with partners at local, national, regional and international levels. Activities include:

- Specific BP&Ls captured by M&E officer and reviewed by PMU.
- Briefing Reports on BP&Ls submitted by PMU to Project Steering Committees for consideration.
- BP&L Report(s) circulated by PMU to appropriate bodies for use and dissemination (IW:LEARN/GEF; Nairobi Convention Secretariat, Coordination Bureau Fisheries Environment).
- PMU M&E officer presents selected BP&L at appropriate international fora (e.g. Annual Consultative Meeting on Large Marine Ecosystems and Coastal Partners, World Parks Congress, etc.).

Output 4.2.2. Collected and analysed data (including progress reports and results frameworks) shared with relevant stakeholders.
The PMU will ensure that all reports and other relevant documents are shared with all stakeholders and made available to other interested partners. Activities include:

- PMU Completes Progress reports,
- PMU Disseminates annual progress reports to relevant stakeholders.
- PMU shares project documents with external evaluators.
- PMU shares external evaluation reports with OFPs, etc.

Output 4.2.3. Communications plan developed and implemented.
The PMU communications specialist will develop and oversee a project specific communications strategy using reports and other information from partners. Activities include:

- PMU specialist establishes communication plan with input from DSAP.
- Two e-newsletters per year sent to all interested parties.
- PMU communications specialist supports promoter partners organize regional/local meetings to update stakeholders on project activities and results (can be associated with other project meetings).
- Annual national meeting to update stakeholders, press and decision makers on project progress.
- DSAP presents project progress and lessons at appropriate regional/international fora.

2.5 GLOBAL ENVIRONMENTAL BENEFITS

Globally, Madagascar's coastal and marine ecosystems are among the most diverse on the planet. The program and MPA child project in particular, will help to maintain this natural heritage and maintain or restore its productivity. The program as a whole will contribute to the restoration and maintenance of the health of the Agulhas and Somali ecosystems, which in turn support the livelihoods and wellbeing of more than 60 million coastal people. The program and the MPA project will systematically integrate ecological, social and economic measures into MPA and LMMA management in Madagascar. Global environmental change is expected to have a particularly significant impact on the ecosystems of the Mozambique Channel region, including Madagascar. In addition, the MPA child project will contribute to the conservation of the biologically rich and productive submarine plateau extending to the south of Madagascar, a high energy ecotone between the marine faunas of southern Africa and the Indian Ocean biotas, and marked by a high degree of endemism and productivity.

The MPA Child Project will deliver global environmental benefits through the protection of habitat for species of global importance and by the creation of a network of MPAs that will increase the representativeness of marine ecosystems in Madagascar's network of protected areas. The project will contribute to the establishment of a global system of MPA networks as specified by the CBD and in the decisions adopted by the COP in its ninth meeting (COP 9) as well as the global Aichi Targets (particularly target 11) and the Sydney Promise. As noted earlier, the seas around Madagascar are particularly rich in coral diversity, mangroves, and globally rare or threatened species including cetaceans, seabirds, turtles and fish. Madagascar's coastal habitats are also essential for several globally threated species. The overall global importance of these waters is clearly recognized by both international bodies including WHS, CBD and IUCN and regional entities including IOC and the Nairobi Convention.

Additional global benefits will include conservation and fisheries management at a regional scale, sustainable use of marine and coastal resources, and improved climate change adaptation. Together both child projects will contribute to the IW Focal Area by helping to sustain coastal and marine ecosystems goods and services, globally significant biodiversity, together with carbon sequestration within natural habitats. In addition, both child projects aim to create a more equitable economic environment that strengthens the user rights of coastal communities and other local stakeholders.

By contributing to strengthened marine and coastal biodiversity conservation while also promoting sustainable resource management approaches that provide benefits to local communities, the MPA child project will maximize the long-term delivery of environmental benefits including biodiversity maintenance/restoration, healthy ecosystem services and protection of coastal environments.

The project's specific global environment benefits are presented in Table 3 and reflect stakeholder consultations for maintenance of globally significant biodiversity and the ecosystem goods and services that it provides to society, through the improved management of seascapes.

Table 3 Replenishment targets and indicative program targets (updated from the program PFD)

Corporate Results	Replenishment Targets	Indicative Program Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*2,000,000 hectares*

2.6 INCREMENTAL COST REASONING

As the principal initiative aimed at ensuring implementation of Madagascar's Sydney Promise, making significant progress towards Aichi Target 11, the MPA child project adds significant incremental value to ongoing global efforts for the conservation and sustainable use of the country's marine and coastal biodiversity through expanded and more effective MPA and LMMA networks.

The project objective is closely aligned with the national commitments to Aichi Target 11, notably the expansion of the country's existing MPA and LMMA under a more favorable and well-adapted enabling environment, and through more rigorous and robust governance and management systems. In doing so, it builds upon existing efforts to represent, conserve and sustainably manage the highest priority biodiversity and productive areas in Madagascar's waters. By extension, it will therefore by a significant contribution to maintaining or restoring a globally important and highly productive biodiversity hotspot.

In the baseline scenario, the available financial resources (government budgetary allocations, grants and other external funds) together with existing technical and institutional capacities are unlikely to be sufficient to enable attainment of Madagascar's Aichi Target 11 commitments in terms of MPA coverage and management effectiveness. This would mean that the effective protection of biodiversity of global importance will not be ensured in the face of threats and barriers described in Sections 1.5.2 and 1.5.3. There would be some significant achievements, however, as government and MPA promoters work together to allocate resources and build capacity to develop consensus on how best to move the Sydney Promise forward, but at a significantly slower pace. Certainly, the existing MPAs and LMMAs would continue to protect local biodiversity-rich areas and increase capacity while a small number of new initiatives will lead to expanded networks, but not at the scale projected under the GEF alternative scenario. Additionally, the importance of MPAs/LMMAs within the context of a blue economy will be increasingly appreciated, but their ability to compete with other legitimate uses of the sea that are traditionally viewed as powerful drivers of economic development will be limited.

In the alternative scenario, building on earlier GEF projects will enable the MEEF to leverage additional support from donors and implementing partners through a well-defined Sydney Promise strategy and action plan. The strategic direction provided by this plan will address the barriers to successful implementation of Madagascar's Aichi Target 11 commitments by mobilizing technical, institutional and financial resources towards this objective.

Table 4 summarizes the situation at the baseline (business-as-usual scenario), the alternative scenario that the project will provide, as well as the global environmental benefits that will accrue through project interventions.

Table 4 Summary of the baseline and alternative scenarios together with expected additional global benefits derived from the project

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
Barrier 1. Limited available resources constrain the number of MPAs/LMMAs that can be created or extended to ensure network expansion	• The Sydney Promise Steering Committee will meet irregularly with consequent limited opportunities to debate inter-sectoral differences or to fund specific actions that would enhance exchanges and cooperation. • Development of the Sydney Promise Strategy and Action Plan will be relatively slow because of a lack of a specific resources made available for the planning process. However, it is possible that the UNDP BIOFIN project may provide resources in the future but at present this is unknown. • Network expansion will be constrained by funding availability. While there are funds available for MPAs and LMMAs, they are allocated to specific livelihoods and management effectiveness target, the estimated increase conservation coverage that is eligible for national accounting under Aichi Target 11 is an additional 5-600,000 ha if non-GEF funds can be secured. • There is no possibility of Madagascar fulfilling its Aichi Target 11 commitment unless the UNDP BIOFIN project allocates a significant funding support program for this specific purpose. • While the existing somewhat loose coordination and cooperation between NGOs supporting MPA/LMMA development will continue, there will be a persistent tendency to focus heavily on their	• The Sydney Promise process will have the required resources to bring together the different stakeholders involved, especially government agencies The Committee will have the resources for regular meetings and exchanges and thus facilitate intersectoral negotiations and agreements. is particular significant as the government widely different marine development agendas; obtaining broad-based agreement on MPA/LMMA network expansion will be a first in Madagascar and help to mitigate future inter-sectoral conflicts of interests that could threaten MPAs/LMMAs. • At least an additional million ha of eligible MPAs and LMMAs will complete the gazettement process, thereby more than doubling the area under coverage. There will be additional sites that will be in different stages along the gazettement process and can be accounted within the final child project results. • The national Aichi Target 11 commitments will be well on the way to being met directly through the MPA child project while additional investment commitments to network expansion are likely to be catalyzed by this result. • The MPA child project will provide mechanisms and catalytic support that will encourage cooperation between agencies involved in establishing and developing effective MPAs. In particular, inter-site planning and cooperation at the seascape level will be facilitated, leading to Madagascar's first large-scale multi-ecosystem	• There will be a firm inter-sectoral agreement on clear, science-based plans for MPA/LMMA network expansion that will provide significantly improved site-based ecosystem and threatened species in a globally recognized marine biodiversity hotspot. • All major marine and coastal ecosystems will be represented by MPAs and LMMAs eligible to contribute to Aichi Target 11. For the first time, Madagascar's biodiversity protection will extend beyond the most immediate inshore measures although it is probable that they will be confined to the continental shelf. • The GEF MPA child project will be the first to support the development of seascape-level representation and protection of marine biodiversity. This will be achieved through cooperation between agencies supporting MPA/LMMA creation and development within the same geographical

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
	respective sites, thus hampering or even preventing seascape-level biodiversity conservation which may be expected have cumulative benefits in terms of ensuring long-term ecological resilience and sustainability. • Key decision-makers and the Malagasy public will be able to access information regarding the Sydney Promise and its importance to national development through periodic press reporting, largely from individual NGOs involved in MPA/LMMA creation and development.	MPA networking. This will strengthen MPA resilience and will be able to better respond to the special needs of migratory species and important geophysical attributes such as gyres impacting large areas of Madagascar's offshore environments. • The MPA child project will regularly provide information to key decision-makers and the Malagasy public through different communications mechanisms including the national media and regional/local information exchanges.	area. Seascape-level conservation is desirable as Madagascar's waters are marked by complex current systems that are known to vary seasonally and possible on other as yet unknown cycles. This system is dominated in the Mozambique by complex gyres that create upwellings and other important marine phenomena such as ecosystem connectivity. • Madagascar, especially in the north, is at the heart of the ASCLME, long supported by the GEF. This is marked for example, by the exceptional coral diversity found in northern Madagascar where the large marine ecosystem begins. The LME flows along Africa's eastern coast where the human population exceeds 60 million and where there is a strong dependence on marine resources for livelihoods, wellbeing and economic growth through fisheries, aquaculture and tourism among other activities. It may anticipate that improved marine biodiversity protection in Madagascar could have downstream benefits for the LME.
Barrier 2. LMMA/OECM eligibility with respect to direct contribution to Aichi Target 11 is not defined	• The eligibility of OECMs/LMMAs regarding their contribution to Aichi Target 11 is likely to remain unresolved for some time, delaying the accounting process to determine the extent of the commitment's progress, • Setting eligibility criteria for Aichi Target 11 direct contributions may be difficult owing to a lack of resources for expert inputs. • Defining an appropriate accounting system to calculate the contribution of LMMA/OECM sites that do not have an indisputable biodiversity objective (e.g., a site aimed entirely at fisheries management) may be difficult due to limited expert inputs. • Proposals for LMMA/OECM accounting under Aichi Target 11 may be rejected by IUCN/CBD.	• The child project will underwrite a targeted expert study on LMMA eligibility regarding Aichi Target 11. It will support also stakeholder efforts to define eligibility and thus strengthen the credibility of national accounting systems that demonstrate progress towards the target.	
Barrier 3. Existing regulatory frameworks for MPAs and LMMAs are outdated or	• The Sydney Promise Steering Committee will have relatively limited information to bring about regulatory improvements, as international expert advice will be limited. In consequence, arguments required to convince high-level government decision-	• There will be a concerted and coordinated movement involving all stakeholders to bring about required changes to the regulatory frameworks. Inputs from all stakeholders will be integrated in recommended improvements. Expert advice from other countries facing similar	

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
inexistent	makers will be moderately persuasive but perhaps with less impact. • Efforts to lobby government for strengthened regulatory frameworks may be relative slow owing to a lack of resources. • Improvements to the existing regulatory frameworks governing MPAs and LMMAs are likely to be insufficiently comprehensive. MIHARI will legitimately focus on local user rights but the broader changes needed to adapt the current forest-orientated framework may not be attained or unnecessarily delayed.	challenges will also be integrated. • Arguments supporting recommended improvements to the legal frameworks will be enriched through stakeholder inputs together with international expert advice, both based on experience. Their potential influence on key decision-makers is therefore likely to be strong and coherent. • The child project will support the MIHARI Platform strategic plan regarding a coherent regulatory framework for LMMAs. This will include local ownership and user rights.	
Barrier 4. MPA and LMMA contributions to Madagascar's sustainable development are consistently underestimated relative to those of other sectoral developments	• Arguments in favor of mainstreaming MPAs/LMMAs in a national MSP process will advance as resources from organizations such as CEPF will continue through continued project support. However, there is likely to be few resources for multi-sectoral – particularly marine conservation – MSP coordination through the Sydney Promise Steering Committee and/or other MSP processes that may emerge. • Efforts will continue to promote MPA/LMMA mainstreaming in national MSP processes but will have limited coordination and risk being less effective than desired in the face of other economic sectors such as oil and gas, coastal infrastructure development and industrial fisheries.	• While the MPA child project will not support additional research, inventory and analysis that would strengthen the arguments in favor of mainstreaming MPAs/LMMAs in MSP, it will support efforts to demonstrate the values of MPAs and LMMAs in a multi-sectoral sustainable development strategy and action plan using MSP as a tool to integrate all sectoral interests. • Strong arguments supporting MPA/LMMA mainstreaming in MSP will be clearly defined and will help to ensure that their contributions will be well understood, thus reducing risks of being overwhelmed by other sectoral interests. This will be attained by MPA child support for expert advice and Sydney Promise Steering Committee coordination.	
Barrier 6. Innovative local revenue generating mechanisms remain at pilot stage and have not expanded to scale	• Several MPAs and LMMAs are exploring approaches that increase revenues within communities through activities including improved fisheries, ecotourism and improved market access (see Barrier 3). However, the potential opportunities to channel at least part of the revenues to site	• The MPA child project will provide sub-grants for supporting NGOs and the community partners to test, develop and promulgate new approaches aimed at channeling at least part of the revenues gained through enterprise towards site management. This endeavor must of course be voluntary and approved by the communities	

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
and diversity	management have will at best remain limited with little incentive to test new approaches acceptable to community managers. In addition, sharing experiences will be limited as most NGO promoters will not have the resources to organize information sharing at scale. • Significant progress regarding improved revenues and livelihoods at several sites will continue, and these sites will clearly link this to the existence of the MPA/LMMA. However, the potential opportunities are likely to continue to center on proven revenue generating activities that have emerged over the last decade or so. These involve seasonal or permanent fisheries reserves to improve the quality of octopus harvest, sea cucumber aquaculture, algaculture and limited ecotourism ventures. All of these involve private sector participation but there is still little investment in other potential but as yet untried opportunities. This situation may be expected to change positively but in a limited fashion because of the risks such as lost investment capital and project failure that would reduce community and private sector interest. • The number of equitable community-private sector agreements will continue to increase, albeit slowly. The value chains are likely to be relative undiversified, and the majority of private sector partners will probably comprise foreign companies who have more flexible investment opportunities. • Few NGO supporters will have the resources to ensure that effective ecological monitoring will be established to evaluate	themselves. In this scenario the communities would be acknowledging the additional benefits generated by MPAs and LMMAs though their willingness to support them financially. The revenue offtake for management would largely be recycled into paying salaries or stipends for management activities: the exception would be equipment costs. This initiative will be the first to experiment with systematic partial funding of site management costa and can be replicated elsewhere in the emerging national and WIO networks. • The MPA child project will provide opportunities through sub-grants to support promising proposals for improved revenue generation within communities. Care will be taken to ensure gender and diversity sensitivity and equitability where third party stakeholders including the private sector. Particular attention will be given to exploring potential mechanisms in different marine and coastal environments, including those that have yet to show positive results. One successful approaches have been demonstrated to be workable, the results will be shared through reports, workshops and site exchanges. In addition, other donors including Sida and Norad, the German and French governments and potentially USAID will be lobbied to promote successful approaches in their geographical areas of intervention. • New equitable community-private sector partnerships will be explored and developed through both child projects where the two have overlapping intervention zones. Malagasy investors will be actively identified and encouraged to take part. The number of agreements as well as the diversity of value chains is expected to increase significantly.	

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
	trends in biodiversity health or the state of exploited natural resources.	• Sub-grantees will be required to ensure that effective biodiversity and natural resource monitoring systems are integrated into management. This will help to ensure the potential negative impacts of approaches designed to increase community revenues are identified and addressed. The SWIOFish2 child project will contribute to this process.	
Barrier 5. A persistent lack of MPA and LMMA effectiveness	• The MEEF has already designated a suite of management toolkits for all PAs. However, many of these are adapted to forest conservation and are often difficult to adapt to MPAs and as a result often ignored by site managers. In addition, there are toolkits that have been developed specifically for MPAs, even adapted to MPA needs in the WIO but these are seldom adopted and/or adapted. It may be expected that progress towards developing well-adapted MPA management tools, especially for community managers, will be slow owing to a lack of resources to bring key practitioners to the table in order to select and adapt the most appropriate MPA management tools. • The MIHARI Platform has identified a series of common objectives to measure LMMA success. These will help to provide common standards for LMMA management effectiveness. However, there is no standard toolkit adapted to the challenges of LMMAs ant it is likely to be a slow process to develop one that is both effective and readily adopted by community management groups. It is not certain that the MIHARI Platform will have the resources to bring together practitioners to resolve this challenge, and the process is likely to be	• The MPA child project will support the Sydney Promise Steering Committee to develop a consultative process to select and adapt toolkits for MPAs using models that exist already and, where necessary engaging experts to develop additional measures. These will be promulgated through sub-grants provided to increase MPA management effectiveness. Where possible, toolkit components will be adapted to LMMA needs. • The MPA child project will support the MIHARI Platform Strategic Action Plan objectives to develop specific toolkits that are well adapted to LMMAs. • As standard gender and diversity sensitive toolkits are developed and approved, site-level training will be provided to facilitate systematic adoption at site level together with visits to evaluate their use. • Training in general management practices such as administrative and financial management procedures will be provided to sub-grantees. These procedures differ between NGOs/CSOs supporting MPA/LMMA and therefore flexible as long as they meet certain standards defined by the MPA child project PMU (maintaining GEF and WWF standards) and the MEEF (government standards). • The results of this process are expected to	

Barriers	Baseline (business as usual)	Alternative scenario (with GEF project)	Additional global benefits
	very slow. • The number of MPAs and LMMAs that have established free prior informed consent agreements to allocate a proportion of increased revenues for management activities will remain very limited as most promoters will continue to focus only on increasing local incomes for community members.	improve management effective across the MPA and LMMA networks thereby improving biodiversity conservation and promoting sustainable marine and coastal resource use. • Free prior informed consent agreements to allocate a proportion of increased revenues for management activities will increase within the network as the child project promotes appropriate strategies to attain this objective. Funds raised in this way will be allocated to activities including surveillance, ecological monitoring, and new investments in sustainable development. In this way the funds stay within the communities and will help to pay local salaries and costs.	

2.7 RISK ANALYSIS AND RISK MANAGEMENT MEASURES

Risks	Risk Rating	Mitigation Measures	Notes
Political instability. Government takeover or public unrest.	**H**	The environment and fisheries ministries have been able to maintain their basic activities during recurring political crises as technical personnel generally do not change. The recent closure of SEMer is already being discussed internally within MEEF in consultation with WWF-Madagascar. In order to minimize the impacts of such political events, MEEF and WWF will lobby to retain the respective roles of the project's management/ governance structures (Sydney Promise Steering Committee, Project Steering Committee, PMU and partners) as well as its goal and objectives. Partnerships with NGOs and other partners have helped to ensure that MPA and local fisheries management initiatives continued at site level and the lessons learned will be applied if the risk reappears in the future. The PMU will therefore monitor events on the ground should unrest or local political changes occur, and support efforts to maintain implementation progress/continuity. All sub-grantees will be required to maintain regular communications with the PMU and analyze responses to political unrest.	Risk is considered High in view of the relative frequency of crises occurring. However, given that earlier crises have had some direct serious impacts on conservation, key stakeholders in government and the broader conservation community have successfully developed measures to limit these impacts. In addition, the child project is multi-government agency and has diverse implementing partners, helping to diffuse serious negative impacts.
Government reorganization	**H**	Although government reorganization is relatively frequent, the recent government reorganization (June 2018) is being addressed by MEEF in order to assume SEMer responsibilities into MEEF or MRHP. This is not expected to impede project implementation.	Original roles assigned to SEMer are likely to be assumed by MEEF/DSAP and MRHP. Regarding MPAs/LMMAs within the framework of multi-sectoral MSP, all government ministries involved in this process are members of the Sydney Promise Steering Committee, thus facilitating coordination. The committee provides a forum for dialogue and formal meeting agreements.

Risks	Risk Rating	Mitigation Measures	Notes
Policy and legislation enactment. Regulatory frameworks for PAs and fisheries must be developed together with broad policy and strategies guiding ocean governance.	**M**	The need for key MPA regulatory frameworks is recognized. LMMA legislation is also required by the NDP but the responsible agency is still not clearly identified. Government recognizes that its commitments to Aichi Target 11 require these actions and therefore they are likely to occur. The streamlining of MPA creation procedures and more flexible approaches to link biodiversity conservation and sustainable resource use for economic purposes are not expected to be major challenges. However, based on previous experience suggests that strengthened ownership and management rights may be more difficult to advance. The PMU, with support from WWF, will organize lobbying efforts involving a number of organizations interested in regulatory reform (and working in a range of programs) to encourage and support government efforts to bring about desired reforms. The same will be applied where multiple government agencies and issues are linked, such as LMMAs and MPAs overlapping geographically.	The Sydney Promise Steering Committee regroups all government agencies involved in marine development and conservation policy, as well as marine spatial planning. This platform should help to prevent significant departure from Madagascar Aichi Target 11 commitments. The child project has a main Component dealing with building a robust enabling environment for effective MPAs. Furthermore, Outcome 2.1 will thus aim to revise the existing forest-orientated regulatory frameworks for PAs so that they are adapted to the specific conditions in MPAs. A specific legal framework for LMMAs is as yet non-existent but there are on-going discussions between government and promoters to resolve this issue. It is a requirement of the Sydney Promise and therefore must be carried out to meet international commitments.
Weak or absent enforcement of MPA and fisheries regulations. Local enforcement agencies may lack the means to visit problem areas. Migrant fishers or industrial fishers may be unaware of MPAs or deliberately exploit them because of low risks of detection.	**M**	The SWIOFish2 child project will strengthen surveillance and control with respect to illegal large-scale fisheries. Locally communities and other stakeholders have some authority to defend their own MPA and LMMA interests with support from the environment and fisheries ministries. Since the PFD was written, there have been reports of industrial fishing boats illegally entering MPAs and LMMAs. The MIHARI Platform is vociferously calling for appropriate government action. The site-based management bodies have progressively increased their capacity to confront illegal acts such as these and they are widely reported in the national press.	Component 3 addresses local capacity weakness and will provide materials, toolkits and training that will contribute to the empowerment of local management bodies to conduct more effective patrols and surveillance. It is recognized that physical boundary marking (signal buoys and signage) of MPAs and LMMAs is costly. Risk of losses due to natural causes (cyclones and storms) or theft are high. The project will therefore seek alternative effective alternatives such as updating marine charts to indicate protected sites.
Weak inter-agency or government cooperation		The Sydney Promise Steering Committee provides a favorable mechanism to foster	The closure of SEMer is likely to be addressed largely by MEEF and MRHP

Risks	Risk Rating	Mitigation Measures	Notes
leads to a lack of coordination on MPA and LMMA development and later integration into MSP.	**M**	inter-agency cooperation. The proposed platform to develop a national MSP process is likely to be similar. These bodies have regular public meeting that may be encouraged and supported through financial and technical support to work together towards common goals. The MPA child project will add strengthened MEEF capacity to advocate in favor of MPAs and LMMAs. The best solution is to have regular planning and coordination meeting through project implementation. Additional donors will be investing in marine resource management and it will be critical to share information and coordinate activities.	assumption of some of its key roles. Regarding MSP, M2PATE may take the lead.
Lack of clear responsibility regarding LMMA legal status and regulatory framework is a risk to ensuring timely creation of MPAs and LMMAs, as well as strengthening local user rights.	M	This issue has persisted and the closure of SEMer highlights the need to address the problem. The project will be addressing it under Component 2 and will thus be one of the main approaches to finding a solution.	All LMMAs that are embedded within MPAs are covered by the COAP and its regulatory frameworks. It is those that are not within MPA limits that are the most vulnerable.
MPA/LMMA promoter capacity and resources prevent or hinder investments in new or extended sites, limiting the number of subgrantee applicants to the project and overall achievement of the Sydney Promise	M	The MPA child project will directly support promoter capacity to invest in new or extended MPA/LMMA. It will also give them a clear framework for doing so through the proposed Aichi Target 11 strategy and action plan. It will also help them leverage additional resources from other sources.	In principle, several promoters are willing to create or expand MPAs, especially if the child project is implemented.
Low or negative private sector involvement. In some cases, local seafood companies may be reluctant to adjust prices or may reject small-scale fisheries products for quality reasons. In other cases, the number of seafood	**M**	Several seafood companies are already working with communities, government agencies and environmental NGOs towards sustainable fisheries management. This trend will be strengthened through the project. New seafood traders present a higher risk and they must be carefully monitored and brought into a dialogue	Since PFD approval there have been positive indications. For example, one of the country's traders in marine resources, COPAFRITO, has worked with coastal communities and their partner NGOs to strengthen management capacity at local levels. Productivity and local incomes have increased and the company considers these partnership approaches to be

Risks	Risk Rating	Mitigation Measures	Notes
traders is growing, increasing pressures on stocks. Some may pressure communities into overfishing or destructive practices.		with government agencies in the regions where they operate.	valuable. Outcome 2.4 aims to adopt equitable partnerships between local resource managers and private sector buyers Outcome 3.4 on sustainable funding strategies will look at cost-benefits to demonstrate potential advantages of involvement by private sector
Threat displacement. Effective protection of MPAs and associated LMMAs intensify threat levels in other areas that are also important for biodiversity and fisheries.	**S**	The SWIOFish2 child project is best placed to deal with threats from overfishing. However, destructive mangrove exploitation is the responsibility of the MEEF and it will therefore catalyze appropriate action by appropriate departments. The communities involved in MPA and LMMA are strengthening capacity to manage local threats without causing displacement (see notes column).	Marine spatial planning initiatives are likely to address this risk in part. The Child Project will generate best lessons and practices and the economic assessments and cost-benefit analyses under Component 2. It is encouraging to note that community groups co-managing MPAs and LMMAs are increasingly developing measures aimed at reducing local threat levels through zoning and negotiated agreements with migrant fishers, for example.
Climate change impacts may impact MPAs and LMMAs, including local livelihoods.	**S**	The lead government agencies will actively promote climate change impact assessments and promote adaptation measures. Models for this approach have been specifically developed for MPAs and LMMAs, including fisheries adaptation measures and critical habitat actions. Sub grantees will include these measures in their proposals.	Outcome 1.5 is focused specifically on the systematic integration of climate change adaptation into MPA and LMMA management. Climate change adaptation measures will be identified and included in all standard MPA and LMMA management plans and practices.

2.8 CONSISTENCY WITH NATIONAL PLANS OR PRIORITIES

The child project is consistent with Government of Madagascar commitments and strategies for conservation of biodiversity, at both the national and international level. Regarding the CBD, the project is designed to catalyze implementation of Aichi Target 11 but also contributes to the achievement of several additional Aichi target. It is worth analyzing the details of Aichi Target 11, followed by a summary review of how the child project contributes to it:

Target 11. By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of

protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape.

Component 1 of the child project is the principal means to increase MPA coverage to meet the target's area goal. It also addresses the need to ensure that areas important for biodiversity and ecosystem services are targeted through a formal recognition of Madagascar's KBAs and support to encourage ecosystem- or seascape scale approaches through large MPAs or inter-site cooperation. Components 1 and 2 address the value of integrating OECMs into Madagascar's Aichi Target 11 commitment. Component 2 also aims to improve the enabling conditions for MPAs and OECMs through improved regulatory environments and a fuller integration into national development planning based on sustainable use of natural capital. Component 3 is the main mechanism to strengthen management effectiveness and to promote social and gender equity regarding roles, responsibilities and benefits.

To recapitulate, Madagascar has committed to triple the areas of its marine estate with full legal protection status by 2025, and the child project commits to doubling the protected area coverage to attain at an area of at least 2.1 million ha.

By supporting the expansion and consolidation of the country's MPA and LMMA networks, the project under the auspices of Aichi Target 11, the project will contribute to the following additional targets:

- Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably. (*Project Outcomes 1.1 and 3.1*).
    - To date, the emergence of LMMAs and the marked shift in MPA co-management involving local stakeholders has increased awareness of the value of these areas and their importance to sustainable development based on rational use of marine and coastal resources.
- Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems. (*Outcome 2.2*).
    - This is most evident in that biodiversity values have been strongly integrated into the NDP and its implementation plan. It is also being integrated into the NBSAP, region-level land use and development plans, and the still nascent coastal zoning initiatives.
- Target 5: By 2020, the rate of loss of all-natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. (*All project components*).
    - Through increased awareness and improved capacity to effectively manage MPAs and LMMAs, the trend in well-established sites towards reduced degradation is expected to increase. (*Outputs 1.2, 3.1, 3.2. 3.3*).
- Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning. (*Outputs 1.2 and 3.3*).
    - Through supporting Aichi Target 11, project will directly contribute to this additional target and through increased awareness and management effectiveness.
- Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained. (*Outputs 1.1, 1.2, 3.3*).
    - While conservation measured tailored to selected species conservation targets, the main contribution of the child project will be to reduce threats and to strengthen protection of key ecosystems and habitats.
- Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable. (*Outputs 1.2, 3.1,*

3.3).

- The project pays close attention to promoting the rights and aspiration of local community stakeholders together with their livelihoods. In particular, it focuses on integrating local knowledge, strengthening user rights and diversifying economic development opportunities. It also pays special attention to gender and vulnerability issues. By extension, the project also contributes to Target 18.

Besides Madagascar's international commitments, the child project will focus efforts on improving the existing regulatory framework for MPAs in line with government policy related to the Sydney Promise. It will therefore create a more favorable environment for MPAs involving streamlined creation procedures and strengthened user rights. Equally it will support on-going negotiations between government and promoters to define an appropriate legal framework for LMMAs and the rights and responsibilities of those involved in their governance and management. In a broader political framework, the child project will contribute to the integration of MPAs and LMMAs into multi-sectorial MSP as a process leading towards policies and strategies framing a blue economy. In this way, the project will contribute to the Nairobi Convention approaches to MSP at a regional level. In addition, it will also contribute to the Convention's requirement for improved reporting on the marine environment.

Although there is no comprehensive national protected areas strategy and action plan, it is useful to align the child project with the country's NBSAP (Table 5). This strategy essentially aligns with the Aichi targets.

Table 5 Project contributions to the 2015-2025 NBSAP

NBSAP strategic objectives	Contributing project components
Objective 1: By 2025, policy makers and 65% of the Malagasy people are aware of the values of biodiversity and the measures they can take to protect and use it sustainably	Component 1
Objective 2: By 2025, at the latest, biodiversity values, opportunities and benefits of conservation and sustainable use will be recognized and integrated into the country's socio-economic development activities.	Component 2
Objective 4: By 2025, the Malagasy government and stakeholders at all levels will take appropriate measures to implement rational management plans of resources and maintain the impact of the natural resources use within safe ecological limits»	Components 1, 2 and 3
Objective 5: By 2025, the rate of degradation, fragmentation and loss of habitats or ecosystems is reduced	Component 3
Objective 6: «In 2025, all exploited fish stocks and other marine living resources and freshwater / brackish water are measured and managed sustainably, and destructive harvesting practices are eliminated	Component 3
Objective 10: By 2025, the multiple anthropogenic pressures on coral reefs and other vulnerable marine ecosystems impacted by climate change or ocean acidification are minimized, in order to preserve their integrity and functioning	Component 3
Objective 11: In 2025, 10% of terrestrial ecosystems and 15% of coastal and marine areas, especially the areas of particular importance for biodiversity and	Component 1

NBSAP strategic objectives	Contributing project components
ecosystem services, are conserved adequately in ecologically representative systems and in protected areas and are managed effectively by different strategic approaches	
Objective 12: By 2025, the extinction of endangered species is reduced and their conservation status improved	Component 3
Objective 14: In 2025, terrestrial ecosystems including forests, marine and coastal, sweet-brackish water including mangroves and lentic environments that provide essential services, particularly water supply and those that contribute to health, livelihoods and human well-being are protected and restored. And equitable access to ecosystem services is ensured for all, taking into account the gender approach	Component 3
Objective 18: In 2025, the initiatives set up to protect traditional knowledge, innovations and practices of local communities are relevant to biodiversity. The traditional sustainable biodiversity use and their contribution to conservation are respected, preserved and maintained	Components 1 and 3
Objective 19: By 2025, knowledge and basic science related to biodiversity, its values, its operation and its statement are widely shared with decision makers and applied all the trends and consequences of its loss are mitigated and improved	Component 1

The project will contribute substantially to national fisheries policy development as described in the SWIOFish2 section of the PFD. It will thus promote improved environmental conservation and resource productivity within MPAs and LMMAs.

The Project also addresses several of the Main Areas of Concern that have been identified and agreed by all the countries in the western Indian Ocean LMEs as being their main transboundary issues, in particular Habitat and Community Modification and Declines in Living Marine Resources as well as Unpredictable Environmental Variability and Extreme Events (as per climate change).

2.9 CONSISTENCY WITH GEF FOCAL AREA/FUND STRATEGIES

This project seeks to expand Madagascar's MPA network in order to strengthen representation and protection of one of the world's richest marine environments. In parallel it seeks to expand LMMA coverage, principally to promote sustainable marine resource use, but also to supplement biodiversity conservation coverage. As such, the project contributes equally to BD-1 Program 1 and BD-1 Program 2 (Table 6) and related global environmental benefits.

The project will directly contribute to the goals of GEF-6 Biodiversity Strategy, in particular BD-1/Program 1 and BD-1/Program 2. Under the former, the project will focus primarily on Outcome 1.2: Improved management effectiveness of protected areas. The project's Component 3 provides the main thrust in this context, investing in improved site-level infrastructures, the development and deployment of management toolkits well adapted to the conditions found in Madagascar's MPAs and LMMAs, and a training program targeting co-management groups responsible for the sites. Component 2 will also contribute to Outcome 1.2

insofar that it improves the legal and regulatory frameworks for MPAs and LMMAs. The Component will also strengthen the institutional capacity of MEEF with respect to defending the interests of MPAs and LMMAs in the context of sustainable development under the auspices of a blue economy.

The project will also contribute directly to Output 1.1: Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management. Although addressing the financial sustainability at the national level is beyond the scope of the project, it will invest in generating revenues and cost recovery from these for at least some management costs at site level. Firstly, it is important to recall that increased revenues through improved resources management is an important motivator for local stakeholders to invest in maintain or restore the environment and its productivity. Secondly, the project will build upon the small number of cases where local stakeholders have agreed to allocate a proportion of the increased revenues to cover some of the sites' routine management costs. Component 3 is the main vehicle in achieving these aims, but Component 2 will contribute also.

Component 1 is the main contributor to two outcomes under BD-1/Program 2. First, the project contributes to Outcome 2.1: Increase in area of terrestrial and marine ecosystems of global significance in new protected areas and increase in threatened species of global significance protected in new protected areas. The project aims to at least double MPA coverage to over 2 million ha as a major contribution to Madagascar's Aichi Target 11 commitments. In doing so, it will focus expansion on known areas of high biodiversity value including KBAs. It will draw upon the lessons learned under Component 3 (management effectiveness and contributions to financial sustainability). LMMAs that are eligible to contribute to the target will add to this coverage.

Secondly, the project will contribute to Outcome 2.2: Improved management effectiveness of new protected areas. Most of Madagascar's MPAs were created in the previous 15 years and are therefore 'new' insofar that they prompted innovative governance and management approaches that were previously not applied. In this sense, the project's Component 1 aims to consolidate and expand on lessons learned during this time and developed anew under Component 3.

Table 6 outcomes and indicators GEF Focal Areas and expected project

GEF Focal Area Objective/Program	Expected GEF Outcomes and Indicators	Project Contributions to GEF Indicators
BD-1: Improve sustainability of protected area systems Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure	Outcome 1.1. Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management. Indicator 1.1: Funding gap for management of protected area systems and globally significant protected areas. Outcome 1.2: Improved management effectiveness of protected areas. Indicator 1.2: Protected area management effectiveness score.	The project's main contribution will be increased management effectiveness achieved through essential infrastructures, the deployment of well-adapted management toolkits and targeted tally compatible and training at site level. Regarding Outcome 1.1, the project will increase and diversify revenues for local stakeholders, mainly community-based groups. The mechanisms used in doing so will be environmentally sound, and care will be taken to ensure gender and social equality.
BD-1: Improve sustainability of protected area systems Program 2: Nature's Last Stand: Expanding the Reach of the Global Protected Area Estate	Outcome 2.1 Increase in area of terrestrial and marine ecosystems of global significance in new protected areas and increase in threatened species of global significance protected in new protected areas. Indicator 2.1 Area of terrestrial and marine ecosystems and number of threatened species. Outcome 2.2: Improved management effectiveness of new protected areas. Indicator 2.2: Protected area management effectiveness score.	The project's contribution to Outcomes 2.1 and 2.2 will be at least of doubling of protection for one of the world's richest marine biodiversity areas. It is especially significant in that Madagascar's seas feed into two major LME's, the Agulhas and Somali Currents that are great importance to the economies of coastal eastern Africa, the Comoros and Madagascar.

2.10 WWF COMPARITIVE ADVANTAGE AND CONSISTENCY WITH WWF PROGRAMS

The vision of WWF is to build a future in which people live in harmony with nature; its mission is to conserve nature and reduce the most pressing threats to the diversity of life on earth. WWF around the world focuses its efforts toward achieving six major goals in the areas of Forests, Oceans, Wildlife, Food, Climate, and Fresh Water, and on three key drivers of environmental degradation: markets, finance, and poor governance. This project is a priority for WWF's Oceans goal but it will contribute to its Food goal.

This proposed project aligns with and will advance WWF Biodiversity goal: By 2050, the integrity of the most outstanding natural places on Earth is conserved, contributing to a more secure and sustainable future for all. In particular it will contribute to the following intermediary goals:

- 2020 Biodiversity Goal - Places By 2020, biodiversity is protected and well managed in the world's most outstanding natural places.
    - These include the Madagascar region[11] and the world's richest coral reefs, and
- 2020 Biodiversity Goal - Species By 2020, populations of the most ecologically, economically and culturally important species are restored and thriving in the wild.
    - In Madagascar these include reef-building corals, marine cetaceans, sea turtles and tuna.

In order to achieve the Oceans goal, the key strategies of WWF are to promote representative and adequate MPA coverage, to ensure that they are effectively managed, and to promote sustainable use of marine and coastal resources.

WWF in Madagascar. WWF has been supporting projects in Madagascar for more than 50 years. In the early 2000s, it moved away from project support as its main focus towards an ecoregional approach that targeted large landscapes and seascapes rich in biodiversity and critical for the wellbeing of people. Since 2015, it has refined this approach by investing in four large landscape/seascape areas: the northern highlands, the country's largest contiguous forest area; the Northern Mozambique Channel covering north and northwestern Madagascar, the Comoros, northern Mozambique, southern Tanzania and the most southerly atolls of the Seychelles; the center-west large mangrove ecosystems; and the arid southwestern thorn thickets and their adjacent coral reef and lagoon ecosystems.

WWF's aim in Madagascar is to ensure that conservation empowers local stakeholders to fulfill their aspirations for a better future for themselves and their future generations. In this respect, WWF promoting protected areas and associated natural areas to link the dual goals of maintaining/restoring biodiversity and productivity and improving natural resource-based to improve local livelihoods. Regarding marine and coastal conservation, WWF works with governments to establish MPAs and LMMAs in Madagascar and the Northern Mozambique Channel. It also works in close support communities to help them develop locally based a well-regulated and sustainable use of marine and coastal resources. The communities are making substantial progress in restoring mangroves and their productivity, developing ecotourism, and designating fishing reserves to allow marine species to reach maturity before catching them.

WWF has long-standing relations with key government agencies while it is also supporting civil society capacity to defend their natural resources interests and rights at all levels. It is also a founding member of the FAPBM, the foundation created specifically to promote protected areas.

[11] Originally this focused on Madagascar's terrestrial ecosystems but WWF now recognizes the importance of marine spaces, particularly the Northern Mozambique Channel at the origin of the Agulhas and Somali Large Marine Ecosystem.

Organizational capacity and previous performance. For more than 50 years, WWF has worked to preserve the diversity of life on earth. As the leading global conservation organization, WWF works in 100 countries through a network of independent WWF offices. In the United States, WWF has more than 400 staff and an annual operating budget of over US$250 million. Across the global WWF Network there are nearly 6,000 WWF staff members supported by a budget of more than €650 million (US$720 million). WWF is supported by 1.2 million members in the US and over 5 million globally.

The WWF network is committed to and has extensive experience working with partners and other grantees through the issuance of sub awards to accomplish program results. In addition, WWF US has demonstrated that it has the financial resources and operational experience to manage government donor agreements. To date, WWF US has received more than 400 awards and sub awards funded by the US Government totaling over US$430 million.

2.11 INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP

Innovativeness. The overall program will ensure that collaboration between MEEF and MRHP is systematic in some of the most biodiverse and productive waters in Madagascar. The two child projects bring together two complementary sectors that have been periodically at odds in the past. The cooperation between the two ministries with critical support from MPA/LMMA promoters will show definitively that effective biodiversity conservation and sustainably managed fisheries not only complement each other but together add significant value to both sectors. In doing so it will build upon the relatively modest but promising results to date, test new options, improve the livelihoods of coastal communities and help to ensure a healthier environment.

The project's institutional framework and implementation arrangements formalize the constructive flow of information and knowledge from central government to local communities and *vice versa*. The historical top-down system is increasingly replaced by bidirectional exchanges that help to provide critical feedback that ensures that site-based conservation measures and locally managed sustainable development initiatives are framed in a favorable policy and regulatory environment that is well adapted to local aspirations. Thus, the government's willingness to update the regulatory framework for MPAs based on lessons learned at site level is a major step towards improving this favorable enabling environment. Equally, the willingness of coastal communities and other local stakeholders to test and adopt new approaches to environmental and natural resources management of is also encouraging. The role of the promoters in supporting MPAs and LMMAs has no doubt been instrumental in this regard as it responds to the government's constrained institutional capacity to operate effectively along Madagascar's extensive coastline that extends over 5,000km. In addition, the development of equitable agreements between the private sector and coastal communities is a truly innovative shift in the country. While such agreements are still rate, they indicate that similar cooperation may proliferate in the future. As most if not all such agreements have been brokered through promoters to date, the child project's aim of expanding the options for future collaboration will help to consolidate the role of locally managed MPAs and LMMAs in the context of a blue economy.

At national level, the declaration of the Sydney Promise and the partnerships for implementation have for the first time brought together government ministries to work together to manage Madagascar's seas sustainably. The creation of the Sydney Promise Steering Committee with senior staff from all ministries with legitimate interests in maritime resources has generated new collaborative initiatives using MSP among other approaches to reduce multi-sectoral tensions and conflicts wherein MPAs/LMMAs have an a more equal footing in the process. The emerging collaboration between the ministries, especially involving M2PATE, MEEF, MRHP and those involved in developing extractive industries, is innovative given that historically the perceived conflicts of interest significantly hindered multi-sectoral collaboration. The critical contribution of the child project is to catalyze the development of the proposed Aichi Target 11 strategy and action plan, a tool for all agencies to work towards common goals. It will also help to catalyze cooperation between ministries in a way that improves the enabling environment for the Aichi Target 11 strategy and action plan.

Programmatic sustainability

Under Component 1, the Aichi Target 11 strategy and action plan will provide long-term guidance for expansion of the MPA and LMMA networks. This will be achieved through sub-grants to project partners. The project will support action plan implementation thus laying out a foundation for more extensive and more effective MPA/LMMA protection for biodiversity, even though the full impacts of the project will require longer than the five-year project timeline. The MPAs/LMMAs created or extended through the project will maintain their status after the project has been completed. By helping to improve marine and coastal natural resource management, the project will also help to maintain and restore the productivity of Southwestern Indian Ocean fisheries and overall environmental health.

Under Component 2, the project will focus on establishing or streamlining regulatory frameworks that are well adapted to the marine and coastal environments. These changes are also aimed at encouraging stakeholders to manage natural resources more effectively. Once these changes come into effect, they will provide an improved enabling environment for all MPAs and LMMAs beyond the life of the project. This component will also strengthen the capacity of MEEF to promote MPAs and LMMAs within a broader multi-sectoral planning framework. This will be realized by an analysis of the contributions MPAs and LMMAs make to sustainable development based on a natural resource-based economy, together with target training for key decision-makers and marine conservation promoters.

Component 3 is designed to systematically build MPA/LMMA site-level capacity to help community groups and other local stakeholders develop new skills in managing organizations, cooperation, conflict resolution and gender equality. In parallel, the project will also build local technical capacity to effectively conserve marine biodiversity and to improve management of natural resources.

Although these skills will continue to develop after the project is completed, the foundations for continued institutional and technical capacity strengthening will be well established. These skills will continue to be improved after project completion, but the foundations being laid during project implementation will help to build stronger capacity into the future.

Finally, under Component 4, the project will generate considerable new knowledge and valuable lessons. These will be shared widely among stakeholders in Madagascar and additional interested parties elsewhere. A communications plan will also help to inform the public of the values of MPAs and LMMAs, as well as their value to Madagascar's development.

Environmental sustainability

Environmental sustainability by strengthening institutional and technical capacities for improved management effectives for MPAs and LMMAs. As there is a close linkage between local economic development and biodiversity health, community co-managers will be willing to maintain or restore environmental health and productivity as they are perceived to be the source of their wellbeing and incomes. Conflicts between migrant and resident fishers continue to develop local resource access agreements that are fair. In the short-term, on-site interventions will help to consolidate management standards across within a sub-set of MPAs and LMMAs. This will translate to improved core management practices including operational planning surveillance and control, biodiversity M&E, and more equitable and effective governance systems. Through these improvements, the project will directly contribute to more effective threat control and thus environmental sustainability in these MPAs and LMMAs. In those MPAs/LMMAs where natural resource based economic options are developed and shared with other sites, the project will generate a knowledge base that will be used to ensure that the are adequately monitored.

In the medium to long-term, the project will provide effective protection and management of key ecosystems and their species that are not currently protected. As an example, the unique ecotone between the southern

African and Indian Ocean marine biotas, together with its endemic species, will be added to the network of MPAs/LMMAs in Madagascar's waters. By implementing the Aichi Target 11 strategic plan, GEF support will set the foundations for more extensive and effective MPA/LMMA coverage, even though full realization of the plan's impacts will take longer than the project's lifespan. By contributing to improved marine and coastal natural resource management, the project will also help to maintain and restore the productivity of Southwestern Indian Ocean fisheries and overall environmental health.

By supporting a multi-sectoral, strategic approach to marine governance, GEF funding will help to strengthen inter-institutional coordination and management while also fostering cooperation and synergies among initiatives that promote the conservation and sustainable management of Madagascar's waters and their natural resources. The positive impacts arising from this coordinated approach will be further enhanced by project support to strategic multi-MPA/LMMA planning that targets ecosystem- or seascape-level conservation.

Institutional sustainability

The project will differ from many earlier MPA/LMMA initiatives that were focused on individual sites or a particular geographical area in that it targets a multi-level systematic strengthening of institutional and technical capacity development. By supporting the cross-sectorial Sydney Promise Steering Committee together with its Aichi Target 11 strategic plan, capacity building needs will be identified as the plan is rolled out. In this way, the project will foster high-level institutional capacities to implement the plan is a cooperative and coordinated manner. It will also systematically build MPA/LMMA site level capacity to help community groups and other local stakeholders to develop new skills in conflict management, gender equitability and cooperation, as well as the technical skills to effectively manage biodiversity and natural resources management. Although these skills will continue to develop after the project is completed, the foundations for continued institutional and technical capacity strengthening will be well established.

The creation of a more favorable enabling environment described in Component 2 will help to establish or streamline regulatory frameworks that are well adapted while also motivating local stakeholders to manage their environment effectively. This component will also focus support on strengthening institutional capacity within MEEF aimed at their respective roles in promoting MPAs and LMMAs with a broader multi-sectorial planning framework. Specifically, the child project will provide targeted training regarding MPA economic and social benefits, together with additional learning opportunities such as conferences. In Addition, the project provides cumulative learning that will benefit the MEEF as principal implementing agency.

The project's management arrangements (Section 3) will ensure that all institutional levels are involved in project coordination and working closely together. For example, the project management unit (PMU) will regularly coordinate with its equivalent body managing the SWIOFish2 child project. The PMU will also work closely with a coordination/implementation body at the level of the region, and the latter will include technical personnel within the ministries together with representatives from the region's administration, promoters and local stakeholders. This structure will help to ensure that information and lessons learned flow effectively through all levels.

Finally, the sustainability of project outcomes and benefits beyond the completion of the GEF project will be ensured through its conformity with national priorities, policies and plans, including those centering on the Aichi Target 11 commitments, the development of a blue economy, and implementation of the NBSAP.

Social sustainability

Through the integration of MPAs/LMMAs into a broader cultural and social landscape, the project is expected to consolidate existing support from multiple stakeholders and sectors. It is also expected to expand the stakeholder support base as it tests and develops improved governance and management approaches well aligned with local aspirations, while also helping to empower local communities with respect to their rights and responsibilities in MPA/LMMA management. For example, the project will foster more favorable enabling

conditions, strengthened local capacity and clearer regulations concerning natural resources management. The revenue generating activities promoted by the project will provide opportunities for gender equity and equitable participation by all members within the community. Furthermore, in strengthening local capacity to promote their integration into sustainable value chains management, communities will be able to more ably negotiate fair trade agreements with the private sector partners.

Finally, the feedback from community co-management and sustainable management of natural resources will be strengthened by the project's awareness-raising and communications activities with respect to the cultural, social and economic benefits that effective conservation and sustainable resource management provide.

Potential for replication and scaling up

Although the project focuses its investments on a relatively small sub-set of MPAs and LMMAs, it is designed to promote scaling up through site exchanges and lessons sharing between the focal sites and others that do not enjoy the same support. The project's knowledge management and communications strategies will ensure that lessons are shared widely through targeted training programs and learning exchanges between sites. On a broader geographical scale, the project will take advantage of other programs such as the Northern Mozambique Channel initiative that involves northern Madagascar, the Comoros, Mozambique and Tanzania.

The project will improve enabling conditions for the creation and management of MPAs and LMMAs. In doing so, the barriers to creating and effectively managing these sites will be significantly reduced, thus making it more likely that promoters will be more willing to extend their investments to high biodiversity areas where no MPAs or LMMAs exist at present. The improved enabling conditions will also strengthen local stakeholder motivation to effectively conserve their natural environment and its natural resources.

The development and implementation of the Aichi Target 11 strategy and action plan will establish a clearly defined framework that will lay the foundation for future phases. A well-defined strategy that represents government policy will provide a mechanism that the government and promoters can use to attract additional donors wishing to support marine conservation coverage and improved natural resources management. This will be supported through the project's communications strategy. In parallel, the project's aims contributing to the proposed multi-sectorial MSP process will help to ensure that potential conflict between the sectors is manageable.

Finally, the remarkable exchanges of information through word of mouth and inter-community relations in recent years led to the rapid emergence of the MIHARI Network and other civil society platforms created to support MPA and LMMA development. The positive social and environmental impacts within specific MPAs and LMMAs, coupled with this very effective knowledge sharing over large areas, indicates that the conditions are favorable at the grass roots level for achieving Aichi Target 11.

2.12 KNOWLEDGE MANAGEMENT AND COMMUNICATIONS STRATEGIES

The success of the child project, especially in the long-term will depend to a large extent how effectively knowledge and lessons are communicated and shared. Learning from and sharing the lessons that the project itself creates will be critical with respect to scaling-up through exchange meetings and training. Component 4 describes the PMU will promote a systematic approach as a means to (i) identify, capture and retain knowledge deemed to be relevant and useful; (ii) share knowledge with key audiences; (iii) apply knowledge to adapt the project through its lifetime if required, especially with respect to up-scaling; and (iv) monitor and evaluate the impact of knowledge and lessons learned generated by the project.

In addition to the preparations for the Biannual Project Progress Reports, GEF funding will support and annual review workshop organized by the PMU. It will involve key personnel from all levels within MEEF, MRHP, other pertinent ministries and additional key partners and will assess whether project strategies are generating

the expected results identified in the theory of change. The workshop will also reassess risks and assumptions that may impact progress and make suggestions to make the project more effective. Special attention will be given to monitoring how effectively gender mainstreaming is occurring and whether the safeguards strategies are appropriate and effective. The PMU will share the results of the workshop with all stakeholders including government agencies, civil society groups and the private sector with reports in French and Malagasy. The reflections will also be included in Project Progress Reports. Other relevant GEF programs will receive reports, such as SAPPHIRE and WIOSAP. If the results indicate that changes need to be made to the project strategy, they will be integrated during the subsequent annual workplan.

Relevant technical data that arise through project implementation will be lodged in the REBIOMA, the *de facto* database and accessible to all interested parties. In addition, lessons will be sorted under different categories linked to project components. For example, lessons linked to Component 1 will address issues associated with KBA assessments, Aichi Target 11 progress and the effective representation of biodiversity through new or extended MPAs/LMMAs. There will also be specific categories to monitor the effectiveness gender mainstreaming, stakeholder engagement, safeguards strategies and knowledge sharing. The lessons will be shared during steering committee meetings where they will be reviewed and confirmed. The PMU will also support MEEF participation in relevant national, regional and international meetings to share knowledge and lessons more widely.

Working with partners, the PMU will identify the most useful lessons learned and apply this information to develop a series of specific themes that facilitate replication and scaling-up. Some of these themes will be in the form of project outputs such recommendations for updating regulatory frameworks or integrating MPAs/LMMAs in MSP. Specific lessons learned will also be integrated into best practice manuals for use in Components 1 and 3.

It is important to note that knowledge and lessons sharing are not one-way. Through its implementing partners, the PMU will exchange information with other key players with similar interests in order to set up joint workshops or other communication options to share knowledge and lessons. For example, the investments pole project under the World Bank can share lessons that have arisen through supporting private sector development, particularly through partnerships with community groups. Similarly, additional projects may be especially useful to refine gender mainstreaming strategies or other social considerations: WWF's Leading the change project operating in the Diana, Melaky and Menabe Regions are likely to be particularly in these respects. Finally, the presence of several MPA/LMMA promoters in specific biodiversity rich areas such as the northwest should generate knowledge and lessons by working together to develop seascape level approaches to ensure a more holistic means to maintain extensive ecosystems and thus their diverse goods and services.

In addition to the above, the MPA Child Project will develop several knowledge products to support MPA/LMMA expansion and effective management. Each knowledge product requires a strong communications approach to both ensure the products are appropriately shared and accessible, and to ensure the products are effectively mobilized and utilized past the length of the project. These knowledge products include:

1) A Strategy and Action Plan for meeting the Sydney Promise—The Strategy and Action Plan will be developed in partnership with key stakeholders. It will be published and shared widely. A communications memo will be developed alongside the Action Plan targeting potential donors and partners, with an aim to mobilize additional resources in support of the Plan's implementation.
2) An assessment of the economic and social benefits of MPAs— MEEF/DSAP will share the assessment and use it as a basis to advocate for the value of MPAs and LMMAs in an MSP context.
3) An effective management toolkit that can be adapted to local conditions—the toolkit will be published and shared with key promoters to ensure wide uptake.

After project inception, and to inform the above, the PMU will work partners to develop a communications strategy. This will include specific actions by the PMU itself to ensure that project information is made available to all interested partners and regularly updated. There will also be specific roles for key partners who have their own web-based communications platforms including e-newsletters or twitter feeds for example. When this communications option is deployed the PMU and the steering committee will ensure that MEEF, GEF and WWF branding requirements are respected.

The communications strategy is part of the project design to raise awareness and build capacity. It may include media campaigns that address particular threats that emerge or intensify such as excessive mangrove clearance or inshore commercial fishing in sensitive areas. The form of the communications strategy will be published by the PMU after project inception and with steering committee approval.

Finally, knowledge sharing, lessons learned, and communications will take advantage of other extensive networking groups. These will include, but not be limited to, the MIHARI Platform, the Western Indian Ocean WIOMSA and NGO consortiums such as those involved in the Northern Mozambique Channel initiative.

SECTION 3: INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION ARRANGEMENTS

3.1 GENERAL PROJECT MANAGEMENT STRUCTURE

Since the submission of the PFD, important changes have taken place in the political context of Madagascar. In late 2016, the State Secretary for the Ocean (SEMer) was created with a mandate to coordinate the development and implementation of policies and plans related to the sea, including the development of MPAs. Project institutional arrangements had been designed in close collaboration between the Ministry of the Environment, Ecology and Forests (MEEF) and the State Secretary for the Ocean (SEMer). Following a change in government, SEMer was dismantled in June 2018. The following institutional arrangements (Figure 4) are based on currently known roles with a high probability of being maintained in the future. However, given that further changes are expected within the political landscape of Madagascar following the planned elections in late 2018, this proposal will be evolving, and project implementation arrangements will be confirmed prior to implementation.

The project will have the following institutional involvement.

WWF-GEF Agency. World Wildlife Fund, Inc., WWF-US. GEF Partner Agency (Implementing Agency), responsible for funds allocation, project supervision and reporting to the GEF Secretariat.

Lead Executing Agency. *Ministry of Environment, Ecology and Forests, MEEF*. MEEF is the responsible agency for all protected areas in the country and will be responsible for the project's strategic and operational direction and for ensuring that activities in MPAs selected as pilot areas are in compliance with the Prodoc and the standards, norms and safeguards of the GEF Agency.

MEEF will be responsible for (i) implementing the recommendations and instructions of the Project Steering Committee; (ii) defining the structure of the PMU; (iii) appointing the National Project Director who will provide overall supervision of project implementation and ensure liaison with the GEF Agency (in this case the National Project Director will be the MEEF Secretary General); and (iv) submitting the following reports to the GEF agency:

- Project Progress Report (PPR) [semi-annual]
- Annual Work Plan and Budget [annual]
- Completed Results Framework [annual]
- Final Project Report

- Tracking Tools / Core Indicators [midterm and project close]
- Co-finance letters [annual]

WWF Madagascar Country Office (MDCO). WWF MDCO will provide capacity building assistance, to the MEEF and to the PMU, on specific MPA related topics such as ecological monitoring, climate change adaptation and management effectiveness tools. WWF MDCO will facilitate the interface between the various proponents in the project governance and provide advice and support in the recruitment of the Project Management Unit members and identification of MPA promoters. In addition, WWF MDCO will enable project continuity and ensure sustainability of project outcomes by providing institutional knowledge on the project should staff turnover occur. Terms of reference for the WWF MDCO technical assistance will be finalized before Agency Approval and a technical assistance contract with MEEF will be established.

Madagascar Protected Areas & Biodiversity Foundation (FAPBM). The FAPBM is an organization with experience in providing financial and procurement capacity for environment projects in addition to ensuring sustainable finance for protected areas in Madagascar. Examples of this experience include their role with the National Environmental Program funded by World Bank IDA and GEF in which the World Bank had included a separate, independent mechanism for financial management and oversight called the Environmental Program Coordination Unit (UCPE). For this MPA child project, the FAPBM will operate in a very similar way to the UCPE by having the following role:

- The foundation will ensure the management of all financial flows related to the project, in support to the PMU.
- The foundation will ensure that the GEF Agency (WWF US) financial management standards and requirements are met in all financial transactions and operations related to the project.
- The foundation will execute all financial transactions and operations, as approved in project workplans and budgets by PMU (cash flows, payments, etc.)
- The foundation will provide support to the PMU in budget elaboration and monitoring.
- The foundation will establish all financial reports to be approved by the project Steering Committee before submission to WWF US
- The foundation will implement all procurement procedures in compliance with WWF US procurement rules and standards, establishment of grants to partners, etc.

Due diligence assessments performed by the WWF GEF Agency team confirmed that the appropriate processes and standards are in place to undertake this duty.

3.2 PROJECT MANAGEMENT AND SUPERVISION

The project will have the following management and supervision bodies.

Sydney Promise Steering Committee. This committee already exists and is the highest level authority for the project. It is composed of all government departments involved in marine issues (e.g., maritime transport, fisheries, tourism, environment, land use planning, oil & gas, etc.), marine conservation NGOs (WWF, WCS, Conservation International, Blue Ventures), some private sector in the fisheries industry and the platform of Locally-Managed Marine Areas (LMMAs) managers MIHARI. Until June 2018, this Committee was chaired by SEMer; it is anticipated that this role will be taken over by MEEF or MRHP moving forward.

The role of the committee is to: (i) lead, coordinate and monitor the implementation of the Sydney Promise to expand the MPAs and community-based management of marine resources; (ii) provide the political and strategic framework and support for the realization of the Sydney Promise; and (iii) ensure the child project effectively contributes to the realization of the Sydney Promise to expand the MPAs.

Child Project Steering Committee. This Committee is chaired by the MEEF General Secretary. It is a subset of the above Sydney Promise steering committee and will comprise of NGO and government representatives relevant to the child project.

The committee will: (i) ensure the good execution of the project according to plans and budgets while also providing recommendations and instructions to the Executing Agency (MEEF); and (ii) approve all AWPBs and reports by the MEEF before submission to GEF Agency (WWF-US).

Project Management Unit (PMU). The PMU is under the supervision of the Project Director appointed by and accountable to MEEF. The financial management of the project will be undertaken jointly with the FAPBM.

The following composition of the PMU is based on the planned project outcomes, outputs and activities. MEEF, with the support of WWF Madagascar, will hire the PMU staff. PMU staff will be hired following an open and transparent recruitment process to be led by MEEF, with participation of WWF-MDCO. The PMU staff will be contracted by MEEF. The PMU will be located within the MEEF complex in Antananarivo and report to the Direction du Système des Aires Protégées (DSAP). The duties of PMU personnel are the following.

Project Coordinator (line managed by National Project Director but selected jointly by MEEF- WWF Madagascar). This person will coordinate and lead the PMU under guidelines and/or directives of the project steering committee to implement project components and activities aimed at achieving Aichi Target 11 commitments. The coordinator will lead the projects strategic and planning processes together with annual workplans and procurement plans. The coordinator will provide continuous oversight and leadership on the technical, financial and administrative implementation of project and monitor the deliveries of activities, outputs and outcomes defined in the Prodoc and annual workplans. An additional responsibility will be to coordinate WWF-GEF Agency supervision meetings and organize project steering committee or Sydney Promise Steering Committee meetings are deemed necessary. The coordinator will ensure preparation of terms of reference and oversee activities carried out by grant recipients. An additional responsibility will be to prepare reports required by the project steering committee, MEEF, the WWF-GEF Agency and the GEF Secretariat, together with ensuring that information is collated and prepared for the completion of the GEF Tracking Tool. The coordinator will organize and supervise PMU personnel and report to the project steering committee in the case of any difficulties encounters in order to identify solutions.

Marine ecologist. This person will provide leadership and guidance aimed at ensuring management activities are favorable to maintaining or restoring MPA/LMMA biodiversity health and productivity. The individual will also work with grant recipients to explore measures that will promote seascape level conservation either through sufficiently large and well-designed new MPAs or by encouraging inter-MPA cooperation to provide large-scale conservation impacts.

MPA management expert. This specialist will have a strong background in MPA governance and management and will provide advice to grant recipients and/or, as applicable, communities involved in MPA/LMMA management. This will include support related to site mapping and assessments, equitable governance, strategic planning, adaptive management and the use of management toolkits. The expert will also draft terms of reference for grant recipients and diagnose their institutional capacities. Additional tasks include regular advisory visits to sites and activities targeted by the project and the preparation of technical reports to the PMU coordinator. The expert will report to the PMU coordinator in general terms but will closely coordinate with the Protected Areas Direction within MEEF. A specific task with respect to the latter will be coordinating the analysis of MPA/LMMA benefits within the framework of an MSP process leading to the development of a blue economy (Outcome 2.2).

Planning, Monitoring and Evaluation specialist. The officer will coordinate the preparation and implementation of project learning, monitoring and evaluation plans, assess the achievement of goals and indicators in the

Results Framework, update the GEF Tracking Tool, and prepare monitoring follow-up recommendations and reports. The expert will also follow-up on agreements and commitments presented in the WWF-GEF supervision reports, participate in preparing workplans and provide impact evidence to promote the projects knowledge management and communications. The person will also collect, analyze and maintain data and maintain an updated database related to project implementation, monitoring and evaluation. The officer may work with M&E and data management specialists within MEEF and, as required external specialist bodies.

Safeguards and Community Engagement Officer. The Safeguards and Community Engagement Officer will coordinate the implementation of environmental and social safeguards as per WWF SIPP and WWF Gender Policy, more specifically he/she will coordinate implementation of the ESMF and Process Framework by sub grantees. In addition, the Officer will facilitate community engagement at the site level for all subgrants. The officer will provide training to subgrantees on WWF SIPP and Gender Policy and advise on the implementation of the ESMF and Process Framework as well as gender sensitivity. As per the Process Framework, the project Grievance Redress Mechanism should be managed by the Safeguards and Community Engagement Officer and regularly monitored by the PMU Coordinator. As the GRM system will be specific to the project, its active socialization will be important at both community level and with the national, district and local government. The Officer should attend consultations by Subgrantees as part of their supervisory functions conducted on an annual basis.

Communications officer. The officer will work with PMU staff, regional coordination bodies and grant recipients to collect information related to the projects implementation and processes. If required, the officer will provide support to media campaigns related to the project. The officer will work with MEEF and the project steering committee to develop and coordinate a specific project communication strategy based on the Prodoc, workplans and monitoring and evaluation results. The strategy will take into account the diverse audience that will be targeted and tailor products to their particular needs. The person will also maintain active liaisons with media groups and support special publications as recommended by the project or Sydney Promise Steering Committees, MEEF, or the WWF-GEF Agency. The officer will ensure that MEEF, WWF and GEF branding requirements are applied.

Finance and Administration officer. The officer will support preparation of annual workplans, undertake financial follow-up of the project according to WWF-GEF Agency, and FAPBM requirements or those pertaining to other funding sources, budget category, components and activity. The officer will verify funds availability and disbursements to be made based on budget programming, make and record payments, monitor and project expenditure reports, support payment reconciliations, keep reconciliation records; undertake monitoring visits and administrative supervision in areas of project implementation; support report preparation.

The roles of the PMU are to:

- Ensure the daily operational and technical management of the project in compliance with the ProDoc and following the recommendations and instructions of the Project Steering Committee and approved plans and budgets.
- Ensure the elaboration of all project management documents (workplans, budgets, terms of reference, etc.) as jointly defined with the GEF Agency.
- Support the MEEF in the preparation of all reports to be submitted to Steering Committee for approval before submission to the GEF Agency.
- Coordinate and monitors the implementation of activities with all partners.
- Ensure the monitoring and evaluation of the project in compliance with GEF Agency and ProDoc requirements.
- Ensure knowledge management and sharing of lessons learned in compliance with GEF Agency and ProDoc requirements.
- Ensure effective communication of the Project objectives and achievements.

Site-level Management and Supervision: At the level of each site, project activities will be managed and conducted by promoter NGOs selected through the process described in Output 1.2.1 and Output 3.1.1. These NGOs will implement the activities related to the establishment and management of MPAs and to the support of local communities organized in LMMA management committees. The MEEF Regional Director (DREEF) in each of the regions will represent the PMU and ensure overall supervision and coordination of project implementation. The DREEF will in particular ensure there is close coordination with the Regional Fisheries Direction (DRHP) in the implementation of project activities.

Region-level coordination. Successful establishment and management of MPAs and LMMAs requires that they are well embedded in the regional processes for development planning and decision-making at the level of each project area intervention. The DREEF has the lead responsibility for ensuring this, working in close collaboration with promoter NGOs. Several regions have existing bodies that may act as platforms for MPAs/LMMAs to be embedded in regional priorities. For example, in the northeast there is the Antongil Bay Sustainable Development Platform while in other regions there may be local multi-sectorial ICZM coordination groups. Wherever possible, therefore the PMU will work with each DREEF and promoter NGO to identify the most appropriate coordinating body using existing entities. However, it is possible that no such body exists in some regions, and grant recipients will work closely with the regional authority to seek a solution. These platforms will always have to include decentralized territorial collectivities (CTDs) which include Head of Region and mayors, decentralized technical services (STDs) which are the regional departments of each relevant ministries (Fisheries, Tourism, Transport, Mining, etc.), and civil society representatives (including NGOs, CSOs and CBOs). The private sector will be represented as much as possible. It is important to ensure that all are adequately represented.

The regional-level coordination body/platform, regardless of its composition, will coordinate closely with the PMU, through the DREEF and promoter NGO, in all aspects of project implementation pertinent to their geographical purview. The roles will be to mobilize stakeholders, identify and recommend sites and initiatives for project funding, and to provide technical or other support as required.

3.3 FINANCIAL FLOW

There will be 3 types of delivery mechanisms to implement project activities:

1. Activities directly implemented by the government (MEEF):
    - FAPBM will establish funding agreements with MEEF (at national or regional level as relevant) based on work plans and budgets developed by the PMU and approved by the Steering Committee.
    - FAPBM will provide training to grantees on FAPBM and WWF US financial management procedures and standards
    - Grantees will be requested to open a separate bank account for the project funds
    - An advance payment and revolving fund system will be applied with a ceiling at the equivalent of the amount budgeted for the first three months of any workplan, in order to minimize risks.
2. Activities to be implemented by the government through third parties
    - FAPBM will ensure all procurement procedures based on Terms of Reference developed by PMU and approved by the Project Director and with input from WWF MDCO Technical Advisor.
    - FAPBM will contract all third parties as selected by the PMU in compliance with FAPBM and WWF US procurement procedures.
    - FAPBM will directly pay all services contracted to third parties
3. Activities to be implemented by NGOs
    - FAPBM will establish grants to the NGOs

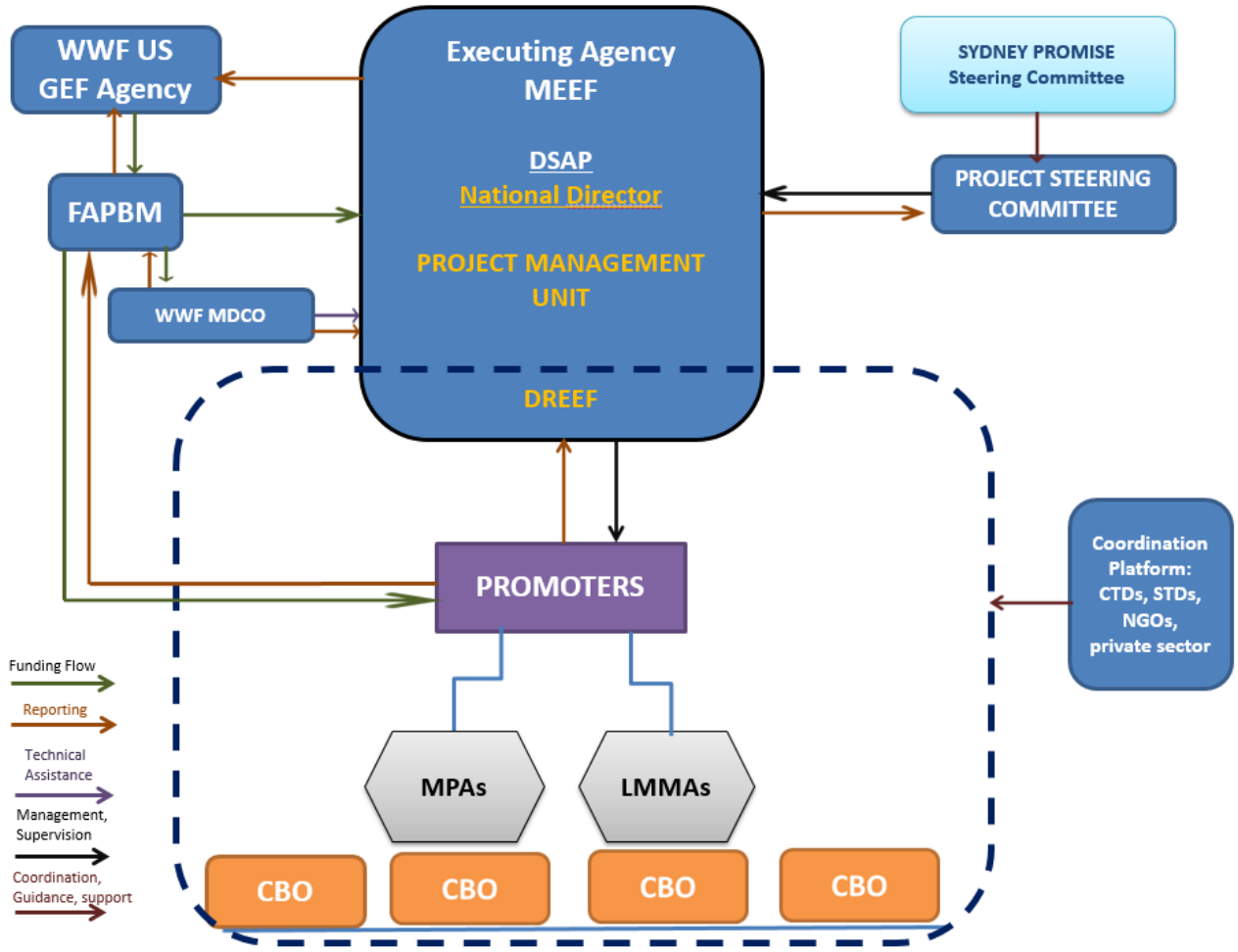
3.4 COORDINATION BETWEEN CHILD PROJECTS

As stated in the PFD, a coordination mechanism will be established to ensure synergy and complementarity between the MPA and the SWIOFish2 child projects. This coordination mechanism will consist of regular meetings between the two government departments leading the two child projects, MRHP and MEEF, and the respective PMU Coordinators of the two child projects. It should be noted that funding for this coordination is budgeted for USD 200,000 within the SWIOFISH2 budget.

At national level, the meetings will involve coordinated planning, monitoring, results analysis and adaptive management of the MPA and SWIOFish2 projects. At the level of the region, the SWIOFish2 project is coordinated at the district level, an administrative unit just below the region. The SWIOFish2 district coordination unit works is managed by the district fisheries officer who in turn coordinates support at the community level. For reasons based on efficiency, the local MPA child project coordination will be placed at the level of the region itself. This difference does not represent a barrier to child project coordination as the two coordination units can organize regular meetings and develop coordinated workplans and M&E.

The coordination mechanism has been formalized through an inter-ministerial agreement between MEEF and MRHP (Appendix 12).

Figure 4 Project Institutional Arrangement



SECTION 4: STAKEHOLDER ENGAGEMENT

4.1 STAKEHOLDER ENGAGEMENT IN PROJECT PREPARATION

Stakeholders were identified by the project's proponents (MEEF, WWF-Madagascar) through a process of regular dialogue with a range of actors involved in MPA/LMMA management or who would participate in project implementation at local to national levels. Stakeholders consulted during project development are presented below, classed under three categories: (a) project partners; (b) national level stakeholders (political decision makers or lobbying groups); and (c) local stakeholders.

4.1.1 Project partners

There are two main project partners, MEEF and FAPBM.

MEEF. The Ministry of Environment, Ecology and Forests has overall responsibility for environmental matters including all protected areas gazetted under the COAP. The Direction of the Protected Areas System (DSAP) directly manages the national PA system including all existing gazetted MPAs and the LMMAs that may be integrated within them. DSAP defines the regulatory frameworks for all protected areas, within the dispositions of the COAP and in coherence with the Environmental Code. The Environmental Code includes other legal environmental obligations such as the obligation to conduct an environmental impact assessment and plan to for all investment/development projects. The MEEF has personnel stationed at the level of the region and more locally at district level. These personnel are required to represent all MEEF departmental interests including those of DSAP. At present, these officers are forestry technicians. MEEF is the implementing agency for the MPA child project and heads the PMU.

FAPBM. This organization is a private Malagasy foundation that is recognized by government as a public utility. The aim of the foundation is to work towards financial sustainability of Madagascar's protected areas and biodiversity conservation. It provides grants to Madagascar National Parks and NGOs to fund protected area recurrent management costs and projects with the aim of reducing the threats and pressures they face, while also addressing the needs of local communities. The foundation has and continues to support protected areas covering more than two million ha and has contributed to improving livelihoods for more than one million people. FAPBM will be responsible for managing the funding arrangements of the child project in conformity with GEF and WWF-GEF Agency requirements.

4.1.2 Partners within the Sustainable Management of Madagascar's Marine Resources Program

The Ministry of Marine Resources and Fisheries (MRHP) and the child project SWIOFish2 that it manages are the key partner within this program. SWIOFish2 is co-funded by GEF and IDA through the World Bank. It has its own PMU under the ministry. Section 3 describes how the two child projects will coordinate activity at national level through regular meetings using the established Fisheries-Environment Coordination Bureau as a forum. At local levels where the child projects overlap geographically, a core team of the Regional Directors of MEEF, MRHP and the local SWIOFISH2 project lead base at district level as well as MPA co-managers (NGOs) will ensure coordination through joint planning, implementation at site level, and monitoring.

4.1.3 National level stakeholders

The project organized four workshops to review project strategies and goals with key stakeholders. The project inception workshop brought together more than 50 stakeholders and partners to review the PFD and child project annex. In conjunction, a project design workshop using WWF's Project and Program

Management Standards (PPMS) was held with 23 stakeholders to identify key conservation targets, threats, barriers, and project strategies. Two more workshops were organized in Antananarivo from February 28 – March 2, 2017 and July 18-19, 2017 to gather feedback on Prodoc content. A project validation workshop took place in May 2018 to present the project, provide a forum for any feedback, and provide next steps. As lead executing agency, MEEF provided regular feedback to the project design and hosted the validation workshop.

Additional consultations were conducted with Madagascar National Parks, regional and local authorities, and NGOs and CSOs.

The national stakeholders considered below include institutions, political decision makers and others whose mandate could have a measurable influence on the child project results and impacts. These stakeholders are key principally at the national level but several are equally important for their contributions at local level as they work with specific MPAs and LMMAs. The main national stakeholders are described in Table 7.

Table 7 National stakeholders discussed during project preparation

Name	Mandate/responsibility	Relevance to project	Consultation in preparation
MEEF	The MEEF is the Government institution which promotes and ensures the sustainable, responsible, rational and ethical use of natural resources, and the environment that sustains them. It is responsible for all gazetted PAs or PA creation initiatives in Madagascar. MEEF is a project partner at both national and local levels.	MEEF participation is essential as it is the implementing agency and responsible for the national PA system.	MEEF, and particularly DSAP, has been consulted throughout project preparation. It has made key decisions and monitored PFD/Prodoc development. It has organized public consultation events at regular intervals and convened meeting with selected project partners as needed. MEEF is a strong supporter of the project.
MRHP	The mission of MRHP is to formulate, implement and coordinate policy concerning marine resources and fisheries for sustainable development. It also conducts or coordinates research for development. MRHP. The SWIOFish2 project is managed by MRHP. MRHP is a project partner at both national and local levels.	MHRP is highly relevant given the importance of sustainable management of local fisheries and other marine resources to MPAs and LMMAs. Its role in managing the SWIOFish2 child project is critical for the MPA project.	MHRP has been regularly consulted during preparation. This includes the broad stakeholder meetings and separate discussions on child project cooperation and coordination.
M2PATE	M2PATE is attached to the Presidency and is responsible for ensuring that presidential projects are implemented correctly as well as coordinating	This ministry is important given its role in coordinating MSP. It will play a key role in promoting MPA/LMMA integration in MSP.	M2PATE has been invited to all public consultation meetings organized by MEEF. It has discussions with WWF-Madagascar regarding the status of ecological infrastructures for

Name	Mandate/responsibility	Relevance to project	Consultation in preparation
	territorial (land and marine use) management processes.		sustainable development based on natural capital principles.
MPMP	The ministry responsible for mines and petroleum is attached to the Presidency. It is responsible for developing and implementing policy, legislation and plans in these sectors. MPMP has consulted environmental organizations in this respect and works with MEEF to resolve potential sectoral conflicts.	MPMP is important given its mandate to promote mining, oil and gas development. It will be particularly important with respect to offshore petroleum development and the concession blocks that have been developed. It is also important in terms of coastal infrastructure developments that may be proposed for mining or oil exploitation.	MPMP has participated in all public consultation meetings.
ONE	ONE has three principle attributes. It is responsible for prevention environmental risks involved in public and private investments or in pollution control strategies. It ensures that all protected areas develop and implement a social and environmental safeguards plan during the creation phase and beyond.	Given its role in ensuring that PAs conform to investment policy and legislation, especially public consultations and safeguards, ONE is very relevant to the MPA project.	ONE has participated in all public consultation meetings.
OMNIS	OMNIS is the agency that carries out national petroleum and mining policy. It also manages petroleum leasing, including offshore concession blocks.	OMNIS is a relevant stakeholder because of its role in managing offshore petroleum blocks and potential new coastal infrastructures related to the industry.	OMNIS has participated in all public consultation meetings.
Ministry of Tourism	The Ministry of Tourism is responsible for designing, coordinating, monitoring and evaluating the implementation of policy on tourism development. Its mission is to promote the integrated, orderly and harmonious development of tourism, by stimulating the growth of the sector, by improving the offer, through	The project will work with the ministry and its regional tourism offices to explore and develop ecotourism initiatives as a source of revenues for coastal communities and other local stakeholders.	The ministry has participated in all public consultation meetings. In formal discussions have been held in the regions.

Name	Mandate/responsibility	Relevance to project	Consultation in preparation
	a policy of training tourism professions.		
MPAE	MPAE is attached to the Presidency and its mission is to develop and implement national agricultural policy and livestock management. A priority is to ensure food security.	The ministry may support initiatives to generate local revenues for coastal communities.	MPAE has been invited to participate in all public consultation meetings.
SWIOFish2	SWIOFish2 is managed under the auspices of MRHP and it implements fisheries plans in selected administrative regions.	SWIOFish2 will collaborate closely at national level through collaborative planning and monitoring. The two child projects will coordinate action plans and monitoring where they overlap geographically at regional level.	SWIOFish2 has participated in the project's biodiversity planning process and all public consultations. It has met regularly with MEEF, SEMer and WWF to define collaboration mechanisms.
FAPBM	FAPBM supports PA development by providing grants to selected sites.	FAPBM will manage the child project financial arrangements under contract to the WWF-GEF Agency.	Regular meetings have been held with MEEF, SEMer, the WWF-GEF Agency and WWF-Madagascar to define the role of FAPBM and its contractual arrangements. It also managed the safeguards consultancy established for project planning and implementation.
Madagascar National Parks	The organization is responsible for several marine parks. It has its own internal policy and strategic plan. It is a stakeholder at both national and local levels.	The organization is a key stakeholder given the number of MPAs it manages.	Madagascar National Parks has been involved in the project's biodiversity planning process and all public consultations. It has also attended additional technical meetings with MEEF, SEMer and WWF. Consultation was also held at the Kirindy Mite National Park and Biosphere Reserve.
WCS	WCS has long invested in MPA and LMMA development. It helps to co-manage sites in Antongil Bay, the northwest in the Diana Region and in the Atsimo Andrefana Region in the southwest. It is planning to establish a new MPA in the extreme south. WCS has conducted several key research initiatives	WCS is a key contributor in project design and a potential operational partner at site level.	WCS has been involved in the project's biodiversity planning process and all public consultations. It has also participated in technical meetings organized by MEEF and SEMer together with direct consultations with the ministries or WWF involving project design.

Name	Mandate/responsibility	Relevance to project	Consultation in preparation
	related to biodiversity and/or MPA management.		
Blue Ventures	Blue Ventures has long invested in MPA and LMMA development. It helps to co-manage sites in the Melaky, Menabe, Diana and Atsimo Andrefana Regions. It is promoting the creation of the Barren Islands MPA. Blue Ventures has conducted several key research initiatives related to biodiversity and/or MPA management. It pioneered temporary and permanent fisheries reserves to increase productivity and generate improved revenues for local communities.	Blue Ventures is a key contributor in project design and a potential operational partner at site level.	Blue Ventures has been involved in the project's biodiversity planning process and all public consultations. It has also participated in technical meetings organized by MEEF and SEMer together with direct consultations with the ministries or WWF involving project design.
CI	CI has long invested in MPA and LMMA development. It co-manages an MPA in the Diana Region and is planning to increase its spatial coverage or, alternatively, establish a new MPA. CI has conducted several key research initiatives related to biodiversity and/or MPA management.	CI has contributed to project design and a potential operational partner at site level.	CI has been involved in the project's biodiversity planning process and all public consultations. It has also participated in technical meetings organized by MEEF and SEMer together with direct consultations with the ministries or WWF involving project design.
Asity (Birdlife national chapter)	Asity manages a coastal PA where it plans to extend spatial coverage to provide protection for marine habitats and species. It has also conducted species monitoring programs in several MPAs.	Asity has contributed to project design and a potential operational partner at site level.	Asity has been involved in the project's biodiversity planning process and all public consultations. It has also participated in technical meetings organized by MEEF and SEMer.
Durrell Wildlife	Durrell Wildlife Conservation Trust works in three PAs with marine sectors. It recently announced its interest in extending one of these sites to increase marine representation. It has also conducted species	Durrell may be an operational partner at site level.	Durrell has participated in the Prodoc validation consultation meeting and held several informal meetings with WWF.

Name	Mandate/responsibility	Relevance to project	Consultation in preparation
	monitoring exercises in several MPAs.		
Fanamby	Fanamby is a Malagasy NGO that promotes three PAs with significant marine coverage. It has long pioneered revenue-generating initiatives with local communities.	Fanamby may be an operational partner at site level.	Fanamby has been consulted during the course of project preparation.
WWF Madagascar	WWF has helped to establish several MPAs and LMMAs together with providing continued technical support. It has MPA/LMMA activities in the Diana, Sofia, Melaky, Menabe and Atsimo Andrefana Regions. WWF also a co-coordinator of the Northern Mozambique Channel Initiative. It will also provide a technical advisor to the child project.	WWF is a key contributor in project design and will provide technical advice in the project implementation phase.	WWF has supported MEEF and SEMer public consultation and technical meetings throughout the project preparation phase.
MIHARI	The MIHARI Platform brings together and represents the interests of numerous stakeholders with an interest in MPAs/ LMMAs, including government agencies and civil society groups. It has conducted initial analyses of options regarding LMMA legal status.	MIHARI is a critical stakeholder as it promotes the interests of many communities involved in MPA/LMMA development.	MIHARI has participated in project public consultation meeting together with small technical meetings involved in project design.

4.1.4 Local stakeholders

Four MPAs were visited during project preparation: Ambodivahibe Reserve, Nosy Hara National Park, Barren Islands Reserve (still in the creation process) and Kirindy Mite National Park. All of these sites have adjacent or integrated LMMAs. On-site consultations included open discussions about the MPA/LMMA including governance and management mechanisms. These exchanges involved site managers including community representatives, and additional local stakeholders including promoter NGOs. In all, more than 20 coastal communities were consulted. During the visits to the Barren Islands and Kirindy Mite, consultation with the regional administration, selected elected commune and village leaders, and CSOs working with coastal communities. In addition to these events, CSOs and CBOs working in the Menabe, Melaky and Diana Regions were briefed on the project objectives and strategies, followed by discussions and responses to questions.

In summary, the following common themes appeared during these local stakeholder consultations.

Local communities and traditional marine resource users
Several communities raised the issue of potential conflicts between sedentary fisher communities and migrant fishers who have traditionally navigated the coastal waters to follow fish movements or avoid seasonally rough sea conditions. It was noteworthy that Nosy Hara sedentary communities have worked with the fisheries department to establish management rules that allow migrant fishers to work in the park's designated adjoining fisheries zones. All fishers, residents and migrants alike, are issued fisheries permits by the department and must agree to local rules defined in collaboration with local communities. Similarly, community co-managers of Kirindy Mite explained that migrant fishers were allocated specific areas to camp during their seasonal sojourns in the national park. These and other proposals to regulate fisheries practices, no-go zones and temporary fishery zones were accepted by the migrants.

In general, community representatives recognized that they benefited from the natural resources in the MPAs and LMMAs. It was noted that some MPAs and LMMAs had measurably increased local revenues through improved resource management or additional revenue generating initiatives. When the creation of a new Biosphere Reserve was proposed with Kirindy Mite National Park at its core, local acceptance was forthcoming. There were a few, dissensions, however, as some fishers observed that their traditional fishing efforts were reduced because of new rules. All communities confirmed that they are active in co-managing the MPAs and LMMAs, taking part in surveillance measures.

Overall, communities were interested in the GEF MPA project, accepting that protecting habitats and species is required. Several community members believed that their traditional rights to marine resources were more effectively upheld than when no MPA or LMMA existed[12]. They were also interested in the proposed linkages between protection and sustainable development in favor of local interests. This acceptance may have arisen from knowledge of similar approaches that have been developed in other MPAs and LMMAs. In general, there was general consent that relations with permanent MPA staff were acceptable. The level of awareness among community members regarding MPA management strategies was not always clear and this may be an area to resolve in the future.

Given the brief nature of the site visits it was generally difficult to assess the level of gender equality and the level of participation of different social groups. This was discussed in greater detail when CBOs and their CSO/NGO partners from Menabe, Melaky and Diana met to discuss strategies to develop their capacity to effectively manage coastal resources and to strengthen the rights of local communities. The overall consensus was that gender and social equality must be a key component of the strategies, even though at first analysis they appeared to conflict with local traditional practices.

Conflicts with industrial fishing
Communities co-managing MPAs/LMMAs in Melaky and Menabe Regions expressed serious concern about industrial shrimp boats entering these protected sites. In particular, government and the industrial shrimp fisheries association have upheld maintaining a fishing corridor through the future reserve in contradiction to local community wishes to block it on the grounds that it damages marine habitats and competes with their traditional practices. Similar concerns have been reported in the press in other areas in Madagascar.

Madagascar National Parks staff
Consultations with full-time staff including the park director were held at Nosy Hara and Kirindy Mite. In both parks, staff noted difficulties in mitigating some persistent threats but observed that collaboration with local communities through a system of co-management was proving fruitful. Their relations with local authorities at regional, district, commune and village level were reported to be constructive.

[12] This is of some interest given that LMMAs are currently based on traditional agreements but have no other legal status.

Regional and local authorities
Consultations were organized primarily at regional and local level. The regions expressed their support for MPA and LMMA establishment as effective means to protect the environment and to manage marine resources. However, several people recommended that they be more fully involved at all stages of project development and implementation, given that they are responsible for regional development planning.

Relations at the village level were equally positive but again the recommendation to ensure that they are involved in planning and implementation was noted. Based on these observations and discussions with NGO/CSO promoters, it appears that a more inclusive approach be adopted in future projects, although the recent safeguards mission should help to mitigate this weakness. In addition, the consultants sensed that it may be strategically useful to increase participation at the commune level as they have their own respective development plans based on the regional strategy.

NGOs and CSOs
NGOs, mostly international, were the first to take advantage of the new governance and management opportunities that arose from the Durban Vision where experimentation at the site level and adoption of additional IUCN governance categories facilitated community-based management of MPAs and LMMAs. The role is progressively being assumed by Malagasy CSOs and CBO who have been developing alliances and platforms to strengthen the influence on decision makers. Consultations with these groups were held with NGO promoters at three MPAs (and associated LMMAs) and in the regional capitals of Menabe and Melaky where CSOs and CBOs are strongly present. Representatives of Malagasy CSOs and CBOs in these areas described how they have been and continue to be supported by international NGOs. As their capacity develops further they are willing to take a stronger leadership role in strategic planning and implementation of these strategies. In these two regions at least, the different civil society organizations including thematic alliances and platforms observe that they have good access to the regional, district and commune authorities. It is also the case regarding relations and cooperation with Madagascar National Parks. However, the NGOs, CSOs and CBOs have limited relations with the private sector: two exceptions are two community-managed ecotourism projects with local tourism businesses and a local association of guides. Both provided technical training at community level.

Community members and MPA/LMMA promoters report continued problems concerning mostly small-scale or opportunistic marine resources buyers who may not pay fair prices and/or encourage harvesting of illegal resources.

4.2 STAKEHOLDER ENGAGEMENT IN PROJECT IMPLEMENTATION

Existing key stakeholders will continue to be engaged through project implementation as described in Tables 8 and 9.

Additional stakeholders may be engaged based on the geographical sites selected and on specific tasks described in Component 1-3 of the project. Partners and their ongoing activities in the selected MPAs/LMMAs will be taken into account in the selection process. Special emphasis will be placed on encouraging sharing of key lessons learned, building on key successes, and developing mechanisms to ensure that these results benefit other sites that have not been selected as focal sites by the project.

Table 8 Engagement of national stakeholders in project implementation

Stakeholder	Role	Engagement approach
MEEF	Influential stakeholder	• MEEF will be in the project steering committee and will be regularly updated on project progress, barriers encountered and proposed solutions.
Sydney Promise Steering Committee	Influential stakeholder	• The Steering Committee coordinates all activities leading to achievement of Aichi Target 11 commitments and will therefore be consulted and informed appropriately.
MRHP/SWIOFish2	Influential stakeholder and program implementing partner.	• Regular exchanges, collaborative planning and monitoring will ensure that synergy between the child projects is optimized.
M2PATE	Influential partner regarding MPA/LMMA integration into marine development planning	• M2PATE will be consulted and informed concerning MPA/LMMA integration into MSP and related sustainable development planning processes.
NGOs and CSOs	Co-financing stakeholders and/or implementation partners	• Co-financing organizations will be engaged throughout project implementation. • Implementation will require grants to selected promoter NGOs/CSOs and/or those with other specialist skills such as petroleum development.
Donors	Co-financing stakeholders with similar objectives	• Knowledge and key lessons will be shared regularly.

Table 9 Engagement of local stakeholders in project implementation

Stakeholder	Role	Engagement approach (methods or activities)
Regional, commune and local authorities	Coordination or technical support at their respective levels	• Support to regional and local coordination planning. • Conflict resolution if required. • Knowledge and lessons sharing with key regional actors.
MPA/LMMA governance and management structures, including promoters	Coordination and mobilization at site level. Guidance and decisions at site level,	• Project implementation at site level. • Semi-annual reports on progress. • Technical reports and knowledge/lessons collation.
Local communities in target MPAs/LMMAs	May be directly involved in project activities but not part of the officially designated governance/management bodies, such as community based entrepreneurial groups.	• The Steering Committee coordinates all activities leading to achievement of Aichi Target 11 commitments and will therefore be consulted and informed appropriately.
Civil society organizations not directly involved in MPA/LMMA governance and management, such as specialist CSOs involved in gender equality, education or health	May be contracted to provide specific support to communities.	• Special thematic tasks. • Semi-annual meetings. • Technical reports.
Traditional leaders.	May be influential in encouraging communities to adopt innovative and more efficient practices.	• Regular dialogue with project staff.
Private sector	May enter into equitable development agreements involving sustainable use of natural resources.	• Meeting reports. • Technical reports. • Contracts with communities.

SECTION 5:ENVIRONMENT AND SOCIAL SAFEGUARDS

The Project is classified as a Category B for safeguard purposes. The project is essentially a conservation initiative, expected to generate positive and long-lasting social, economic and environmental benefits. Any anticipated impacts will be small scale, site-specific, and can be mitigated. There will be no large-scale, significant, or irreversible impacts.

The project is designed to contribute to sustainably managing Madagascar's marine resources and supports a co-management approach by communities (and other local stakeholders) and promoter NGOs. Through subgrants, NGOs and/or other partners support (promote in local terminology) the expansion process of LMMAs to MPAs while working closely with local community groups (community-based organizations (CBOs), to integrate their interest into site design and management practices.

The project is expected to have impacts on the coastal and marine environment, these impacts are expected to be mainly positive owing to the strengthening of improved management of marine resources exploitation therein. However, Component 1 of the project will include the process of expansion of LMMAs and MPAs and Component 3 will include, among other things, financing of essential infrastructure based on the site's management plans such as office space, weather stations and outlying observation posts, boundary marking, and equipment for patrolling and surveillance. These components may have potential negative impacts but small scale and site specific.

The project has prioritized activities in 4 zones: Antongil Bay in the northeast, the northern coastal areas, the centre-west and the southwest. However, the exact location of the project sites while be determined during implementation based on agreed criteria.

The project triggered the following safeguards policies as per the WWF's Environment and Social Safeguards Integrated Policies and Procedures (SIPP):

WWF's policy on Environment and Social Risk Management is triggered based on small scale and localized negative impacts stemming from small scale infrastructure however, the exact locations of the sites will only be determined during project implementation. During project preparation, an Environment and Social Management Framework was developed by MEEF/FAPPM to comply with WWF's Environment and Social SIPP. The final ESMF will be translated into French and all documentation generated as part of the process for this project will be publicly disclosed on the WWF US website and in country with the MEEF/FAPPM before WWF GEF Agency approval. The ESMF includes screening procedures for environmental and social impacts and outlining proposed mitigation measures, including (a) the Environmental Code of Practices for construction activities; (b) safeguards documentation preparation and clearance or sample of terms of reference for Environmental and Social Impact Assessments (ESIAs), if needed; (c) safeguards implementation, supervision, monitoring, and reporting; (d) institutional strengthening and capacity building programs; and (e) institutional arrangements and budget.

WWF's Policy on Natural Habitat is triggered as the project is expected to have impacts on the coastal and marine environment, though mainly positive owing to the support for improved management of the marine resources contained therein

The project does trigger WWF's Policy on Involuntary Resettlement. Although the project is not expected to involve any land acquisition leading to involuntary resettlement of affected persons, Component 1 includes the expansion or creation of MPAs and LMMAs. This may lead to access restrictions, be it seasonal, temporary, or permanent, and may provide some prospect for negative impacts on livelihoods for some individuals in some coastal communities, at least in the short term. Therefore, a Process Framework (PF) included in the ESMF has been developed and consulted upon to ensure that people's views and concerns are fully taken into consideration in the final project design. Public consultations were held, and the information will be disclosed, and a project specific grievance redress mechanism will be implemented as stated under the Process Framework. The PF includes institutional arrangements, capacity building, grievance redress mechanism, and an estimated budget for PF implementation.

No later than three months after the confirmation of the precise project activities and locations, the sub grantees will be responsible for consulting and confirming the design of socio-economic activities to address the socio-economic impacts on Project Affected Peoples (PAPs) in each of the project areas and to specifically identify vulnerable PAPs that would require special livelihoods restoration measures. The activity design along with the existing survey results will serve as benchmark for subsequent monitoring and evaluation activities. The impact of Project activities on PAPs should be monitored and evaluated on an annual basis throughout the duration of the project. The purpose of this audit will be to verify the implementation of mitigation measures specified in the PF.

In addition, annual public consultations with PAPs to inform them of the ongoing project activities, seek their views and discuss any unforeseen project impacts and/or outstanding implementation related matters

Institutionally, the PMU will include a Safeguards and Community Engagement officer who will coordinate and oversee the implementation of the ESMF and PF. The sub grantees will be responsible for site level implementation of the ESMF and PF. Training will be provided by the WWF GEF Agency Safeguards staff to the PMU staff especially the Project Coordinator who will have overall responsibility of compliance of the project activities with WWF SIPP and the Safeguards Community Engagement Officer who will work directly with the sub grantees, who will be responsible for day to day implementation of the measures outlined in the ESMF and PF. Reporting on the implementation of environmental and social safeguards provisions will be provided to the WWF GEF Agency as a part of the biannual progress reports. Safeguard compliance will be verified during WWF GEF Agency project supervision missions, which will include WWF GEF Agency Safeguards staff.

Grievance Redress Mechanism: Pursuant to the WWF Policy on Involuntary Resettlement and Process Framework requirement, the project will set up a and manage a grievance redress mechanism (GRM) to address PAP's grievances, complaints and suggestions. The GRM should be managed by the Safeguards and Community Engagement Officer in the PMU and will be regularly monitored by the PMU Coordinator. As the GRM system (as specified in the PF) will be specific to the project its active socialization will be important at both community level and with the national, provincial and local government including district and village level. The communication strategy should be developed to include purchasing of radio time to discuss the project, project impacts and the GRM system.

WWF's Policy on Indigenous People has not been triggered.

WWF's Policy on Pest Management has not been triggered.

SECTION 6: GENDER EQUALITY AND WOMEN'S EMPOWERMENT

Madagascar scores 0.948 in the Gender Development Index (GDI)[13]. This result indicates an average level regarding gender equality when compared to other countries at a global level. On average, women in Madagascar have a lower income per capita, the expected years of schooling for girls is slightly lower than for boys (10.2 versus 10.5) but their actual years spent in school is slightly higher (6.7 versus 6.1). Girl to boy parity is attained at primary school but at each successive level the proportion of girls and women declines progressively (INSTAT, 2013a, b). Primary school enrolment Women's share of seats in the legislature is low (20.5%)[14]. These average values for Madagascar mask differences between urban and rural populations. It is significantly more difficult for children in rural areas to receive quality education (Skjortnes & Zachariassen, 2010). Similarly, 60% of urban children graduate from primary school, but only 12% of rural children do so (Franken, 2009). However, there is some variation between regions (INSTAT, 2013a, b).

6.1 GENDER APPROACH OF THE PROJECT

6.1.1 Purpose of gender mainstreaming strategy

It is clearly recognized that understanding all project stakeholders, their culture and their aspirations is essential to achieving biodiversity conservation. The rise of LMMAs and emergence of now resource-based development initiative within MPAs attest to the close interrelationships between biodiversity health and strengthening livelihoods. This project is therefore designed and implemented so as to ensure that both women and men:

[13] http://hdr.undp.org/en/composite/GDI
[14] http://hdr.undp.org/en/composite/GII

a) Receive equitable social and economic benefits;
b) Do not suffer negative impacts at any stage of the project;
c) Recognize and agree to equitable management roles and responsibilities with respect to managing natural resources;
d) Have equal rights to participate in project development, implementation and decision-making processes
e) Have equal recourse to conflict management resources; and
f) Obtain full respect for their dignity and human rights.

The project will contribute to providing ecosystem goods and services to local populations where men and women depend on those benefits but access them in different ways. This diversity of use must be considered during project design, implementation, monitoring and evaluation. The importance of ensuring a gender equality approach is fully recognized where the roles of both women and men, their knowledge, skills and relationship with natural resources is included. The project meets WWF[15] and GEF gender-related polices and ensures that a gender perspective is fully incorporated, including gender equality considerations in all possible areas.

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6.1.2 Gender approach during project preparation

Two gender surveys were commissioned during project preparation, one in the Melaky and Menabe Regions and the second in the Diana Region in late 2017. These were carried out primarily for a project funded by WWF Sweden and the national development agency Sida. In all, 12 villages and their neighboring hamlets were involved in the surveys. The regional authorities, civil society groups and other regional actors were consulted. The overall goal of the survey was to identify gaps and solutions to women's participation in conservation, while also promoting more equitable management and utilization of natural resources by men and women. Specific objectives were to: collect gender-related information that would provide an understanding of the roles of women and men in the targeted areas; decision-making processes among men and women within their communities; access and management control with respect to natural resources and what the latter comprise.

The results show that there is considerable variation between communities in terms of what natural resources are used and for what purpose. They also show that both women and men in a given household share many activities, but women's specific responsibilities include education of the children, market gardening and small enterprises. Fishing is a good example: in some regions using fishing boats including pirogues is considered to be work for men because of the level of risks and general security in small boats, whereas women can be the principal gleaners in reef areas or crab collectors in mangroves. However, whether the men or the women are responsible for the catch, marketing and selling it is traditionally a woman's task. In such a case where both genders are involved in the same revenue-generating process, the monies are generally shared within the household. However, where only women are involved, such as in algaculture, the women generally retain control of the money. Farming seaweed for commercial markets is also largely the role of women. In general, many decision-making processes at the community level involve both men and women, although the latter showed a clear tendency to avoid participation in such public discussions for reasons related to cultural mores.

Each gender survey included recommendations for future interventions. These included strengthening capacity for gender mainstreaming within WWF and its partners, and to establish specific strategies and budgets for gender-related activities. They also proposed a series of M&E indicators to monitor gender mainstreaming over the coming years.

[15] http://assets.worldwildlife.org/publications/9/files/original/9_WWF_Gender_Policy.pdf?1342687922

The 2017 survey provide a useful baseline and a means to improve understanding of gender issues that may be encountered within coastal communities, traditional leadership systems and local authorities. However, it must be expanded upon during the implementation phase, to include new sites which will be determined at the onset of the project.

6.1.3 Gender approach during implementation

Gender equity and women's empowerment will be integrated into project components through the implementation period in line with WWF-GEF Agency requirements and government regulations. Gender analysis and action plan will be conducted in the first year of project execution and will identify specific recommendations and action points to ensure gender is mainstreamed throughout the project to the full extent possible. Much of the project's site-based investment will be implemented through sub-grants. All grantees will receive a short induction course providing project gender mainstreaming requirements based on the requirements noted above. The PMU will review and assess existing survey results that may have been previously conducted in project sites by grantees, to recommend further gender assessment if gaps are identified. Each grantee at each intervention site, where appropriate, will be required to conduct an assessment of gender issues and opportunities, as a means to clearly define a gender mainstreaming strategy/action plan with clear indicators. The PMU will ensure that grantees who perform a gender analysis have the required in-house capacity to accomplish this task and in cases where this capacity is not available, will require the hiring of a gender consultant, to ensure high quality data gathering and analysis. In some cases, grant recipients may have already conducted recent gender analyses at targeted sites. In such cases, the PMU and the WWF-GEF Agency gender specialists will assess their conformity to WWF-GEF Agency standards. The above requirements will guide actions aimed at promoting gender mainstreaming. The results will be evaluated by the grantees and the PMU periodically and measured to improve approaches as needed. As gender is strongly influenced by cultural and social factors, grantees will organize regular outreach and awareness events as a means to promote the advantages of gender equity. Grantees will reach out to individual women and women's community or entrepreneurial groups who are developing initiatives related to the project. With support from the PMU, the grant recipients will also ensure that their local partners including CSOs, CBOs and the private sector are fully aware of the project's gender policy requirements and organize targeted training as required. The PMU will be supported by WWF-GEF Agency gender experts who may be called upon to strengthen gender-mainstreaming capacity within the project partnership.

An additional provision will include gender sensitive stakeholder mapping with disaggregated analyses of gender differences with respect to roles and interests. Grantees will be expected to collect sex-disaggregated information on natural resources and develop gender-sensitive indicators as appropriate for the various project components.

As appropriate, management tools and infrastructures at site level will be assessed for gender equity. Similarly, knowledge management, monitoring and evaluation will be participative, integrating women into the process at all levels and specific gender and other social indicators (such as differences in cultural practices within and between communities).

Project investments in Outcome 2.1 will be tailored to ensure that gender issues and interests are integrated into analyses of existing regulatory frameworks pertaining to MPAs together with the resulting recommendations for strengthening them. A similar requirement will be exercised with respect to proposals for an LMMA regulatory framework.

The **PMU** will be responsible for promoting gender equity through the implementation phase and may call on the WWF-GEF Agency for additional support if needed. The **M&E officer** will be responsible for collecting and reporting sex-disaggregated indicators, and gender-related indicators as identified through the gender analysis and action plan for the various project sites and will report findings to the PMU coordinator for review

and decisions. Areas of adaptive management and recommendations to improve gender mainstreaming will also be communicated. The **Project Steering Committee** will evaluate and advise on recommendations related to gender and will provide overall guidance to ensure that gender mainstreaming is integrated into project implementation and adaptive management measures.

Table 10 is an initial list of entry points based on the project's components and will be verified/expanded upon by a gender specialist, according to the results in the gender analysis and action plan.

Table 10 Gender entry points by project component

Component	Gender entry points
C1	The main entry points include the development of the Aichi Target 11 strategy and action plan and, secondly, the proposed grants to be awarded to MPA/LMMA promoters applying to create new or extend existing sites. The strategy and action plan must be developed by mixed gender teams of experts, including individuals who work at site level and are well aware of gender challenges and opportunities. For the grant system, gender survey will be required and will be followed by regular on-site monitoring to track gender equality in project design and implementation.
C2	Updating MPA regulatory frameworks will be developed with the integration of a specific gender lens to ensure that proposed changes are gender sensitive and thus encourage gender fairness in the future. A similar approach is proposed in establishing a new legal and regulatory framework for LMMAs. In addition, strengthening awareness of the value of MPAs/LMMAs as a means to promote integration of these sites in MSP. A special analysis of gender equality with respect to gender in differences/opportunities related to natural resources use and social/economic development.
C3	Gender analyses will be integrated into grant proposals and implementation plans related to site infrastructures, management toolkits and training. In addition, gender equality will be critically important regarding new or improved economic opportunities that are explored and developed.
C4	Gender-disaggregated indicators have been developed together with specific gender-related indicators. M&E activities and learning approaches will be designed by mixed gender experts while M&E teams will comprise both genders. The knowledge and lessons learned during the project's implementation will be shared widely and will be reintegrated into ongoing activities that are supported.

SECTION 7:MONITORING AND EVALUATION

7.1 Project Staff Dedicated to M&E

The Project Management Unit (PMU) is responsible for ensuring the monitoring and evaluation activities are carried out in a timely and comprehensive manner, and for initiating and facilitating key monitoring and evaluation activities, such as the independent external evaluations at the midterm and end of the project. WWF staff within the PMU all serve various roles in project M&E.

Project Coordinator, PMU
The Project Coordinator is responsible for completing project progress reports and ensuring that the project M&E plan is implemented to WWF and GEF standards, on time to meet reporting deadlines and of highest possible quality. The PMU lead oversees the collaborative development of annual project work plans (with implementing partners) and their implementation, based on the reflections of the progress reports and M&E plans.

Planning, Monitoring & Evaluation Specialist, PMU
Under the guidance and supervision of the Program Coordinator, the Planning, Monitoring and Evaluation (PM&E) Specialist will be responsible for M&E activities including tracking project implementation against the project work plans, which will be implemented by a diverse group of partner organizations. This person will be responsible for consolidating, collecting and analyzing different data in relation to the project activities, outputs, and outcomes; maintaining the M&E plan and results framework of the project; and assisting the Project Coordinator in preparing semi-annual/annual reports on project progress. Through the collection and analysis of high quality and timely data inputs, the PM&E Specialist is responsible for ensuring that the project maintains its strategic vision and that its activities result in the achievement of its intended outputs and outcomes in a cost effective and timely manner. In addition, the PM&E Specialist is responsible for conducting an initial analysis that identifies potential opportunities for adaptive management and will seek feedback from the PMU and partners throughout the analysis.

Financial &Administration Officer, PMU
The Financial & Administration Officer is responsible for tracking the budget; facilitating financial transactions between GEF, WWF, and executing partners; and preparing and delivering the quarterly project-level financial reports included in the M&E plan.

Partners and subgrantees
The project partners and subgrantees will be directly responsible for collecting data for efficiency and cost savings. For example, when they hold trainings, they will be responsible for circulating a sign-up sheet and gathering disaggregated information, such as sex or indigenous group of participants. This will be delivered to the PM&E Specialist for their data consolidation.

Consultants
Certain indicators may require the use of hired external consultants to collect data in the field. For example, the use of surveys will most likely be led by consultant experts who are knowledgeable about collecting survey data. This will be managed and consolidated by the PM&E Specialist and Project Coordinator. Also, to conduct the MTE and TE, the project will hire an external consultant under supervision of PM&E Specialist and the Project Coordinator. The WWF GEF Agency will lead the recruitment process.

7.2 Commitment and approach to M&E

Developed in conjunction with major international environmental NGOs and endorsed by the WWF Network, the WWF Program and Project Management Standards lend consistency to planning, implementing, monitoring and reporting effective conservation projects and programs worldwide. The monitoring and evaluation (M&E) plan, known as the Results Framework, is designed to help project teams plan, execute, monitor and report progress towards expected results in a consistent and routine manner. Performance indicators have been selected with indicators and methodologies clearly defined to enable uniform data collection and analysis. The indicators will be in alignment where possible with Focal Area objectives and GEF Core Indicators. The frequency and schedule of data collection is defined for the project, as well as the roles and responsibilities of project team members. Please see the Results Framework for these details.

The monitoring and evaluation data will be captured and shared among the PMU and partners using Google drive. This will include a project Dashboard to help the adaptive management and learning process among the

PMU and project's partners. It will include the Results Framework, the Annual Work Plan and its quarterly progress monitoring system and other supporting documents.

The project team will analyze the data that is collected to determine whether their strategies are working or whether they need to reevaluate their strategies or theory of change. This is referred to as adaptive management and is core to the project's success. In support of this adaptive management approach, an annual exercise will be held (for instance, during project coordination committee meetings),[16]so that the project management unit and other relevant stakeholders can reflect on monitoring data and the validity of the project theory of change. See more on this below.

Project monitoring and evaluation (M&E) is a cornerstone of WWF GEF standards and is deeply embedded within the project.

7.3 Summary of Monitoring Activities and Reporting

7.3.1 Project Management Unit responsibilities

Project Results Framework

The Project Results Framework (Appendix 9) includes objectives, outcomes, and indicators for each; definition of indicators; methodology for data collection; responsible parties; frequency of data collection; baseline information; targets; monitoring cost; and assumptions. The monitoring of these indicators throughout the life of the project will be necessary to assess if the project has successfully achieved its expected results.

Annual Work Plan Tracking

Towards the end of each project year, the executing agency's PMU will work with project partners to develop a detailed Annual Work Plan and Budget (AWPB) that includes targets for key activities to achieve the outputs. When possible, the development of the annual work plan should take into account suggestions for adaptive management and lessons learned that result from the reflections workshop and which are reported in the biannual Project Progress Reports. The AWPB will be given a no-objection from the WWF GEF Agency, and endorsed by the Project Steering Committee prior to start of the next project year. Tracking against the AWPB targets will be reported on bi-annually, and the end of year tracking will contribute to the project's implementation progress rating.

Quarterly Financial Reports

The PMU Financial Coordinator will submit a financial progress report every 3 months using the WWF Network Standard financial reporting template. These reports will be delivered to the WWF-GEF Agency and the WWF-US Program Operations team and will include information on expenditures to date along with expected future expenditures and requests for disbursement to cover expected expenditures from the next quarter.

Semi-annual Project Progress Reports (PPRs)

The PMU will deliver a Project Progress Report to the WWF-GEF Agency every 6 months, using the WWF-GEF Project Progress Report (PPR) template. The PMU will receive data from partners and subgrantees reporting on project activities, challenges encountered, expenditures, lessons learned, and adaptive management applied in order to complete the report.

The report will include:

- Self-rating of project Development Objective (DO) and Implementation Progress (IP), and Risk using WWF-GEF rating criteria. Action plans for sub-optimal ratings. (Annual report only)

[16] Can be separate workshop or an exercise that is part of an existing meeting.

- Summary of project outcomes and impacts based on project monitoring and evaluation plan (including results framework in Appendix 5 plus tracking of output-level indicators) (Annual report)
- Challenges and strengths of the project
- Yearly progress of project based on approved annual work plan
- Exchange of lessons learned and opportunities for adaptive management
- Financial progress

GEF Tracking Tool and Core Indicators
The GEF tracking tool and Core Indicators measure progress in achieving the impacts and outcomes and their contribution to the GEBs. The GEF Tracking Tool will be phased out after CEO endorsement, therefore, the BD-1 tracking tool will only be measured at CEO endorsement. At that point, the project will be responsible for measuring against Core and sub-indicators at the midterm and end of the project.

Annual Adaptive Management Review
At the end of every year of the project, the PMU and other relevant partners will convene in an exercise that is intended to improve the strategic direction of the project. At each exercise, a review of the M&E data, project progress and challenges will occur, and the project theory of change will be assessed to decide whether or not any assumptions or strategies need modification. This will provide opportunities for adaptive management that will lead to changes in the project design, management or operation. The changes will be largely reflected and incorporated into the new Annual Work Plans. All modifications will be reviewed for no objection by the Project Steering Committee and the WWF GEF Agency.

Project Close Report
The Executing Agency and PMU will develop a project closeout report, using the WWF-GEF template. The report will outline the same areas as the PPRs, but will be cumulative for the whole project period, and will also include information on project equipment handover, an assessment of WWF GEF performance, an exit and sustainability plan, and will focus on key lessons from the project. This report is due within one month of project close.

7.3.2 WWF GEF Agency Responsibilities

Annual WWF-GEF Project Implementation Report (PIR)
In December[17] of each year, the WWF-GEF Agency will deliver to the GEF Secretariat an Annual Project Implementation Report (PIR), building off the semi-annual PPRs delivered by the PMU. The PIR includes general project information, implementation summary, results framework (tracking of high level M&E plan), ratings of GEF rating criteria, and financial status.

Annual WWF-GEF Monitoring Review (AMR)
In December of each year, the WWF-GEF Agency will send to the GEF Secretariat a Monitoring Review: an Excel document with ratings for every project in the WWF-GEF Agency's portfolio, including this project. The ratings will be determined by the WWF-GEF Agency in conjunction with the PMU.

Supervision Mission Reports
Annually the WWF-GEF Agency will conduct a support mission to discuss project progress with the PMU, key stakeholders and executing partners. The PMU will assist with organizing logistics for the support mission in communication and coordination with the WWF-GEF Agency, and the mission will serve to assist the WWF-GEF Agency in supervising project implementation and monitoring WWF Safeguard Policies in the project regions. The WWF-GEF Agency will develop a report for each annual mission, to which the PMU will respond and adapt its action plan.

Midterm Project Evaluation and Report

[17] May adjust depending on GEF Secretariat calendar.

An independent Midterm Project Evaluation will take place around the two-year mark of project implementation (i.e. midterm), providing an external evaluation of the project effectiveness and efficiency to date. This will be organized by the WWF GEF Agency in coordination with the PMU. It will provide recommendations to the project team on adaptive management that can be made to improve effectiveness and efficiency in the second half of the project term. The WWF-GEF Agency in collaboration with the PMU and the Program Steering Committee will provide a formal management answer to the findings and recommendations of the midterm evaluation.

Final Project Evaluation and Report
An independent Terminal Evaluation will take place within six months after project completion providing an external evaluation of the overall project effectiveness and efficiency. This will be organized by the WWF GEF Agency and coordinated with the PMU. It will provide recommendations for GEF and its agencies on future related projects and recommendations to the project team on achievement of the project impacts after completion of the project. The WWF-GEF Agency in collaboration with the PMU and the Program Steering Committee will provide a formal management answer to the findings and recommendations of the terminal evaluation.

The Terms of References for the midterm and terminal evaluations will be drafted by the WWF-GEF Agency in accordance with GEF requirements. The funding for the evaluations will come from the project budget.

7.3.3 Calendar of Monitoring Activities and Reporting Requirements

The timing of monitoring activities and reporting requirements is outlined in Table 11.

Table 11 Calendar of monitoring activities and reporting requirements

Year/ Month	1	2	3	4	5	6	7	8	9	10	11	12
Project Y1	TT	AAWP	QR	PSC		QR/ PPR	PSC		QR	PSC	AMR	QR/PPR/ DAWP PIR
Project Y2	PSC /ATPR /AAWP		QR	PSC		QR/ PPR	PSC		QR/ MTE	PSC	AMR	QR/PPR/ DAWP/ PIR
Project Y3	PSC /ATPR /AAWP		QR	PSC		QR/ PPR	PSC/ MTR/ GCI	MTE	QR	PSC	AMR	QR/PPR/ DAWP/ PIR
Project Y4	PSC /ATPR /AAWP		QR	PSC		QR/ PPR	PSC		QR	PSC	AMR	QR/PPR/ DAWP/ PIR
Project Y5	TR	TR	TR/ GCI	ATR		TE	TE	TE	TE			

AAWP – Approval of the Annual Work Plan by PSC
PSC – Quarterly Project Steering Committee Meeting
QR – Quarterly Project Report
PPR – Six-month and Annual WWF Project Progress Report
ATPR – Approval of Annual WWF Project Progress Report by PSC
PIR – Annual WWF-GEF Project Implementation Report to GEF Secretariat
MTR – Mid-Term Evaluation Report
TT – GEF Tracking Tool Report
CI- Core Indicator Report
MTE – Mid-Term Evaluation of the Project
AMR –Adaptive Management Review
TR- Terminal Evaluation Report
ATR – Approval of Terminal Project Report by PSC
TE – Terminal Evaluation of the Project

In order to enable the development of future replication and scaling-up plans, the PMU will promote a systematic approach in order to: (i) identify knowledge deemed to be relevant and valuable; (ii) capture and retain that knowledge; (iii) share that knowledge with key audiences; (iv) if possible, applying transferred knowledge during the project lifespan or designing guidelines for future replication and up-scaling; and (vi) assess the value or benefits of specific knowledge generated as a consequence of project interventions.

The Adaptive Management Review (reflection exercise) mentioned above will be key to improving the project success. Any lessons that come out of this exercise or otherwise will be categorized into relevant topic areas, such as capacity/performance, coordination among partners/stakeholders, specific technical issues, stakeholder engagement, gender equity, communications, etc. and will be assessed to determine their significance and how they could be addressed or shared.

Based on the most significant lessons learned, the project team will prepare a list of specific topics for future replication/scaling-up; identify key audiences; and finally select and prepare specific tools useful for knowledge sharing, replication and upscaling (e.g., proposals for policy or legal reforms; best practice manuals; workshops; case studies; technical reports; brochures; videos/tutorials; etc.).

7.3 Summary M&E budget

Monitoring and evaluation costs total US$795,382 (equivalent to approximately 13% of the total budget). Details on the M&E budget can be found in Section 8 of the ProDoc.

SECTION 8: PROJECT FINANCING AND BUDGET

8.1 GEF PROJECT BUDGET OVERVIEW

The project budget allocation for the MPA Child Project is $6,284,404, project co-financing is $35,630,379. FAPBM is the primary recipient of GEF funds and is responsible for the financial management of the project in coordination with MEEF.

TOTAL PROJECT						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	PROJECT TOTAL
PERSONNEL	85,795	423,182	181,868	136,643	115,075	942,563
THIRD PARTY FEES & EXPENSES	92,428	206,223	178,484	101,914	95,952	675,001
GRANTS & AGREEMENTS	93,528	2,026,498	610,619	558,889	404,574	3,694,108
TRAVEL, MEETINGS & WORKSHOPS	97,197	110,971	122,888	33,932	43,242	408,230
OTHER DIRECT COSTS	27,013	36,163	41,470	29,582	30,733	164,961
EQUIPMENT	91,938	229,478	78,125	-	-	399,541
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	487,899	3,032,515	1,213,454	860,960	689,576	6,284,404

COMPONENT 1: ESTABLISHING AN EXTENDED, REPRESENTATIVE AND SUSTAINABLE NETWORK OF COASTAL AND MARINE PROTECTED AREAS AND LMMAS						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	COMPONENT TOTAL
PERSONNEL	5,863	273,000	39,067	30,903	1,061	349,894
THIRD PARTY FEES & EXPENSES	4,535	96,685	31,825	29,146	307	162,498
GRANTS & AGREEMENTS	5,229	1,638,778	215,670	162,572	6,149	2,028,398
TRAVEL, MEETINGS & WORKSHOPS	23,234	18,180	4,074	4,278	4,125	53,891
OTHER DIRECT COSTS	3,393	3,563	4,236	3,928	4,125	19,245
EQUIPMENT	-	-	-	-	-	-
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	42,254	2,030,206	294,872	230,827	15,767	2,613,926

COMPONENT 2: BUILDING A ROBUST ENABLING ENVIRONMENT FOR MPAs/LMMAs						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	COMPONENT TOTAL
PERSONNEL	15,918	8,254	6,192	6,593	7,011	43,968
THIRD PARTY FEES & EXPENSES	40,077	18,042	1,874	1,951	2,032	63,976
GRANTS & AGREEMENTS	37,489	36,002	37,483	39,025	40,632	190,631
TRAVEL, MEETINGS & WORKSHOPS	2,312	-	-	-	-	2,312
OTHER DIRECT COSTS	495	-	-	-	-	495
EQUIPMENT	-	-	-	-	-	-
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	96,291	62,298	45,549	47,569	49,675	301,382

COMPONENT 3: ENHANCING MANAGEMENT EFFECTIVENESS AND CONTRIBUTIONS TO SUSTAINABLE DEVELOPMENT THROUGH MPAs AND LMMAs AT SITE LEVEL						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	COMPONENT TOTAL
PERSONNEL	6,065	103,290	89,673	56,472	54,329	309,829
THIRD PARTY FEES & EXPENSES	13,958	59,394	75,267	36,714	15,742	201,075
GRANTS & AGREEMENTS	12,672	313,184	313,717	314,271	314,848	1,268,692
TRAVEL, MEETINGS & WORKSHOPS	2,119	65,528	90,381	-	-	158,028
OTHER DIRECT COSTS	1,875	8,750	12,500	-	-	23,125
EQUIPMENT	-	229,478	78,125	-	-	307,603
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	36,689	779,624	659,663	407,457	384,919	2,268,352

COMPONENT 4: KNOWLEDGE MANAGEMENT, MONITORING AND EVALUATION						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	COMPONENT TOTAL
PERSONNEL	37,474	17,549	25,214	20,301	29,629	130,167
THIRD PARTY FEES & EXPENSES	31,811	30,055	67,471	32,056	75,824	237,217
GRANTS & AGREEMENTS	38,138	38,534	43,749	43,021	42,945	206,387
TRAVEL, MEETINGS & WORKSHOPS	60,932	18,405	19,309	20,257	29,439	148,342
OTHER DIRECT COSTS	8,031	8,432	8,854	9,297	9,761	44,375
EQUIPMENT	35,000	-	-	-	-	35,000
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	211,386	112,975	164,597	124,932	187,598	801,488

COMPONENT 5: Program Management						
CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	COMPONENT TOTAL
PERSONNEL	20,475	21,089	21,722	22,374	23,045	108,705
THIRD PARTY FEES & EXPENSES	2,047	2,047	2,047	2,047	2,047	10,235
GRANTS & AGREEMENTS	-	-	-	-	-	-
TRAVEL, MEETINGS & WORKSHOPS	8,600	8,858	9,124	9,397	9,678	45,657
OTHER DIRECT COSTS	13,219	15,418	15,880	16,357	16,847	77,721
EQUIPMENT	56,938	-	-	-	-	56,938
ADMINISTRATIVE COSTS	-	-	-	-	-	-
TOTAL PROJECT COSTS	101,279	47,412	48,773	50,175	51,617	299,256

ANNUAL BUDGET SUMMARY
by Outcome and Output

CATEGORY	PROJECT TOTAL	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
COMPONENT 1: ESTABLISHING AN EXTENDED, REPRESENTATIVE AND SUSTAINABLE NETWORK OF COASTAL AND MARINE PROTECTED AREAS AND LMMAS	**$ 2,613,925**	**$ 42,254**	**$ 2,030,206**	**$ 294,872**	**$ 230,826**	**$ 15,766**
Outcome 1.1. Aichi Target 11 implementation strategy and action plan for the Madagascar marine and coastal environment developed based on best available science.	**$ 99,042**	**$ 35,468**	**$ 63,575**	**$ -**	**$ -**	**$ -**
Output 1.1.1 New KBA maps and accompanying documentation identifying priority areas for expansion, and which represent major marine and coastal ecosystems and global threatened species' conservation needs.	$ 23,799	$ 23,799	$ -	$ -	$ -	$ -
Output 1.1.2 Report to define LMMA/OECM eligibility criteria to contribute to Aichi Target 11.	$ 11,668	$ 11,668	$ -	$ -	$ -	$ -
Output 1.1.3 Catalogue of eligible LMMAs/OECMs directly contributing to Aichi Target 11 based on Output 1.1.2 .	$ 4,009	$ -	$ 4,009	$ -	$ -	$ -
Output 1.1.4 Action plan to achieve Aichi Target 11 for the marine environment, identifying partner roles and contributions, and integrating multi-sectoral interests.	$ 59,566	$ -	$ 59,566	$ -	$ -	$ -
Outcome 1.2 Proposals for new MPAs/LMMAs or extension of existing ones, covering >1,000,000 ha submitted to government for gazettement in areas that capture key biodiversity and habitats of threatened species, based on the action plan.	**$ 2,514,883**	**$ -**	**$ 1,997,006**	**$ 287,390**	**$ 222,970**	**$ 7,517**
Output 1.2.1. Operational partners and proposed MPA/expansion sites selected.	$ 1,210	$ -	$ 1,210	$ -	$ -	$ -
Output 1.2.2 Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement	$ 2,511,857	$ -	$ 1,995,412	$ 286,384	$ 222,544	$ 7,517
Output 1.2.3 Gazettement proposals submitted by MEEF to government for full approval by Council of Ministers	$ 1,816	$ -	$ 384	$ 1,006	$ 426	$ -
COMPONENT 2: BUILDING A ROBUST ENABLING ENVIRONMENT FOR MPAs/LMMAs	**$ 301,382**	**$ 96,291**	**$ 62,298**	**$ 45,549**	**$ 47,570**	**$ 49,675**
Outcome 2.1. Improved regulatory framework to address specific MPA and LMMA needs including streamlined creation procedures, governance and management regimes, user rights and contribution to sustainable development.	**$ 43,762**	**$ 31,806**	**$ 11,956**	**$ -**	**$ -**	**$ -**
Output 2.1.1 Review of existing regulatory framework and gap analysis.	$ 33,914	$ 21,957	$ 11,956	$ -	$ -	$ -
Output 2.1.2 Recommendations and draft regulatory text submitted to appropriate level of government by MEEF	$ 9,849	$ 9,849	$ -	$ -	$ -	$ -
Outcome 2.2. Increase MEEF capacity to defend and promote MPAs and LMMAs for sustainable development., e.g. incorporation of MPAs/LMMAs in multi-sectoral MSP	**$ 257,620**	**$ 64,485**	**$ 50,342**	**$ 45,549**	**$ 47,570**	**$ 49,675**
Output 2.2.1 Assessment of the economic and social benefits of MPAs for justifying MPA/LMMA role in MSP.	$ 257,620	$ 64,485	$ 50,342	$ 45,549	$ 47,570	$ 49,675

COMPONENT 3: ENHANCING MANAGEMENT EFFECTIVENESS AND CONTRIBUTIONS TO SUSTAINABLE DEVELOPMENT THROUGH MPAs AND LMMAs AT SITE LEVEL	**$ 2,268,354**	**$ 36,689**	**$ 779,624**	**$ 659,664**	**$ 407,457**	**$ 384,920**
Outcome 3.1. Expanded options for increased, diversified, and environmentally sustainable revenue sources for improved living conditions of coastal communities.	**$ 1,702,744**	**$ -**	**$ 462,869**	**$ 447,497**	**$ 407,457**	**$ 384,920**
Output 3.1.1. Selection criteria for demonstration sites, eligible activities, and operational partners approved by Project Steering Committee.	$ 39,798	$ -	$ 39,798	$ -	$ -	$ -
Output 3.1.2 Sub-grants issued to selected promoters/sites for improved community revenue generation, site level cost recovery for management activities, and for strengthened management effectiveness.	$ 1,511,779	$ -	$ 370,766	$ 374,058	$ 382,035	$ 384,920
Output 3.1.3. Mechanisms to increase community/other local stakeholder revenues developed through promoter support and private sector partnerships (where appropriate).	$ 120,120	$ -	$ 52,305	$ 42,393	$ 25,423	$ -
Outcome 3.2 Increased revenue to cover operational costs at MPA & LMMAs site level.	**$ 15,523**	**$ -**	**$ -**	**$ 15,523**	**$ -**	**$ -**
Output 3.2.1 Agreements with communities brokered to reinvest a percentage of revenues in MPA/LMMA operational costs.	$ 15,523	$ -	$ -	$ 15,523	$ -	$ -
Outcome 3.3. Enhanced management effectiveness of selected demonstration MPA and LMMA sites.	**$ 581,134**	**$ 36,689**	**$ 316,755**	**$ 227,690**	**$ -**	**$ -**
Output 3.3.1 Essential infrastructures in place. • Support management infrastructure development and essential equipment based on the site's management plan	$ 380,932	$ -	$ 283,495	$ 97,437	$ -	$ -
Output 3.3.2 Standardized MPA/LMMA management toolkits developed and propagated in place.	$ 146,121	$ 36,689	$ 33,260	$ 76,172	$ -	$ -
Output 3.3.3 Training program to support and replicate management effectiveness measures established and operational.	$ 54,080	$ -	$ -	$ 54,080	$ -	$ -
COMPONENT 4: KNOWLEDGE MANAGEMENT, MONITORING AND EVALUATION	**$ 801,485**	**$ 211,385**	**$ 112,975**	**$ 164,597**	**$ 124,931**	**$ 187,598**
Outcome 4.1 M&E plan finalized with on-time data collection, reflection and reporting to inform adaptive management and ensure delivery of project results.	**$ 305,984**	**$ 155,873**	**$ 37,844**	**$ 34,342**	**$ 42,241**	**$ 35,684**
Output 4.1.1. MM&E system established, with roles and methods defined	$ 58,720	$ 58,720	$ -	$ -	$ -	$ -
Output 4.1.2. Implementation of the Project M&E Plan and subsequent review of project management approaches and strategies.	$ 247,264	$ 97,153	$ 37,844	$ 34,342	$ 42,241	$ 35,684
Outcome 4.2. M&E data, lessons learned, and best practices are transparent, participatory and shared with relevant stakeholders to contribute to knowledge management.	**$ 489,204**	**$ 54,417**	**$ 73,136**	**$ 129,160**	**$ 81,594**	**$ 150,897**
Output 4.2.1. Compilation of Best Practices and Lessons distributed to relevant local, national and regional bodies for review and replication as required.	$ 123,425	$ 17,204	$ 23,297	$ 21,146	$ 26,005	$ 35,774
Output 4.2.2 Collected and analysed data (including progress reports and results frameworks) shared with relevant stakeholders.	$ 356,978	$ 35,711	$ 47,893	$ 106,435	$ 53,459	$ 113,480
Output 4.2.3 Communications plan developed and implemented.	$ 8,801	$ 1,502	$ 1,946	$ 1,579	$ 2,131	$ 1,643
COMPONENT 5: Program Management	**$ 299,257**	**$ 101,278**	**$ 47,412**	**$ 48,773**	**$ 50,175**	**$ 51,618**
TOTAL PROJECT COSTS	$ 6,284,404	$ 487,898	$ 3,032,515	$ 1,213,455	$ 860,959	$ 689,577

8.2 PROJECT BUDGET NOTES

8.2.1 Staffing

Table 12 Project Staff

Position Title	Summary of responsibilities	Average Annual % time	Average annual Budget	Total Project Budget	Responsible
Project Management Costs (PMC)					
Project Coordinator	Coordinate and monitor the implementation of activities with the stakeholders	100%	$2,867	14,335	MEEF
Marine ecologist	Ensure the integration of sound scientific elements (ecological and biological aspects) in all approach developed along all the components.	100%	$2,469	$12,344	MEEF
MPA management expert	Ensure compliance of the MPA creation and development with international standards and Conventions.	100%	$2,469	$12,344	MEEF
Expert on legal and regulatory aspects of MPA/LMMAs	Ensure the coherence, complementarity and compliance of legal aspects and regulations related to MPAs/LMMAs to existing laws (Protected Areas Act or COAP, Aquaculture & Fisheries Code)	100%	$2,469	$12,344	MEEF
Planning, Monitoring and Evaluation officer	Ensure the monitoring and evaluation of the project in compliance with GEF Agency and ProDoc requirements	100%	$2,469	$12,344	MEEF
Communications officer	Ensure effective communication of the Project objectives and achievements	100%	$2,469	$12,344	MEEF
Finance and Administration officer	Ensure that the financial and administrative management standards and requirements are met in all financial transactions and operations related to the project.	100%	$2,469	$12,344	MEEF
Safeguards and Community Engagement Officer	Ensure that safeguards measures identified are implemented	100%	$2,469	$12,344	MEEF
Driver1	Drive vehicle for official internal travel and missions. Plays the role of messenger for the project.	100%	$1,593	$7,964	MEEF

Position Title	Summary of responsibilities	Average Annual % time	Average annual Budget	Total Project Budget	Responsible
TOTAL PROJECT MANAGEMENT COSTS (PMC)			$21,741	$108,705	
Monitoring and Evaluation					
Madagascar Protected Areas & Biodiversity Foundation - FAPBM	The foundation ensures the management of all financial flows related to the project	15%	$23,077	$115,386	FAPBM
National Project Director	The overall supervisor of the implementation of the project and ensure liaison with the GEF Agency	20%	$597	$2,984	MEEF
National Project Director Deputy	Assist the National Project Director to ensure effective coordination/collaboration and supervision.	25%	$741	$3,703	MEEF
Driver2	Drive vehicle for official internal travel and missions dedicated to M&E interventions.	100%	$1,658	$8,288	MEEF
FAPBM	The foundation ensures the management of all financial flows related to the project	15%	$23,077	$115,386	FAPBM
TOTAL MONITORING AND EVALUATION			$26,072	$130,361	
Component 1					
FAPBM	The foundation ensures the management of all financial flows related to the project	15%	$70,022	$350,111	FAPBM
TOTAL COMONENT 1			$70,022	$350,111	
Component 2					
FAPBM	The foundation ensures the management of all financial flows related to the project	15%	$8,808	$44,042	FAPBM
TOTAL COMPONENT 2			$8,808	$44,042	
COMPONET 3					
FAPBM	The foundation ensures the management of all financial flows related to the project	15%	$62,033	$310,166	FAPBM
TOTAL COMPONENT 3			$62,033	$310,166	

8.2.2 Third Party Fees and Expenses

Table 13 Third Party Fees and Expenses

Consultant Expertise	Summary of responsibilities	Project Year/s	Average annual Budget	Total Project Budget	Responsible
Project Management Costs (PMC)					
Adaptive Management	Budget allocation for costs associated with adaptive management.	All years	$2,047	$10,236	FAPBM
TOTAL PROJECT MANAGEMENT COSTS (PMC)			$2,047	$10,236	
Monitoring and Evaluation (Component 4)					
Adaptive Management	Budget allocation for costs associated with adaptive management.	All years	$7,736	$38,678	FAPBM
Translator	Translate Briefing Reports on Best Practices and Lessons	All years	$1,500	$7,500	FAPBM
External auditor	The audit firm performs annual project audit to review reports and expenditures	All years	$23,208	$116,038	FAPBM
Technical Evaluation - Mid term	The consultant / firm ensures project mid term evaluation in the middle of Year 3	Year 3	$35,000	$35,000	GEF
External evaluator	The technical evaluation will be done after the completion of the project	Year 5	$40,000	$40,000	GEF
TOTAL MONITORING AND EVALUATION				$237,216	
Component 1					
Adaptive Management	Budget allocation for costs associated with adaptive management.	All years	$21,562	$107,811	FAPBM
Consultancy to do mapping and documentation.	To develop KBA maps documentation identifying priority areas for expansion	Year 1	$3,125	$3,125	FAPBM
Specialist to develop catalogue of eligible LMMAs/OECMs	To establish list and description (Catalogue) of eligible LMMAs/OECMs directly contributing to Aichi Target 11	Year 2	$1,563	$1,563	FAPBM
Safeguards measures	To improve decision making and ensure that the activities under the proposed project are environmentally and socially sound and sustainable.	Year 2,3,4	$16,667	$50,000	FAPBM
TOTAL COMPONENT 1			$32,500	$162,499	
Component 2					
Adaptive Management	Budget allocation for costs associated with adaptive management.	All years	$2,452	$12,258	FAPBM

Consultants to review existing PA legislation and to identify key MPA gaps and needs	To ensure that the existing PA regulatory framework be adapted to the specific needs of MPA/LMMAs governance and management.	Years 1 and 2	$5,938	$11,875	FAPBM
Consultant to draft regulatory texts	To develop regulatory texts to streamline MPA creation process in order to reduce complexity and cost, and to clarify the roles and responsibilities of local rights holders with respect to MPA and natural resources management.	Year 1	$2,344	$2,344	FAPBM
Expert to propose a strategy and action plan for MPA/LMMA integration into marine spatial planning.	Develop strategy and action plan to defend and promote MPAs and LMMAs as sustainable development tools fulfilling the blue economy concept.	Years 1 and 2	$18,750	$37,500	FAPBM
TOTAL COMPONENT 2			$12,795	$63,977	
COMPONET 3					
Adaptive Management	Budget allocation for costs associated with adaptive management.	All years	$18,653	$93,263	FAPBM
Consultant to help sub-grantees to broker equitable agreements	To ensure development of projects based on community, private sector and donor/investor interests to strengthen or create new value chains	Year 2	$12,500	$12,500	FAPBM
Consultant to help promoters and other partners to implement plans	To develop plans ensuring the integration of local stakeholder participation in new and/or enhanced value chains development.	Year 3	$6,250	$6,250	FAPBM
Consultant to help promoters to negotiate and test site-level cost recovery mechanism	To provide voluntary cost recovery from increased local revenues as a means to finance routine management activities	Year 3	$12,500	$12,500	FAPBM
Consultant for toolkits	To identify, develop and deploy appropriate management toolkits well adapted to local conditions and to enhance management effectiveness.	Year 1	$6,250	$6,250	FAPBM

Support development of a METT equivalent for LMMAs through MIHARI consultant	To develop a METT equivalent tools adapted to community-based marine resources management process.	Year 3	$4,688	$4,688	FAPBM
Consultant to translate toolkit operational guidelines	To ensure toolkit operational guidelines to be implemented in appropriate language.	Year 1	$6,250	$6,250	FAPBM
Consultant for ecological monitoring for MPA/LMMA managers.	To develop an effective and appropriate ecological monitoring mechanism addressing and responding to MPAs/LMMAs managers needs and decisions to be taken.	Year 3	$4,688	$4,688	FAPBM
Consultant to identify local training needs and priorities	To develop training framework in the use of standard management toolkit based on assessments and needs	Year 3	$4,688	$4,688	FAPBM
Safeguards measures	To improve decision making and ensure that the activities under the proposed project are environmentally and socially sound and sustainable.	Year 2,3,4	$16,667	$50,000	FAPBM
TOTAL COMPONENT 3			$40,215	$201,076	

8.2.3 Grants and Agreements

Table 14 Sub recipient summary

Partner Name	Total sub-recipient Budget
Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement	$2,000,000
WWF MDCO	$494,107
Sub-grants with operational partners in selected sites	$1,200,000
Sub Total Sub Grants	**$3,694,107**

Table 15 Grants

Name of Partner	Purpose	Location	Total	Responsible
Monitoring and Evaluation				
WWF MDCO	WWF MDCO provides technical assistance and management support to	Headquarter (Antananarivo)	$206,386	WWF MDCO

	the MEEF in the implementation of the project.			
TOTAL MONITORING AND EVALUATION			$206,386	
Component 1				
Operational partners	Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement	in the 5 sites (which are not yet selected	$2,000,000	FAPBM
WWF MDCO	WWF MDCO provides technical assistance and management support to the MEEF in the implementation of the project.	Headquarter (Antananarivo)	$28,398	WWF MDCO
TOTAL COMPONENT 1			$2,028,398	
Component 2				
WWF MDCO	WWF MDCO provides technical assistance and management support to the MEEF in the implementation of the project.	Headquarter (Antananarivo)	$190,631	WWF MDCO
TOTAL COMPONENT 2			$190,631	
	COMPONET 3			
WWF MDCO	WWF MDCO provides technical assistance and management support to the MEEF in the implementation of the project.	Headquarter (Antananarivo)	$68,692	WWF MDCO
Operational partners	Sub-grants with operational partners in selected sites	in the 5 sites (which are not yet selected	$1,200,000	FAPBM
TOTAL COMPONENT 3			$1,268,692	

8.2.4. Travel

Table 16 Travel

International or Local (state the Destination if known)	Purpose of Travel	Total number of Trips	Total Project Costs	Responsible
Project Management Costs (PMC)				
International Travel	Attend one international meeting a year during one week for an international event (such as workshop, training or meeting) linked to the project objectives.	5 trips (1 trip for one person each year)	$17,786	MEEF
Coordination	Missions of 3 PMU members for one week a year in the 5 zones for coordination and supervision.	75 trips (1 trip of one week in 5 zones for 3 persons each year)	$27,873	MEEF
TOTAL PROJECT MANAGEMENT COSTS (PMC)			$45,659	
Monitoring and Evaluation				

International fora	Presentation of Best Practices and Lessons at appropriate international fora (e.g. Annual Consultative Meeting on Large Marine Ecosystems and Coastal Partners, World Parks Congress, etc.).	10 trips (1 trip for 2 persons each year)	$37,022	MEEF
Training of field staff on data collection methods and responsibilities	PMU trains field staff on data collection methods and responsibilities.	75 trips (1 trip in 5 zones for 1 day each of 3 persons per year)	$9,081	MEEF
M&E Officer undergoes monitoring visits at site level as appropriate	Implementation of the Project M&E Plan and subsequent review of project management	250 trips (10 days x 5 zones x 5 years)	$20,000	MEEF
TOTAL MONITORING AND EVALUATION			$66,103	
COMPONET 3				
Meetings with operational partners and stakeholders to propose criteria.	PMU organizes meetings with operational partners and stakeholders to propose criteria.	5 trips (1 trip of 3 days in the 5 sites in year 2)	$4,688	MEEF
Consult promoters to define priorities for strengthening management effectiveness	PMU specialist to consult with promoters to define priorities for strengthening management effectiveness	5 trips (1 trip of 10 days in the 5 sites in year 2)	$15,625	MEEF
Set site-level baselines using METT scores	Set site-level baselines using METT scores for all PAs	15 trips (3 trips of 4 days for 5 sites in year3 for 4 persons)	$18,750	MEEF
Support development of a METT equivalent for LMMAs	Travels of PMU to support development of a METT equivalent for LMMAs with Mihari	5 trips (1 trip of 5 days in the 5 sites in year 2)	$7,813	MEEF
Identify local training needs and priorities	Identify local training needs and priorities through on-site assessments and workshops, paying special attention to equitable gender and broader stakeholder access	15 trips (3 trips of 4 days for 5 sites in year 3 for 3 persons)	$14,063	MEEF
TOTAL COMPONENT 3			$60,938	

8.2.5. Workshops and meeting

Table 17 Workshops and Meetings

Location	Describe who will be participating and the estimated number of participants.	Purpose of workshop (include number of workshops planned	Total Project Costs	Responsible
Monitoring and Evaluation				
National inception workshop	100 participants (with all the stakeholders: PMU, Steering committee members, WWF, MEEF, SEMER, 5 sites representatives, SWIOFISH etc)	1 inception workshop of 1 day in Antananarivo	$6,688	MEEF

Regional inception workshop	40 participants (PMU, Regions, MEEF, SEMER, local authorities)	1 inception workshop of 1 day in the 5 sites	$29,313	MEEF
Reflection workshop to review inputs and feedback from M&E plan	30 participants: 20 from Antananarivo and 10 from sites.	1 workshop of 2 days in year 2	$7,388	MEEF
Project Steering Committee Meetings	40 participants (all government departments involved in marine issues (eg: maritime transport, fisheries, tourism, environment, land use planning, oil & gas, etc.), marine conservation NGOs (WWF, WCS, Blue Ventures), some private sector in the fisheries industry and the platform of Locally-Managed Marine Areas (LMMAs) managers MIHARI. SEMER.	1 day meeting in the 5 sites per year	$26,350	MEEF
Closeout workshop	100 participants (with all the stakeholders: PMU, Steering committee members, WWF, MEEF, SEMER, 5 sites representatives, SWIOFISH etc)	1 workshop of 1 day in year 5 in Antananarivo	$8,188	MEEF
TOTAL MONITORING AND EVALUATION			$77,925	
Component 1				
Experts' workshop organized by MEEF to re-evaluate existing marine/coastal KBA proposals	60 participants (experts in Tana, IHSM, CNRO, international experts)	1 workshop of 1 day in year 1 in Antananarivo	$11,650	MEEF
Sydney Promise Committee presents analysis for government approval Council of Ministers for government approbation.	25 persons (all government departments involved in marine issues (eg: maritime transport, fisheries, tourism, environment, land use planning, oil & gas, etc.), marine conservation NGOs (WWF, WCS, Blue Ventures), some private sector in the fisheries industry and the platform of Locally-Managed Marine Areas (LMMAs) managers MIHARI. SEMER)	1 meeting of 1 day	$641	MEEF
Review LMMA/OECM eligibility and conservation role with respect to Aichi Target 11	50 participants.	1 meeting of 2 days	$2,500	MEEF
With LMMA stakeholders to develop criteria to be proposed to Sydney Promise Steering Committee.	50 persons (LMMA stakeholders, 4 from the sites)	1 meeting of 2 days	$5,050	MEEF
With LMMA/OECM promoters to define sites eligible for direct contribution to Aichi Target 11	50 persons (LMMA/OECM promoters)	1 meeting of 2 days	$1,750	MEEF

Participative workshops at national and priority intervention area levels to define Aichi Target 11 action plan	30 participants (for national workshop, 5 participants from the sites)	5 workshops (4 regionals and 1 national)	$11,550	MEEF
Promotional activities to disseminate Madagascar Aichi Target action plan	PMU participates to local events for promotional activities	20 meetings	$18,750	MEEF
Sydney Steering Committee and /or SAPM Commission meetings to identify site selection and operational partner criteria	50 participants (Sydney Steering Committee and SAPM Commission to identify site selection and operational partner criteria for MPA/LMMA creation/extension sub-grants)	1 meeting of 1 day	$1,000	MEEF
SAPM commission validation meetings	50 participants (Sydney Steering Committee and SAPM Commission to approve site selection and operational partner criteria for MPA/LMMA creation/extension sub-grants)	1 meeting of 1 day	$1,000	MEEF
TOTAL COMPONENT 1			$53,890	
Component 2				
Workshops and meetings to develop recommendations	30 participants - PMU to organize meetings to develop recommendations and submit them to Sydney Promise Steering Committee for initial review and approval.	1 meeting of 2 days	$1,156	MEEF
Workshops with other government agencies to revitalize existing intersectoral commissions	30 participants - MEEF to organize workshops with other government agencies to revitalize existing intersectoral commissions and to seek solutions to reduce intersectoral conflict	1 meeting of 2 days	$1,156	MEEF
TOTAL COMPONENT 2			$2,312	
COMPONET 3				
Meeting to develop criteria for site and implementing partner selection	15 persons (PMU and Sydney Promise Steering Committee members, operational partners, stakeholders and senior consultant)	1 meeting of 3 days	$3,603	MEEF
Present recommendations for criteria to Sydney Promise Steering Committee.	30 participants (PMU and Sydney Promise Steering Committee, operational partners, stakeholders and senior consultant) - including mission fees of 10 participants from the sites for 15 days to participate in the development of the recommendations.	1 meeting of 1 day for the presentation and 15 days (3 days by 5 sites) to develop recommendations	$20,725	MEEF
Sharing information to potential partners	40 persons	1 meeting of 1 day.	$706	MEEF
Workshop training to build entrepreneurial and cooperative management skills among CBOs.	25 participants	2 workshops of 5 days	$7,813	MEEF
Workshop and consultations: identify	40 persons (Through workshop and consultations, identify and adaptation	3 meetings of 1 day.	$2,119	MEEF

and adaptation measures needed for existing tools	measures needed for existing tools including gender considerations, while also formulating effective gender sensitive approaches.)			
Set site-level baselines using METT scores	40 persons (3 time in 5 sites for baselines using METT scores)	1 meeting of 1 day per site	$10,594	MEEF
Support development of a METT equivalent for LMMAs	40 persons (development of the METT 1 time in 5 sites)	1 meeting of 1 day per site	$3,531	MEEF
Ecological monitoring training and operational support for MPA/LMMA managers.	6 persons (Develop and support standardized protocols for ecological monitoring, fisheries, household revenues, and infrastructures)	1 meeting x 5 sites x 6 days x 6 persons	$20,756	MEEF
Workshops to share lessons learned about successful revenue generating approaches	40 persons (3 time in the 5 sites)	1 meeting of 1 day per site	$10,594	MEEF
Training for MEEF and SEMer in MPA/LMMA management effectiveness toolkit use	40 persons (including 10 participants from regions)	1 meeting of 3 days	$8,838	MEEF
Exchange visits to share lessons learned about successful revenue generating approaches	25 participants	2 workshops of 5 days	$7,813	MEEF
Annual update of stakeholder	100 participants	1 day annual workshop	$4,314	MEEF
TOTAL COMPONENT 3			$101,404	

8.2.6 Equipment

Table 18 Equipment

Equipment Budgeted	Project Justification for equipment	Location	Total Costs	Responsible
Project Management Costs (PMC)				
4x4	For the implementation of the activities, buying a car is an economic decision if compared to the cost of renting car for the project life. It is also safe & very useful and can benefit the sites and PA after the 5 years of the project.	Antananarivo (project headquarter office)	$35,000	FAPBM
Office equipment	Table, chairs, laptop, printer, camera, armoire, phone for the PMU.	Antananarivo (project headquarter office)	$21,938	FAPBM
TOTAL PROJECT MANAGEMENT COSTS (PMC)			$56,938	
Monitoring and Evaluation				
4x4	This vehicle is dedicated to the M&E interventions (technical than financial). Many interventions are planned in the sites and it is economically profitable to have a vehicle instead of renting cars regularly. In addition to that, the security of the project staff and for	Antananarivo (project headquarter office)	$35,000	FAPBM

	the continuation of the actions in long term at sites level.			
TOTAL MONITORING AND EVALUATION			$35,000	
COMPONET 3				
Boat	Equipment for patrolling and surveillance	At sites level	$78,125	FAPBM
Outboard motor and accessories	Equipment for patrolling and surveillance	At sites level	$46,875	FAPBM
Tag (balise)	Physical marking of MPA/LMMA boundaries	At sites level	$78,125	FAPBM
GPS	Essential equipment based on the sites for technical use (MPA delimitations etc.)	At sites level	$6,000	FAPBM
Laptop	Essential equipment based on the sites: equipment to collect data, for monitoring work	At sites level	$12,500	FAPBM
Camera	Essential equipment based on the sites: for monitoring, capitalization (photos) etc.	At sites level	$6,250	FAPBM
Infrastructure	Essential equipment based on the sites management plan, including office space, weather station, other physical marking of MPA/LMMA	At sites level	$79,728	FAPBM
TOTAL COMPONENT 3			$307,603	

8.2.7. Other Direct Costs

Table 19 Other Direct Costs

Description	**Project Justification**	**Total Project Costs**	**Responsible**
Project Management Costs (PMC)			
Office Rent, Insurance, Maintenance, Utility	Project office cost: office rent for 5 years including maintenance and utilities such as electricity, water	$24,555	MEEF
Equipment / Vehicle Running Costs	Fuel and spare parts of the car	$9,513	MEEF
Photocopying	Purchase of papers, inks and annual maintenance of project printer	$7,782	MEEF
Postage & Shipping	For physical courier	$865	MEEF
Communications (phone, fax, AV, WP)	Telecommunications cost (phone, internet.)	$26,380	MEEF
Supplies	Office furniture, computer maintenance, cleaning, security)	$8,627	MEEF
TOTAL PROJECT MANAGEMENT COSTS (PMC)		$77,721	
Monitoring and Evaluation			
Research Materials and Publications	Publication cost of reports on Best Practices and Lessons Learned (100 copies/year).	$7,500	MEEF
Equipment / Vehicle Running Costs	Vehicle fuel and spare parts.	$31,875	MEEF
Supplies	Supplies for M&E activities (flipchart, marker, paper)	$5,000	MEEF
TOTAL MONITORING AND EVALUATION		$44,375	
Component 1			

Research Materials and Publications	Materials such as roll up, flyers, documents for promotional activities to disseminate Madagascar Aichi Target action plan in coordination with MEEF	$18,750	MEEF
Photocopying	With input from environmental lawyer, MEEF to produce and translate of all official documents into Malagasy	$495	MEEF
TOTAL COMPONENT 1		$19,245	
Component 2			
Photocopying	Submission of documents to appropriate level of government for adoption.	$495	MEEF
TOTAL COMPONENT 2		$495	
COMPONET 3			
Equipment / Vehicle Running Costs	Vehicle fuel during several missions such as identifying local training needs and priorities through on-site assessments, testing baselines using METT scores.	$21,250	MEEF
Photocopying	Production of toolkit operational guidelines in appropriate languages (1000 copies)	$1,875	MEEF
TOTAL COMPONENT 3		$23,125	

8.3 PROJECT MANAGEMENT COSTS (PMC)

Table 20 PMC Summary Budget

Line item	**Total**
Salaries and Benefits	$108,704
Consultants	$10,235
Travel	$45,667
Equipment	$56,938
Other Direct Costs	$77,721
TOTAL PMC	$299,256
TOTAL COMPONENT BUDGET	$5,985,148
% OF TOTAL PROJECT BUDGET	***5%***

8.4 MONITORING AND EVALUATION

Table 21 M&E Summary Budget

Line item	**Total**
Salaries and Benefits	$130,361
Consultants	$230,919
Grants and Agreements	$206,386
Travel	$66,103
Workshops	$82,239
Equipment	$35,000
Other Direct Costs	$44,375
TOTAL M&E	$795,382
TOTAL PROJECT BUDGET	$6,284,404
% M&E OF TOTAL PROJECT BUDGET	13%

TECHNICAL APPENDICES

Appendix 1: Project Maps

Figure 5 Ecologically of Biologically Significant Marine Areas in Madagascar

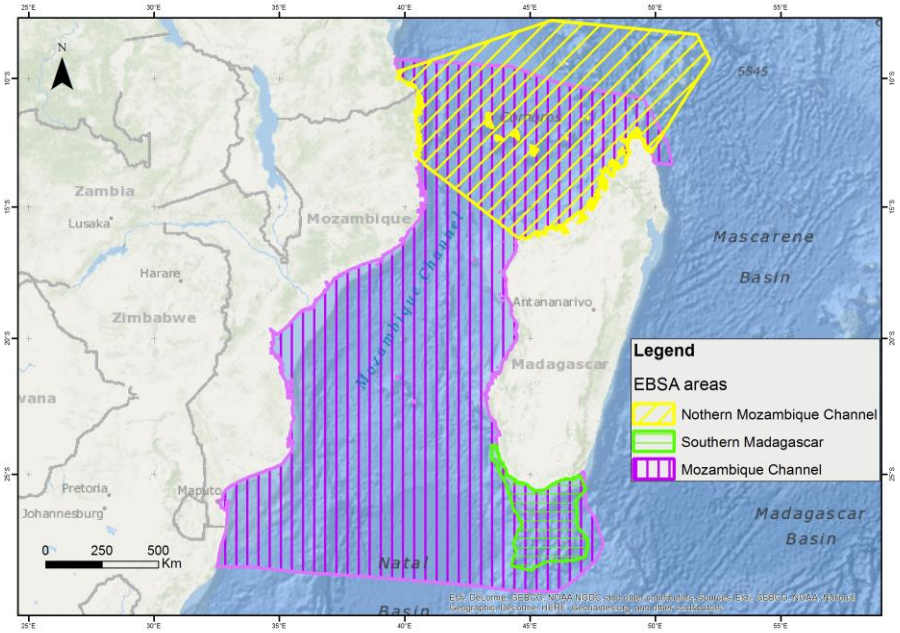


Figure 6 Northern Mozambique Channel EBSA

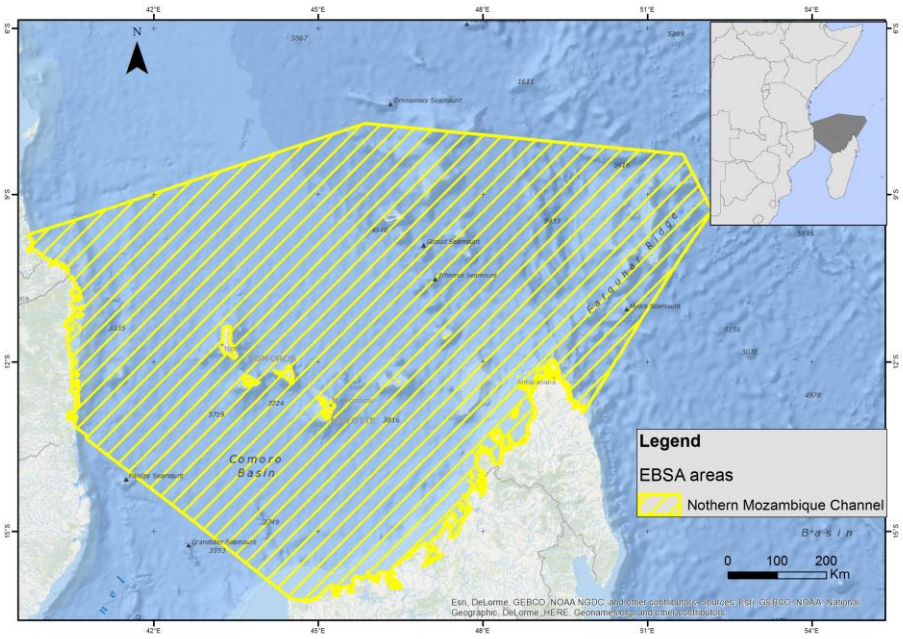


Figure 7 Mozambique Channel EBSA

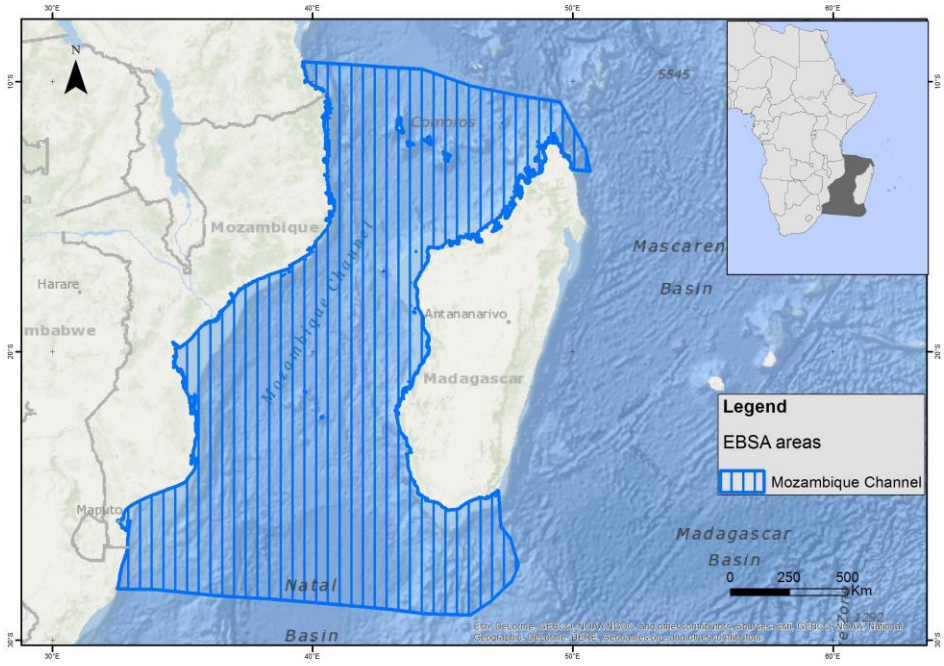


Figure 8 Southern Madagascar EBSA

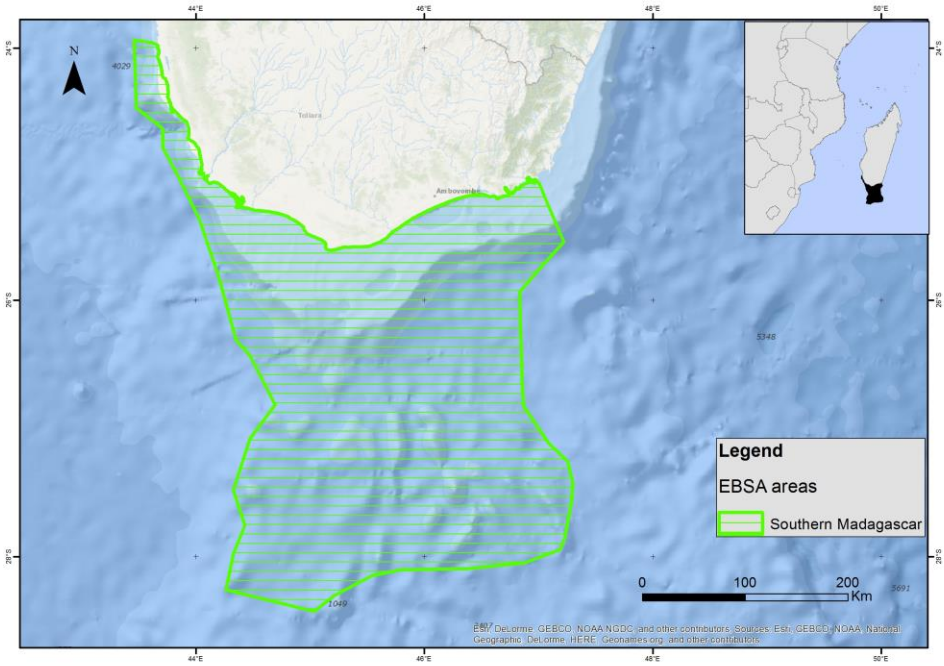
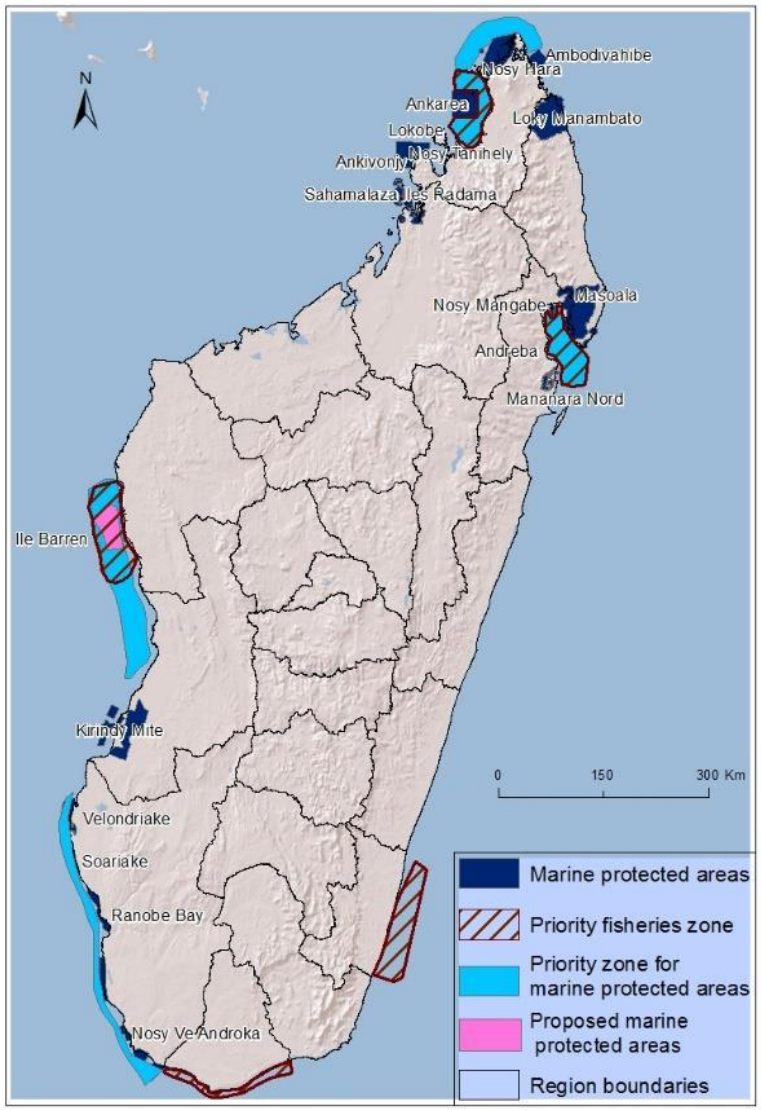
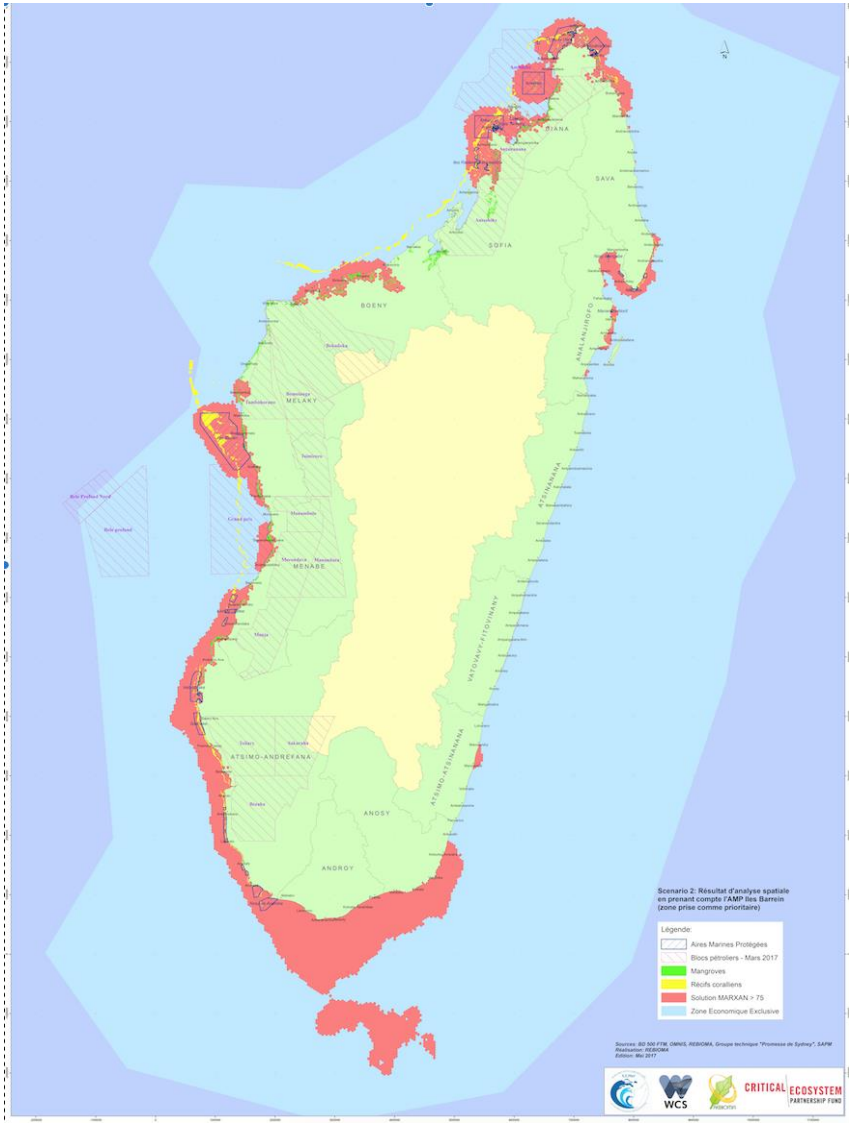


Figure 9 Maps comparing priority zones defined within the PFD (left) and the more recent SEMer/WCS priority marine biodiversity areas (right)





Appendix 2: Current Projects & Initiatives in Madagascar that the MPA Child Project will complement

Project Name	Project Description	Implementation
Strengthening Community Management of the Indian Ocean's Largest Locally Managed Marine Area, the Barren Isles	An archipelago made up of nine low-lying islands and many more sand banks scattered across 40km. working with the local communities to develop a model for locally-led fisheries management that protects the ecosystem while securing the rights of traditional fishers. Recent recognition of the area's global importance under the Ramsar Convention will reinforce the efforts led by local communities, and supported by Blue Ventures and partners, to defend this area and its resources from threats such as over-fishing and extractive industries. The project aims to build the capacity of the Vezo Miray Nosy Barren association through training and mentoring in practical skills needed to manage the association and fisheries. Obtain definitive protected status for the locally managed marine area by commissioning the formal evaluation of the protected area dossier and additional impact assessment studies, and convening community consultations. Support the implementation of the Melaky regional fisheries management plan and develop the Barren Isles Marine Protected Area as a pilot site for management measures through community consultations.	Blue Ventures through Local Communities
Building a model for innovative long-term community-based conservation of seagrass-dependent biodiversity in Madagascar	Support for community-based monitoring and management of seagrass ecosystems within Madagascar's largest locally-managed marine area (LMMA) in the Barren Islands via training community LMMA representatives in the participatory assessment and monitoring of seagrass ecosystems. The project will engage LMMA representatives in developing marine area management plans, including the establishment of seagrass reserves and local laws concerning the hunting of marine mammals; raising awareness of destructive fisheries within the LMMA; and collaborating with government authorities in the monitoring, control and surveillance of local fisheries laws within the LMMA	Blue Ventures
Fisher knowledge, awareness and behavior change for the conservation of dugongs and seagrass using the Mihari network of Locally Managed Marine Areas in Madagascar	Support dugong and seagrass conservation efforts throughout Madagascar by actively collaborating with the MIHARI network, Madagascar's national network of Locally Managed Marine Areas. The project will work closely with the MIHARI network to collect data and build the capacity of its 100+ members for monitoring of dugong populations. The data gathered will provide information on the status of dugongs and seagrass across Madagascar's LMMA network and will highlight areas for greater management support. The MIHARI network will be used to raise awareness and collect information. The Project will also investigate long-term sustainable financing mechanisms to provide further support to LMMAs and the MIHARI network.	MIHARI

Project Name	Project Description	Implementation
Using incentivized Environmental Stewardship to conserve dugongs and seagrass habitat at an identified national hotspot	Support and strengthen protection efforts in the Nosy Hara Marine Park, which has been identified as the site of highest priority for dugong conservation in the country. The project will train MNP rangers to monitor gillnet use and instruct fishers in the release of bycaught dugongs, and offer further training for MNP rangers and local community members in scientific and community-based dugong and seagrass surveys (seagrass watch, fisher sighting record programme, stranding recovery programme)	Community-Centered Conservation (C3)
Integrated approaches to enhance the conservation dugongs and seagrass ecosystems in Sahamalaza areas	To address the threats to dugongs and seagrass in the Sahamalaza National Park posed by direct hunting and fisheries by-catch as well as habitat destruction. Limited data concerning both the dugong population and the impacts of human activity are compounded by a lack of public education and community-based awareness projects, and financial support for such projects is also very limited. COSAP Sahamalaza, an association comprising Park authorities and local communities, will actively involve local communities and build their capacity for the protection of dugongs and their habitats through raising awareness, capacity building for monitoring of populations, as well as and the introduction of dugong safeguards among local fishermen.	COSAP SAHAMALAZA
Generating knowledge on dugongs, their critical habitats and threat reduction measures in North-west Madagascar:	The project will generate knowledge on dugong habitat and threats, contributing to eradicating critical knowledge gaps through: 1) seagrass habitat mapping using high resolution satellite imagery; 2) passive acoustic monitoring surveys along the NW coast to identify critical dugong habitats; and 3) community interviews in habitat hotspots to analyze threats to dugongs. The project will identify and trial community-based conservation measures to encourage local stewardship in the conservation and monitoring of dugongs and seagrasses, including: 1) a participatory process to identify tailored dugong conservation measures suitable for trial in the Ankivonjy and Ankarea MPAs; and 2) the implementation and monitoring of identified dugong conservation measures in these MPAs	WCS
Strengthening the MIHARI Network to Support Community Management of Marine and Coastal Resources in Madagascar	Support the strengthening of the MIHARI network of locally managed marine protected areas in Madagascar by developing a clear governance structure, strategic action plan and business plan to ensure MIHARI's long-term sustainability and increase its role in supporting local managers of marine areas and advocating for local management of marine areas.	Blue Ventures, WWF, WCS
Promote Sustainable Fisheries and Ecotourism with Private Sector to Reinforce the Management of Ambodivahibe Marine Protected Area, Madagascar	Forge partnerships with private sector actors that support community-based management of Ambodivahibe Marine Protected Area in Madagascar, and thereby enhance the economic well-being of local communities. Cooperate with private sector actors operating in octopus fisheries and aquaculture to build partnerships and gain access to international markets for local communities. Liaise with private sector actors operating in tourism to build potential activities to generate new income for the communities and promote local and cultural knowledge through sustainable	Conservation International

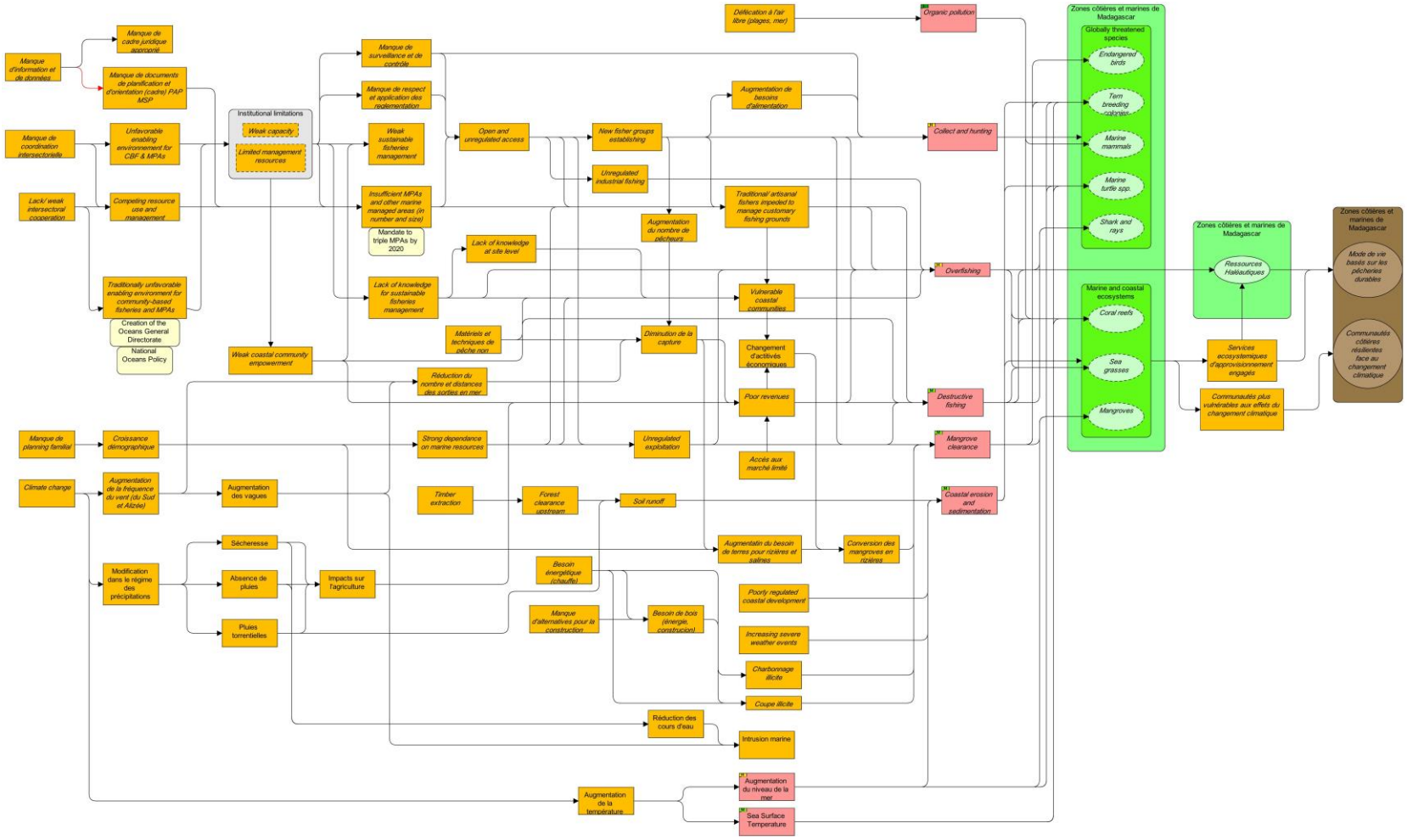
Project Name	Project Description	Implementation
	community-based ecotourism. Develop local and marketable sustainable products related to tourism to generate additional income and increase incentives to the community for their monitoring activities. Strengthen community structures and capacity to sustain all activities beyond the end of the CEPF grant period.	
Conserving the most intact mangroves of western Madagascar's Manambolo Tsiribihina	The Manambolo Tsiribihina landscape includes the largest, most intact stretches of mangroves in the western Madagascar, one of the WWF's 35 Priority Places in the Global 200 ecoregions. The Manambolo Tsiribihina mangrove forests provide an array of ecological and economic functions, which support livelihoods of about 50,000 inhabitants. The area supports approximately 70,000 ha of mangroves which are home to various endemic species listed in the IUCN red list such as the Madagascar fish eagle (Haliaeetus vociferoides, CR, and only 20 couples remaining), Madagascar sacred ibis (Threskiornis bernieri, EN), Humblot's heron (Ardea humbloti, EN), and the Bernier's teal (Anas bernieri, EN). The mangrove forests are contained in the Manambolomaty and Menabe-Antimena protected areas, both of which have temporary protection status.	WWF-US; Helmsley Charitable Trust
BMZ Mangrove and fisheries management and poverty reduction in Ambaro Bay, Madagascar (BMZ Ambaro bay project)	The project's main goal is the conservation and sustainable use of Ambaro Bay's mangrove ecosystem as a protective belt and carbon sink. Another goal is a sustainable increase in the income of the impoverished local population. Illegal fishing and logging are to be prevented. The mangrove management groups will be better trained and outfitted to regularly patrol the mangroves and implement controls at the fish landing spots. Through more effective fishing methods (mangrove crabs) and alternative income opportunities, villager's incomes will be improved. Three hundred hectares of mangroves will be reforested. Charcoal producers will learn more effective production methods that will reduce the demand for wood by up to 50%. The demand for charcoal will be further reduced through the use of energy-saving stoves in the region's urban centres. Two weather stations in the project area will contribute to improving forecasts of local climate changes, weather reports, and storm warnings.	WWF Madagascar BMZ
Improving fisheries management in Ambaro bay Madagascar	Project targets the mangroves of Ambaro Bay because it is one of the country's largest and ecologically most valuable mangrove habitats. The mangroves are an important spawning and nursery area for shrimp in the region. It provides sources of income for the local people through small scale fisheries. The project's goals are (i) the conservation and sustainable use of Ambaro Bay's mangrove ecosystem as a protective belt and carbon sink and (ii) the sustainable increase in the income of the impoverished local population.	WWF-US; MacArthur Foundation

Appendix 3: Threats Rating and Associated Conservation Targets

TARGETS → / THREATS ↓	Sharks & Rays	Marine Turtle Species	Marine Fisheries Resources	Coral Reefs	Mangroves	Seagrasses	Tern Breeding Colonies	Endangered Birds	Marine Mammals	**Summary Threat Ratings**
Overfishing	High		High	Medium		Not Specified				**High**
Collecting & hunting	High	High					Medium	Low	Low	**High**
Sea-Level rise		High	Medium	Medium	High	High	High			**High**
Coastal Erosion & Sedimentation		Low	Not Specified	Medium	Low	Medium	Low			**Medium**
Destructive Fishing	Low	Medium	Low	Medium		Low				**Medium**
Mangrove Clearance			Medium		Medium		Medium	Medium		**Medium**
Sea Surface Temperature		Medium	Medium	High			Medium			**Medium**
Organic Pollution			Low	Low	Low	Low			Not Specified	**Low**
Summary Target Rating	**High**	**High**	**Medium**	**Medium**	**Medium**	**Medium**	**Medium**	**Low**	**Low**	**High**

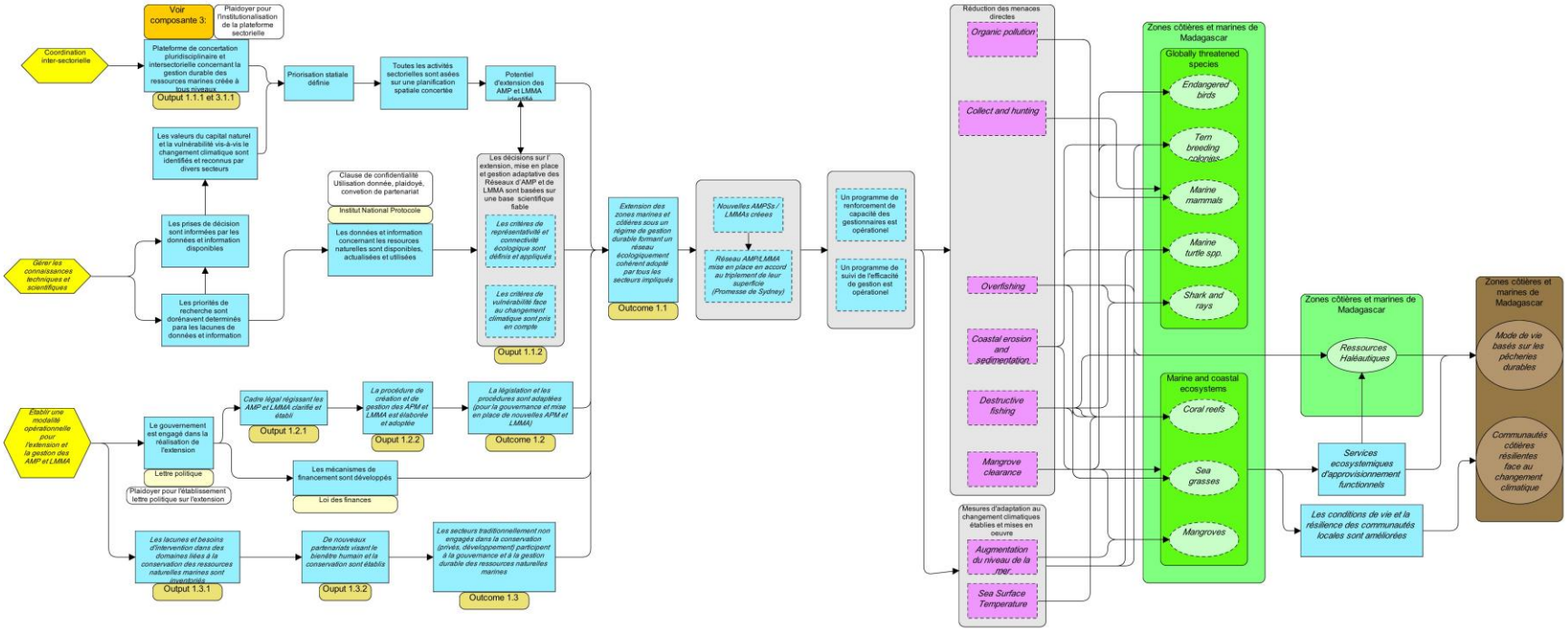
Appendix 4: Conceptual Model and Causal Chain

Figure 10 The conceptual model was defined by stakeholders in September 2016



Appendix 5: Results Chains

Figure 11 The results chains were derived from the preceding conceptual model



Appendix 8: Project workplan

OUTPUTS	Y0	Y1	Y2	Y3	Y4	Y5
COMPONENT 1						
Output 1.1.1 New KBA maps and accompanying documentation identifying priority areas for expansion, and which represent major marine and coastal ecosystems and global threatened species' conservation needs.						
Output 1.1.2 Report to define LMMA/OECM eligibility criteria to contribute to Aichi Target 11.						
Output 1.1.3 Catalogue of eligible LMMAs/OECMs directly contributing to Aichi Target 11 based on Output 1.1.2.						
Output 1.1.4 Action plan to achieve Aichi Target 11 for the marine environment, identifying partner roles and contributions, and integrating multi-sectoral interests.						
Output 1.2.1. Operational partners and proposed MPA creation/expansion sites selected.						
Output 1.2.2 Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement.						
Output 1.2.3 Gazettement proposals submitted by MEEF to government for full approval.						
COMPONENT 2						
Output 2.1.1 Review of existing regulatory framework and gap analysis.						
Output 2.1.2 Recommendations and draft regulatory text submitted to appropriate level of government by MEEF.						
Output 2.2.1. Assessment of the economic and social benefits of MPAs for justifying MPA/LMMA role in MSP.						
COMPONENT 3						
Output 3.1.1. Selection criteria for demonstration sites, eligible activities, and operational partners approved by Project Steering Committee.						
Output 3.1.2 Sub-grants issued to selected promoters/sites for improved community revenue generation, site level cost						

OUTPUTS	Y0	Y1	Y2	Y3	Y4	Y5
recovery for management activities, and for strengthened management effectiveness.						
Output 3.1.3. Mechanisms to increase community/other local stakeholder revenues developed through promoter support and private sector partnerships (where appropriate).						
Output 3.2.1 Agreements with communities brokered to reinvest a percentage of revenues in MPA/LMMA operational costs.						
Output 3.3.1 Essential infrastructures in place.						
Output 3.3.2 Standardized MPA/LMMA management toolkits developed and propagated in place.						
Output 3.3.3 Training program to support and replicate management effectiveness measures established and operational.						
COMPONENT 4						
Output 4.1.1. M&E system established, with roles and methods defined,						
Output 4.1.2. Implementation of the Project M&E Plan and subsequent review of project management approaches and strategies.						
Output 4.2.1. Compilation of Best Practices and Lessons distributed to relevant local, national and regional bodies for review and replication as required.						
Output 4.2.2 Collected and analyzed data (including progress reports and results frameworks) shared with relevant stakeholders.						
OUTPUTS	**Y0**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**
Output 1.1.1 New KBA maps and accompanying documentation identifying priority areas for expansion, and which represent major marine and coastal ecosystems and global threatened species' conservation needs.						
Output 1.1.2 Report to define LMMA/OECM eligibility criteria to contribute to Aichi Target 11.						
Output 1.1.3 Catalogue of eligible LMMAs/OECMs directly contributing to Aichi Target 11 based on Output 1.1.2.						

OUTPUTS	Y0	Y1	Y2	Y3	Y4	Y5
Output 1.1.4 Action plan to achieve Aichi Target 11 for the marine environment, identifying partner roles and contributions, and integrating multi-sectoral interests.						
Output 1.2.1. Operational partners and proposed MPA creation/expansion sites selected.						
Output 1.2.2 Sub-grants and contracts to operational partners to demonstrate the full MPA/LMMA creation/expansion process through to gazettement.						
Output 1.2.3 Gazettement proposals submitted by MEEF to government for full approval.						
COMPONENT 2						
Output 2.1.1 Review of existing regulatory framework and gap analysis.						
Output 2.1.2 Recommendations and draft regulatory text submitted to appropriate level of government by MEEF.						
Output 2.2.1. Assessment of the economic and social benefits of MPAs for justifying MPA/LMMA role in MSP.						
COMPONENT 3						
Output 3.1.1. Selection criteria for demonstration sites, eligible activities, and operational partners approved by Project Steering Committee.						
Output 3.1.2 Sub-grants issued to selected promoters/sites for improved community revenue generation, site level cost recovery for management activities, and for strengthened management effectiveness.						
Output 3.1.3. Mechanisms to increase community/other local stakeholder revenues developed through promoter support and private sector partnerships (where appropriate).						
Output 3.2.1 Agreements with communities brokered to reinvest a percentage of revenues in MPA/LMMA operational costs.						
Output 3.3.1 Essential infrastructures in place.						
Output 3.3.2 Standardized MPA/LMMA management toolkits developed and propagated in place.						

OUTPUTS	Y0	Y1	Y2	Y3	Y4	Y5
Output 3.3.3 Training program to support and replicate management effectiveness measures established and operational.						
COMPONENT 4						
Output 4.1.1. M&E system established, with roles and methods defined,						
Output 4.1.2. Implementation of the Project M&E Plan and subsequent review of project management approaches and strategies.						
Output 4.2.1. Compilation of Best Practices and Lessons distributed to relevant local, national and regional bodies for review and replication as required.						
Output 4.2.2 Collected and analyzed data (including progress reports and results frameworks) shared with relevant stakeholders.						

Appendix 9: Stakeholder Consultation Log

Date	Venue	Subject	Participants
9-5-2016	L'Hermitage, Mantasoa	5-day stakeholder meeting to develop project conceptual model and results chains	Scientific experts from MEEF, MRHP, SWIOFish2 and NGOs
8-3-2016	Hotel Le Pave	Sydney Promise Steering Committee meeting: new role of SEMer, revision of committee mandate and composition, process for the priority-setting of future MPA areas, presentation of GEF 6 MPA child project	Sydney Promise Steering Committee
12-13-2016	SEMer	Presentation of the GEF 6 Sustainable management of Madagascar marine resources programme and MPA child project and discussion on role of SEMer	SEMer, WWF MDCO, WWF US
12-13-2016	MEEF	Presentation of next steps for ProDoc development and role of MEEF	MEEF, WWF MDCO, WWFUS
12-14-2016	MRHP	Presentation of the GEF 6 Sustainable management of Madagascar marine resources programme and MPA child project and discussion on coordination with SWIOFISH child project	MRHP, SWIOFISH 2, WWF MDCO, WWF US
12-14-2016	MNP	Presentation of next steps for ProDoc development and role of MNP	MNP, WWF MDCO, WWF US
12-15-2016	FAPBM	Presentation of next steps for ProDoc development and role of FAPBM	FAPBM, WWF MDCO, WWF US
12-21-2016	WWF MDCO	Coordination mechanism for the GEF6 Sustainable Management of Madagascar Marine Resources: - Terms of reference for the Bureau de Coordination Pêche-Environnement - Role of SEMer - Process and calendar to develop the arrêté inter-ministériel	MRHP, MEEF, SEMer, SWIOFISH 2, WWF MDCO
1-4-2017	MEEF	Discussion with MEEF and FABM on ways of working	MEEF , FAPBM, WWF MDCO
2-28 to 3-2-2017	Hotel Colbert	Stakeholder planning meeting for ProDoc development	Cf. report

Date	Venue	Subject	Participants
3-2 to 6-2017	DIANA Region	Presentation of project and discussions with stakeholders	Conservation International, Madagascar National Parks, local communities in Ambodivahibe and Nosy Hara
7-11-2017	MEEF	Preparation of second stakeholder meeting	MEEF , SEMer, WWF MDCO
7-17-2017	MEEF	Discussion on institutional arrangements, site selection and grant mechanisms	MEEF , SEMer, WWF MDCO
7-18 and 19-2017	Hotel Colbert	Stakeholder meeting on ProDoc progress and next steps	Government and NGO stakeholders
7-25-2017	MEEF	Governance of the project	MEEF, SEMer, WWF MDCO
8-9-2017	MEEF	Technical meeting to review the approach for the implementation of the Sydney Promise and creation of MPAs and LMMAs	MEEF, SEMer, MRHP, WWF MDCO
9-5-2017	MEEF	Terms of Reference and composition of PMU and site-level coordination mechanisms	MEEF, SEMer, MRHP, SWIOFISH 2, WWF MDCO
10-10-2017	MEEF	METT baselines with promoters	MEEF, WWF MDCO, Blue Ventures, CI, WCS, Durrell, Asity, Madagascar National Parks
12-19-2017	MRHP	Update on ProDoc progress and coordination mechanisms between the two child projects	SWIOFISH 2, MEEF, WWF MDCO
12-20-2017	MEEF	Update on ProDoc progress	MEEF, WWF MDCO
2-6-2018	MEEF	Update on ProDoc progress, refining of institutional arrangements and project governance	MEEF, SEMER, WWF MDCO
2-7-2018	WWF	Review of Table B	MEEF, SEMER, WWF MDCO
2-9-2018	MRHP	Site-level coordination with SWIOFISH 2	MEEF, SEMER, SWIOFISH2, WWF MDCO
2-12-2018	FAPBM	Refining roles and responsibilities between MEEF and FAPBM	FAPBM, MEEF, WWF MDCO
7-3-2018	SEMer	Refining roles and responsibilities between MEEF and SEMER, PMU composition, recruitment process, hosting of project	MEEF, SEMer, WWF MDCO
3-11 to 22-2018	Menabe Region	Safeguards mission meetings	Blue Ventures, WWF, Fanamby NGO, regional authorities, regional service of MRHP, local

Date	Venue	Subject	Participants
			associations and platforms, local community members
14-3-2018	SEMer	Review of Table B	MEEF, SEMer, WWF MDCO
21-3-2018	WWF	Restitution of WWF US safeguards mission	MEEF, SEMer, WWF US, WWF MDCO
21-3-2018	MEEF	Review ProDoc progress and next steps until submission for GEF CEO endorsement	MEEF, WWF US, WWF MDCO
23-3-2018	MEEF	Review ProDoc progress and next steps until submission for GEF CEO endorsement	MEEF, WWF US, WWF MDCO
23-3-2018	FAPBM	Review ProDoc progress and next steps until submission for GEF CEO endorsement, financial and contracting mechanisms	FABPM, WWF US, WWF MDCO
27-3-2018	MEEF	Planning of actions required for submission for GEF CEO endorsement	MEEF, SEMer, WWF MDCO
5-4-2018	MEEF	Finalization of Table B, safeguards and terms of reference for WWF technical assistance	MEEF, SEMer, WWF MDCO
6-4-2018	SEMer	Restitution of CEPF priority-setting of priority areas for MPAs	MEEF, SEMer, NGOs, Sydney Promise Steering Committee
25-4-2018	MEEF	Update on actions required for submission for GEF CEO endorsement	MEEF , SEMer, WWF MDCO
4-5-2018	MEEF	Update on actions required for submission for GEF CEO endorsement: co-financing letters, safeguards, budget and preparation of final validation workshop	MEEF , SEMer, WWF MDCO
5-16-2018	Hotel Colbert	Final validation workshop with stakeholders	Government, regional and NGO stakeholders
5-21 to 30-2018	MEEF, WWF	Budgeting sessions	MEEF, FAPBM, WWF MDCO

Appendix 9: Monitoring & Evaluation Plan (GEF Results Framework)

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
Objective indicator 1:	# hectares MPAs and eligible LMMAs managed and with protected status	**Eligible LMMAs** = All LMMAs in Madagascar that do not overlap with MPAs. LMMAs that exist within MPAs will count under MPA umbrella, whereas LMMAs outside of MPAs will be counted separately to avoid double counting **Managed =** With an active local governance body and management system **Protected Status** = Creation Initiative documented and submitted (Procedure I) Temporary protection attained (Procedure II) Full legal protection (Procedure IV) / ready for gazettement (Procedures defined in Section 1.2.2). **Target is Cumulative per Procedure**	MEEF records and REBIOMA database MIHARI database The hectarage of MPAs and eligible LMMAs will be sourced and then summed for each procedure in the creation process/protected status.	Annual	PMU/WWF	By Protected Status (Procedure I, Procedure II, Procedure IV) and Eligible LMMA	Procedure I: 1,080,000 ha + 431, 700 ha Procedure II: 1,080,000 ha + 431, 700 ha Procedure IV: 1,080,000 ha LMMA: 65 sites but surface area to be determined later once the eligibility criteria are defined	Procedure I: 1,080,000 ha + 431, 700 ha Procedure II: 1,080,000 ha + 431, 700 ha Procedure IV: 1,080,000 ha TBD	Procedure I: 1,080,000 ha + 431, 700 ha + 300,000 ha Procedure II: 1,080,000 ha + 431, 700 ha Procedure IV: 1,080,000 ha + 431, 700 ha TBD	Procedure I: 1,080,000 ha + 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 1,080,000 ha + 431, 700 ha + 200,000 ha Procedure IV: 1,080,000 ha + 431, 700 ha TBD	Procedure I: 1,080,000 ha + 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 1,080,000 ha + 431, 700 ha + 200,000 ha + 300,000 ha Procedure IV: 1,080,000 ha + 431, 700 ha + 200,000 ha TBD	Procedure I: 1,080,000 ha + 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 1,080,000 ha + 431, 700 ha + 200,000 ha + 300,000 ha + 100,000 ha Procedure IV: 1,080,000 ha + 431, 700 ha + 200,000 ha TBD	
Objective indicator 2:	# ha of MPAs with increased METT score	**MPA =** marine protected areas with direct project intervention **Increased METT Score** = any positive increase in METT score **Target is Cumulative**	Will use METT Score card to reference increases. Also, any increase in creation procedure will automatically mean an increase in METT. Scoring begins for new MPAs once temporary protection status (completed Procedure II) is attained	Annual starting year 3	PMU/DSAP	Separated by procedure II and procedure IV status (in process vs formal protection) Will separately be disaggregated by site, but hectares will be aggregated in RF.	Not applicable (2018 METT score for each MPA is noted separately comparison purpose)	--	--	1,080,000 ha + 431, 700 ha + 200,000 ha show increase in METT score with Procedure II status 1,080,000 ha + 431, 700 ha show increase in METT score with Procedure IV status	1,080,000 ha + 431, 700 ha + 200,000 ha + 300,000 ha show increase in METT score with Procedure II status 1,080,000 ha + 431, 700 ha + 200,000 ha show increase in METT score with Procedure IV status	1,080,000 ha + 431, 700 ha + 200,000 ha + 300,000 ha + 100,000 ha show increase in METT score with Procedure II status 1,080,000 ha + 431, 700 ha + 200,000 ha show increase in METT score with Procedure IV status	Effective management and sustainability of the MPAs is part of the Sydney Promise and is already on the table with Sydney Promise Steering Committee

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
Outcome 1.1 Aichi Target 11 implementation strategy and action plan for the Madagascar marine and coastal environment developed based on best available science.	Area of Madagascar's marine and coastal estate in KBAs (ha)	**Target is non-cumulative**	REBIOMA GIS files / database	One-time	PMU/ DSAP	--	0	--	2,500,000 ha	--	--	--	List of officially recognized KBA (with surface areas) using the updated IUCN criteria, approved by Government & IUCN
	Status of Strategy and action plan approved by Sydney Promise Steering Committee	**Action Plan** = document defining actions to be taken to deliver on national commitment to Aichi Target 11 and including roles, responsibilities. Support, potential funding sources and specific targets **Target is cumulative**	Sydney Promise Steering Committee reports / DSAP communication	Annual	PMU, DSAP	--	Does not exist	Draft plan established	Plan approved and implementation begins	Plan implemented	--	--	Single document presented initially by end of year 1 and then submitted to government by MTR
Outcome 1.2 Proposals for new MPAs/LMMAs or extension of existing ones, covering an additional >1,000,000 ha submitted to government for gazettement in areas that capture key biodiversity and habitats of threatened species, based on the action plan protection status.	# hectares of newly created or extended MPAs obtaining protection status	**MPAs** = marine protected areas recognized by Madagascar law **Creation phase** = Procedure I in creation process. Protection status would include as follows: **Temporary protection** = intermediary status proposal – Procedure II status **Formally Submitted** = gazettement proposal completed – Procedure IV status **Target is Cumulative**	Official Government Gazettement / decree Grantee reports--PMU has checklist of information grantee must provide	Annual	PMU DSAP	Ha by creation phase, temporary and full protection status.	Procedure I: 431, 700 ha Procedure II: 431, 700 ha	Procedure I: 431, 700 ha Procedure II: 431, 700 ha	Procedure I: 431, 700 ha + 300,000 ha Procedure II: 431, 700 ha Procedure IV: 431, 700 ha	Procedure I: 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 431, 700 ha + 200,000 ha : Procedure IV: 431, 700 ha	Procedure I: 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 431, 700 ha + 200,000 ha + 300,000 ha Procedure IV: 431, 700 ha + 200,000 ha	Procedure I: 431, 700 ha + 300,000 ha + 300,000 ha Procedure II: 431, 700 ha + 200,000 ha + 300,000 ha + 100,000 ha Procedure IV: 431, 700 ha + 200,000 ha	

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
	# new LMMAs	**LMMA =** eligible for Aichi Target 11, new, directly supported by the project **Target is Cumulative**	DSAP mapping	Midterm and end of project	PMU DSAP	By Site	0 (existing 65 LMMA)	--	--	TBD	--	TBD	Mapping is not currently systematic, but DSAP will require full mapping in the future.
Outcome 2.1 Improved regulatory framework to address specific MPA and LMMA needs including streamlined creation procedures, governance and management regimes, user rights and contribution to sustainable development.	Score for regulatory framework improvement process	**Regulatory Framework** = to include streamlined PA creation procedure, stakeholder/user rights, partnerships for development The scorecard has thematic ratings including governance & management standards, streamlining the MPA creation process, adaptation to the marine environment and gender considerations. For each criterion, there are four measures of progress with a numerical score option of 0-3 (3 representing most progress). This gives a highest possible score of 18, the score intervals of: 0-6 = little or no progress, 7-12 measurable progress, and 13-18 high degree of progress **Target is not Cumulative**	Adopted Regulatory Framework available for confirmation through PMU and EA Scorecard	Annual (completed by Year3)	PMU / M&E expert	By MPA and by LMMA Frameworks where appropriate	6 (June, 2018)	10	TBD	15	--	--	Process will be completed by Year3
Outcome 2.2 Increased MEEF capacity to defend and promote MPAs and LMMAs for sustainable development	Level of commitment & action of MEEF vis-à-vis MPA & LMMA promotion (scoring)	'**commitment and action'=**:The extent to which MEEF has: a) engaged in; b) adopted and/or c) implemented policies or practices which are more environmentally and socially sustainable, pro-poor, gender-sensitive and climate resilient regarding MPA & LMMA promotion	Scorecard adapted from Commitment & Action Tool adopted by WWF. This tool was developed by UK Department for International Development (DFID/UKAid)	Annual	PMU/DSAP	Not Applicable	Level 2 (June 2018)	Level 2	Level 3	Level 4	Level 4	Level 4	No formal requirement for PAs to be included into MSP process

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
Outcome 3.1 Expanded options for increased, diversified, and environmentally sustainable revenue sources for improved living conditions of coastal communities.	# of new opportunities for local communities to diversify their revenue sources &/or living conditions	**New Opportunities =** new development projects supported by the project that are accessible put in place by promoters and community partners to improve their living conditions and sources of revenue **Living conditions =** are the everyday environment of people, where they live, play and work, including their means for food, energy and access to clean water, to education. **Targets shown here are cumulated from all sites supported by the project**	Annual survey to sample community where project activities are increasing new opportunities. See "who column." Grantees reports	Annual	PMU/ M&E officer n consultation with MPA/LMMA promoters and SWIOFish2	By site, Gender and Value chains	0	0	4	10	16	20	Initially grants will be issued to promoters who are working in relatively well-established MPA/LMMA Subsequently, the new MPA/LMMA established on component 1 would be expected to learn from the existing one and adapt their results to their conditions as appropriate
	% of households reporting improved revenue generated &/or improved living conditions	**Living conditions =** are the everyday environment of people, where they live, play and work, including their means for food, energy and access to clean water, to education **Target is Cumulative**	Survey (will be done jointly with above indicator)	Annual	PMU/ M&E officer n consultation with promoters	By gender and by value chain/ activity	0	0	5%	15%	35%	50%	Will get real-time figure of # households involved disaggregated by gender) when sites selected. Right now cannot say the baseline number of households.
Outcome 3.2 Increased revenue to cover operational costs at MPA & LMMAs site level.	% of CBOs contributing to voluntary management funds	**CBOs =** community base organizations directly affected by project. **Voluntary management funds** = CBO contributions to MPA or LLMA management fund **Target is Cumulative**	CBO records and site reports	Annual	MPA or LMMA manager	Data aggregated in Results Framework. Disaggregated by CBO/village (data kept separate)	0	0	3%	10%	50%	> 80%	Based on the number of demonstration sites funded directly by the project

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
Outcome 3.3 Enhanced management effectiveness of selected demonstration MPA and all LMMA sites	No. of selected MPA sites supported by the project with improved effective management score according to METT	**Sites =** LMMA/MPA or OECM sites selected as on-the-ground demonstrations for the MPA Child Project based on the criteria defined in the project Document and as fine-tuned and agreed by the Sydney Promise Committee. LMMAs will not be double counted in case of overlap with MPA. **Target is not cumulative**	METT tool	Annual	MPA or LMMA manager PMU/ M&E officer DSAP	By MPA	0 MPA	1 MPA	2 MPA	3 MPA	4 MPA	8 MPA	METT is only applicable to MPA ; measurement will begin at completion of procedure II
	% of LMMA sites in Madagascar	**LMMA =** Locally managed marine area, may be embedded in an MPA or be independent. LMMAs or equivalent of OECMs (other effective area-based conservation measures) defined by IUCN **Target is not cumulative**	Note: Currently METT tool cannot be used to assess LMMAs, in its current format. A project output will be to establish a METT equivalent tool specifically for LMMA. Once it has been tested, it will be rolled out LMMAs will not be double counted in case of overlap with MPA	Annual starting Y3	MPA or LMMA manager PMU/ M&E officer DSAP	By LMMA	N/A LMMA	N/A	N/A	First evaluation of LMMA	50%	100%	The new LMMA effectiveness tool will be required by all LMMA in Madagascar
Outcome 4.1 M&E plan finalized with on-time data collection, reflection and reporting to inform adaptive management and ensure delivery of project results.	No. of Reflection workshops to validate project strategy	**Reflection Workshops** = Stakeholder meetings to review inputs and feedback from M&E plan, to revise theory of change and propose changes to work plans and strategies **Target is not Cumulative**	M&E data, input from PMU and partners, theory of change documents, work plans	Annual	PMU and key partners		0	1	1	1	1	1	
Outcome 4.2 M&E data, lessons learned, and best practices are transparent, participatory and shared with relevant stakeholders to contribute to knowledge management	No. of reports on best practice and lessons drafted and shared	**Reports** = Reports on BP&Ls to the Project Steering Committee and Regional Bodies (e.g. Nairobi Convention, IW:LEARN). Must be both drafted and shared to count. **Target is cumulative.**		Annual	PMU/WWF		0	0	1	2	3	4	
	No of views and likes of project FB Page	**Views & Like =**Number of people interacting through social media network (viewing a specific Facebook page and post comments / like) **Target is cumulative**	Google analytics	Annual	PMU / Communication officer	By gender; By countries	0	TBD	TBD	TBD	TBD	TBD	

								Targets					
	Indicator / unit	**Definition (note if cumulative)**	**Method/ source**	**When**	**Who**	**Disaggregation**	**Baseline (2018)**	**YR1**	**YR2**	**YR3**	**YR 4**	**YR 5**	**Notes/ Assumptions**
	# International fora where project presents	**International Fora** = Appropriate conferences and Symposia where BP&P from project would be of value to the audience **Target is cumulative.**	PMU reports	Annual	PMU/WWF/Govt	Will be aggregated but names of conference/fora will be noted.	0	0	1	3	4	5	Limited to fora of direct interests of the project

Appendix 10: Lessons Informing Project Design

The Madagascar MPA Child Project incorporates lessons learned from a number of closed projects that took place in Madagascar. Below is a summary of key lessons and how they have been applied to the MPA Child Project design.

Summary of Key Lesson	Application to MPA Child Project
Focus on building the capacity of various levels of government to maximize results, build country ownership, and ensure sustainability	The project will work with relevant ministries, and at different levels (national, regional, local), to ensure coordination of project activities.
Strengthen existing institutions (agencies, platforms) rather than create new institutions. Building the capacity of existing institutions reduces staffing issues, confusion over roles and responsibilities, turnover, brain drain, and increases ownership and government capacity.	The project is taking profit of several existing institutions. (1) The project will work closely with the Sydney Promise Steering Committee to accelerate achievement of Aichi Target 11, while also ensuring government ownership. (2) The project is also utilizing MIHARI, which provides a solid platform for dialogue between government, community members and NGOs and NGO promoters at the national level
For policy development, maximize consistency of different sectoral laws and policies, fill gaps and address conflicting policies	The project will provide recommendations for simplifying existing regulatory frameworks that guide creation of MPAs/LMMAs. An analysis identifying gaps and any conflicting laws/policies will preface these recommendations. The project will also support the initial studies for MSP, with the ultimate goal of providing inter-sectoral coordination.
Incentives for sustainable natural resource management should be provided to community groups—the revenue should be sufficient to offset costs for resource protection, and revenue should be distributed to the right people.	Component 3 of the project seeks to generate revenue for local communities. The project will build on successful examples where revenue is tied to sustainable resource management, to benefit both marine resources and community livelihoods.
Building capacity on conservation techniques needs to be coupled with land tenure security.	Through Component 2, the project will provide recommendations to improve/recognize user rights in existing regulatory frameworks. Through Component 3, the project will build capacity around effective management.
The M&E plan should prioritize indicators and focus on tracking outcomes rather than activities. The M&E plan should be used for	The M&E Plan was developed to track project progress at the outcome and objective level. As such, the number of indicators was limited. The M&E plan

Summary of Key Lesson	Application to MPA Child Project
adaptive management purposes, with responsibilities and oversight made clear. Qualitative data is helpful for determining the quality of the outputs produced. Quality control by an independent evaluator would be helpful.	includes an annual reflection workshop that will be used to identify lessons learned and measures for adaptive management. Qualitative data will be provided in the 6-monthly project progress reports. An independent evaluation will be done at midterm and close, however the PMU will do quality assurance of indicators on an annual basis.
Governance structure • High turnover of staff can create difficulties. Recruiting national or international technical assistance can fill a human resources gap and provide support to the PMU. • The governance structure should avoid brain-drain	The project governance structure recruits staff from within government and externally, to avoid brain drain. In addition, WWF Madagascar will provide technical assistance and institutional knowledge on the project should any turnover occur.
If equipment is given, resources should be set aside for maintenance and repair—this will ensure the equipment is not wasted or underutilized.	Equipment is budgeted within the project, and maintenance costs have been provided to ensure all equipment is fully utilized throughout the length of the project.

Appendix 11: References

Antona, M., Montpellier, C.T., Motte, E., Salles J-M., Aubert, S. and Ratsimbarison, R. 2002. Property rights transfer in Madagascar biodiversity policies. BioEcon Rome meeting, May 30-31, 2002

ASCLME 2012a. Transboundary Diagnostic Analysis for the western Indian Ocean. Volume 2: Diagnostic Analysis

ASCLME 2012b. National Marine Ecosystem Diagnostic Analysis. Madagascar. Contribution to the Agulhas and Somali Current Large Marine Ecosystems Project (supported by UNDP with GEF grant financing).

Benbow, S., Harris, A. 2011. Managing Madagascar's octopus fisheries. Proceedings of the Workshop on Octopus cyanea fisheries, 5-6 April 2011, Toliara. Blue Ventures Conservation, London.

Brenier, B., Vogel, A., Integrating conservation and development in Madagascar's Marine Protected Areas. In FAO Fisheries Technical Paper No. 603. 2017. Marine protected areas: Interactions with fishery livelihoods and food security. FAO, Rome. P.97-110.

CBD (2016). Progress in the implementation of the Convention and the Strategic Plan for Biodiversity 2011- 2020 and towards the achievement of the Aichi Biodiversity Targets (CBD/COP/DEC/XIII/2).Ceballos, G., Ehrlich, P. and Dirzo, R. 2017. 'Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines.' Proceedings of the National Academy of Sciences. PNAS 2017. doi.org/10.1073/pnas.1704949114

Cinner, J., M. M. P. B. Fuentes, and H. Randriamahazo. 2009. Exploring social resilience in Madagascar's marine protected areas. Ecology and Society 14(1): 41.

Conand C. 2008. Population status, fisheries and trade of sea cucumbers in Africa and Indian ocean. In: Toral- Granda V, Lovatelli A and Vasconcellos M. (Eds) Sea cucumbers. A global review on fishery and trade.

Cripps, G and Harris, A. (2009) Community creation and management of the Velondriake marine protected area. Blue Ventures Conservation Report. Blue Ventures Conservation, London.

Diz, D., Marine Policy. 2017, http://dx.doi.org/10.1016/j.marpol.2017.08.019.

FAO Fisheries Technical Paper No. 516. Sea cucumbers. A global review of fisheries and trade. 2008. FAO, Rome. 317pp.

FAO Fisheries Technical Paper No. 603. 2017. Marine protected areas: Interactions with fishery livelihoods and food security. FAO, Rome. 172 pp.

Fennessy S. 2012. Retrospective analysis of existing data on shallow-water trawl fisheries for crustaceans in the South West Indian Ocean. Specialist report prepared for the South West Indian Ocean Fisheries Project (SWIOFP). Oceanographic Research Institute, Durban, South Africa. 65 pp.

Franken, N. (2009). Reducing Corruption in Public Education Programs in Africa: Instruments and Capture in Madagascar. LICOS Discussion Paper No. 204. Retrieved May 14, 2014 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1414725.

Giri, C. and Muhlhausen. 2008. Mangrove forest distributions and dynamics in Madagascar (1975-2005). Sensors 8 (2104-2117).

Giri, C. Ochieng E., Tieszen, L.L., Zhu, Z., Singh, A., Loveland, T., Masek, J. and Duke, N. 2011. Status and distribution of mangrove forests of the world using earth observation satellite data Global Ecology and Biogeography, (Global Ecol. Biogeogr.) (2011) 20, 154–159.

Harris A 2007 ‘‘To live with the Sea’’ Development of the Velondriake Community-Managed Protected Area Network, Southwest Madagascar. Madag Conserv Dev 2.

Harris, A. 2011. Out of sight but no longer out of mind: a climate of change for marine conservation in Madagascar. Madagascar Conservation & Development. 6, 1, pg. 7.

INSTAT,2013a. Madagascar millennium development goals national monitoring survey. INSTAT, Antananarivo. 47 pages.

INSTAT, 2013b. Enquête nationale sur le suivi des objectifs du millénaire pour le développement à Madagascar. Objectif 03, Promouvoir l’égalité des sexes et l’autonomisation des femmes. INSTAT, Antananarivo. 74 pages plus annexes.

Jonas, H.F., Barbuto, V., Jonas, H.C. Kothari, A. & Nelson, F. 2014. New steps of change: Looking beyond protected areas to consider other effective area-based conservation measures. Parks 20.2: 111-128.

Jonas, H.C., Matallana-Tobon, C., Wright, K.S, Nelson, F. & Ens, E. 2017. Will ‘other effective area-based conservation measures’ increase recognition and support for ICCAs?. Parks **23.2** 63-78.

Kiszka J and van der Elst R. 2012. Elasmobranchs. In Van der Elst R. (Ed) Mainstreaming biodiversity in Fisheries management: a retrospective analysis of existing data on vulnerable organisms in the South West Indian Ocean. A specialist report prepared for the South West Indian Ocean Fisheries Project (SWIOFP). Oceanographic Research Institute, Durban, South Africa. pp 77-100

Le Manach F., Gough, C., Harris. A., Humber, F., Harper, S. and Zeller, D. 2012, Unreported fishing, hungry people and political turmoil: the recipe for a food security crisis in Madagascar? Marine Policy doi:10.1016/j.marpol.2011.05.007

Le Manach, F., Gough, C., Humber, F., Harper, S. and Zeller, D. 2011. Reconstruction of total marine fisheries catches for Madagascar (1950-2008). pp. 21-37. In: Harper, S. and Zeller, D. (eds.) Fisheries catch reconstructions: Islands, Part II. Fisheries Centre Research Reports 19(4). Fisheries Centre, University of British Columbia [ISSN1198-6727].

Maharavo, J., Razafinjatova, P., Oliver, T.A., Rabearisoa, A. (editors). 2011. A marine biodiversity assessment of the extreme northeast of Madagascar. Conservation International, Antananarivo. 80 pages.

Marsh, H. and Sobtzick, S. 2015. *Dugong dugon*. The IUCN Red List of Threatened Species 2015: e.T6909A43792211. http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T6909A43792211.en. Downloaded on **20 June 2017**.

Marsac, F., R. Barlow, J.F. Ternon, F. Ménard and M. Roberts. Ecosystem functioning in the Mozambique Channel: Synthesis and future research. In Deep Sea Research Part II: Topical Studies in Oceanography - Volume 100, Pages 212-220 (February 2014)

McKenna S.A. and G.R Allen, eds. 2003. A Rapid Marine Biodiversity Assessment of Northwest Madagascar. Bulletin of the Rapid Assessment Program 31, Conservation International, Washington, DC.

McVean AR, Walker SCJ, Fanning E. 2006. The traditional shark fisheries of southwest Madagascar: a study in the Toliara region. Fisheries Research 82: 280-289

MEEF (2008). Rapport final, Manuel de procedure de creation des aires protégées terrestres du système des aires protégées de Madagascar, version definitive. 59 pages.

Nadon, M.O., Griffiths, D. and Doherty, E. 2005. The coral reefs of Andavadoaka, southwest Madagascar. Blue Ventures Conservation Report.

Nadon, M., Griffiths, D., Doherty, E., Harris, A. 2007. The Status of Coral Reefs in the Remote Region of Andavadoaka, Southwest Madagascar. Western Indian Ocean J. Mar. Sci. Vol. 6, No. 2, pp. 207–218.

Obura D (2012). The Diversity and Biogeography of Western Indian Ocean Reef-Building Corals. PLoS ONE 7(9): e45013. doi:10.1371/journal.pone.0045013

Obura, D.O., Church, J.E. and Gabrié, C. 2012. Assessing Marine World Heritage from an Ecosystem Perspective: The Western Indian Ocean. World Heritage Centre, United Nations Education, Science and Cultural Organization (UNESCO). 124 pp.

Obura D., Di Carlo, G., Rabearisoa, A. and Oliver, T. (editors). 2011. A Rapid Marine Biodiversity Assessment of the coral reefs of northeast Madagascar. RAP Bulletin of Biological Assessment 61. Conservation International. Arlington, VA.

Oleson, K. (2011) TEEB case: Taking an Ecosystem Service Perspective in Velondriake Locally Managed Marine Area. Available at: TEEBweb.org

Razakanirina, H. 2012. Eco-morphologie et vulnérabilité au changement climatique des mangroves de la Réserve de Biosphère de Sahamalaza. UNESCO MAB report.

Rocliffe S, Peabody S, Samoilys M, Hawkins JP (2014) Towards A Network of Locally Managed Marine Areas (LMMAs) in the Western Indian Ocean. PLoS ONE 9(7): e103000. doi:10.1371/journal.pone.0103000.

Rogers H.M., Glewa L., Honzák M., Hudson M.D., 2010. Landscape and Urban Planning 96. 48–56. Elsevier pub.

Robson, L., Holston, M., Savitzky, C. and Mohan, V. 2017. Integrating Community-Based Family Planning Services with Local Marine Conservation Initiatives in Southwest Madagascar: Changes in Contraceptive Use and Fertility. Studies in Family Planning, 48: 73–82. doi:10.1111/sifp.12016.

Ro´nadh Cox, Paul Bierman, Matthew C. Jungers, and A. F. Michel Rakotondrazafy. 2009. Erosion Rates and Sediment Sources in Madagascar Inferred from Be Analysis of Lavaka, Slope, and River Sediment. The Journal of Geology, volume 117, p. 363–376. The University of Chicago.

Skjortnes, M., & Zachariassen, H. H. (2010). 'Even with higher education you remain a woman': a gender perspective on higher education and social change in the Toliara region of Madagascar. Gender and Education, 22(2), 193-207.

Vincent, I.V., Hincksman, C.M.,I. R. Tibbetts, J.R, & Harris, A. 2011. Biomass and Abundance of Herbivorous Fishes on Coral Reefs off Andavadoaka, Western Madagascar. Western Indian Ocean J. Mar. Sci. Vol. 10, No. 1, pp. 83-99.

Westerman, K. & Benbow, S. 2013. The role of women in community-based small-scale fisheries management: the case of the southern Madagascar octopus fishery. Western Indian Ocean J. Mar. Sci. Vol. 12. No. 2, pp. 119-132, 2013 © 2014 WIOMSA.

Westerman K. & Gardner C.J. 2013. Adoption of socio-cultural norms to increase community compliance in permanent marine reserves in southwest Madagascar. Conserv Evid: 4–9.

Westerman, K., Oleson, K.L.L. & Harris, A.R. 2013. Building Socio-ecological Resilience to Climate Change through Community-Based Coastal Conservation and Development: Experiences in Southern Madagascar. Western Indian Ocean Journal of Marine Science, 11 (1), pp. 87-97.

Woodley, S., Bertzky, B., Crawhall, N., Dudley, N. Londono, J.M., MacKinnon, K., Redford, K. & Sandwith, T. 2012. Meeting Aichi Target 11: What does success look like for protected area systems? Parks 18.1: 23-36.

Appendix 12: Ministerial Agreement